

ALMANAC

XI

PLANETARY  
PHENOMENA OF  
SATURN IN BCE

**The almanac XI contains a list of planetary phenomena of Saturn from the 6th millennium BCE to the 1st millennium BCE, from the 54th century BCE to the 1st century BCE.**

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 1

Attention, astronomical year style is used: The year -5400 in astronomical counting style is the year 5401 BCE in historical counting style.

desc. node	-5400 Apr 07 j 17:42	24° $\mathbb{M}$ 57'22	minimum elong	-5394 Mar 11 j 22:57	9° $\approx$ 42'24	2°22'19
retrograde	-5400 Apr 17 j 05:44	25° $\mathbb{M}$ 01'58	max. Earth dist.	-5394 Mar 12 j 15:33	9° $\approx$ 47'57	9.83338 AU
opposition	-5400 Jun 26 j 01:21	21° $\mathbb{M}$ 34'28	0°-8'-40	morning rise	-5394 Mar 30 j 01:14	12° $\approx$ 06'32
min. Earth dist.	-5400 Jun 26 j 08:29	21° $\mathbb{M}$ 33'04	8.33274 AU		-5394 Apr 22 j 01:28	15° $\approx$
direct	-5400 Sep 01 j 11:05	18° $\mathbb{M}$ 11'56		retrograde	-5394 Jul 15 j 07:15	20° $\approx$ 45'35
evening set	-5400 Dec 10 j 17:19	25° $\mathbb{M}$ 51'23		min. Earth dist.	-5394 Sep 19 j 11:42	17° $\approx$ 16'30
				opposition	-5394 Sep 20 j 01:33	17° $\approx$ 13'35
conjunction	-5400 Dec 27 j 22:33	28° $\mathbb{M}$ 02'59	0°-23'-15		-5394 Oct 18 j 19:35	15° $\mathbb{R}$ $\approx$
minimum elong	-5400 Dec 27 j 22:32	28° $\mathbb{M}$ 02'59	0°23'32	direct	-5394 Nov 24 j 22:39	13° $\approx$ 43'52
max. Earth dist.	-5400 Dec 27 j 14:40	28° $\mathbb{M}$ 00'28	10.25877 AU		-5394 Dec 31 j 17:59	15° $\approx$
	-5399 Jan 12 j 05:16	0° $\mathbb{X}$		evening set	-5393 Mar 09 j 18:11	22° $\approx$ 11'18
morning rise	-5399 Jan 14 j 09:10	0° $\mathbb{X}$ 16'21				
retrograde	-5399 May 01 j 15:18	8° $\mathbb{X}$ 27'54		conjunction	-5393 Mar 27 j 19:58	24° $\approx$ 34'42
opposition	-5399 Jul 09 j 23:24	4° $\mathbb{X}$ 58'42	0°-50'-9	minimum elong	-5393 Mar 27 j 19:59	24° $\approx$ 34'42
min. Earth dist.	-5399 Jul 10 j 03:22	4° $\mathbb{X}$ 57'55	8.18591 AU	max. Earth dist.	-5393 Mar 28 j 15:41	24° $\approx$ 41'16
direct	-5399 Sep 14 j 19:29	1° $\mathbb{X}$ 34'48		morning rise	-5393 Apr 14 j 23:00	26° $\approx$ 58'28
evening set	-5399 Dec 24 j 13:24	9° $\mathbb{X}$ 25'07			-5393 May 09 j 05:21	0° $\mathbb{X}$
				retrograde	-5393 Jul 30 j 06:21	5° $\mathbb{X}$ 31'11
conjunction	-5398 Jan 10 j 23:01	11° $\mathbb{X}$ 40'04	0°-56'-8	opposition	-5393 Oct 04 j 18:02	2° $\mathbb{X}$ 00'07
minimum elong	-5398 Jan 10 j 22:58	11° $\mathbb{X}$ 40'03	0°56'27	min. Earth dist.	-5393 Oct 04 j 02:43	2° $\mathbb{X}$ 03'20
max. Earth dist.	-5398 Jan 10 j 19:20	11° $\mathbb{X}$ 38'53	10.11875 AU		-5393 Oct 30 j 04:11	30° $\mathbb{R}$ $\approx$
morning rise	-5398 Jan 28 j 14:14	13° $\mathbb{X}$ 56'50		direct	-5393 Dec 09 j 23:19	28° $\approx$ 29'57
retrograde	-5398 May 16 j 09:46	22° $\mathbb{X}$ 19'48			-5392 Jan 19 j 10:28	0° $\mathbb{X}$
opposition	-5398 Jul 24 j 05:17	18° $\mathbb{X}$ 49'11	-1°-30'-11	evening set	-5392 Mar 24 j 11:26	6° $\mathbb{X}$ 56'12
min. Earth dist.	-5398 Jul 24 j 05:48	18° $\mathbb{X}$ 49'05	8.05572 AU			
direct	-5398 Sep 28 j 13:52	15° $\mathbb{X}$ 23'53		conjunction	-5392 Apr 11 j 14:26	9° $\mathbb{X}$ 18'47
evening set	-5397 Jan 07 j 23:13	23° $\mathbb{X}$ 25'02		minimum elong	-5392 Apr 11 j 14:29	9° $\mathbb{X}$ 18'48
				max. Earth dist.	-5392 Apr 12 j 11:37	9° $\mathbb{X}$ 25'47
conjunction	-5397 Jan 25 j 13:04	25° $\mathbb{X}$ 43'02	-1°-26'-39	morning rise	-5392 Apr 29 j 17:20	11° $\mathbb{X}$ 41'16
minimum elong	-5397 Jan 25 j 13:00	25° $\mathbb{X}$ 43'01	1°26'58	retrograde	-5392 Aug 12 j 20:56	20° $\mathbb{X}$ 04'01
max. Earth dist.	-5397 Jan 25 j 14:39	25° $\mathbb{X}$ 43'33	9.99917 AU	opposition	-5392 Oct 18 j 05:30	16° $\mathbb{X}$ 34'21
morning rise	-5397 Feb 12 j 08:16	28° $\mathbb{X}$ 02'46		min. Earth dist.	-5392 Oct 17 j 13:51	16° $\mathbb{X}$ 37'37
	-5397 Feb 27 j 20:59	0° $\mathbb{Z}$		direct	-5392 Dec 23 j 22:39	13° $\mathbb{X}$ 04'09
retrograde	-5397 May 31 j 11:39	6° $\mathbb{Z}$ 35'08		evening set	-5391 Apr 08 j 22:35	21° $\mathbb{X}$ 25'47
opposition	-5397 Aug 07 j 17:40	3° $\mathbb{Z}$ 03'26	-2°-5'-57			
min. Earth dist.	-5397 Aug 07 j 14:17	3° $\mathbb{Z}$ 04'08	7.95015 AU	conjunction	-5391 Apr 27 j 01:48	23° $\mathbb{X}$ 46'44
	-5397 Sep 22 j 12:22	30° $\mathbb{R}$ $\mathbb{X}$		minimum elong	-5391 Apr 27 j 01:52	23° $\mathbb{X}$ 46'46
direct	-5397 Oct 12 j 17:18	29° $\mathbb{X}$ 36'46		max. Earth dist.	-5391 Apr 27 j 23:00	23° $\mathbb{X}$ 53'39
	-5397 Nov 01 j 17:48	0° $\mathbb{Z}$		morning rise	-5391 May 15 j 03:39	26° $\mathbb{X}$ 07'09
evening set	-5396 Jan 22 j 21:59	7° $\mathbb{Z}$ 47'57			-5391 Jun 16 j 16:54	0° $\mathbb{Y}$
				retrograde	-5391 Aug 27 j 01:05	4° $\mathbb{Y}$ 17'23
conjunction	-5396 Feb 09 j 15:41	10° $\mathbb{Z}$ 08'28	-1°-52'-29	opposition	-5391 Nov 01 j 09:54	0° $\mathbb{Y}$ 49'25
minimum elong	-5396 Feb 09 j 15:38	10° $\mathbb{Z}$ 08'27	1°52'49	min. Earth dist.	-5391 Oct 31 j 18:34	0° $\mathbb{Y}$ 52'35
max. Earth dist.	-5396 Feb 09 j 22:42	10° $\mathbb{Z}$ 10'48	9.90775 AU		-5391 Nov 11 j 11:10	30° $\mathbb{R}$ $\mathbb{X}$
morning rise	-5396 Feb 27 j 14:03	12° $\mathbb{Z}$ 30'32		direct	-5390 Jan 07 j 18:01	27° $\mathbb{X}$ 19'31
retrograde	-5396 Jun 14 j 18:04	21° $\mathbb{Z}$ 09'11			-5390 Mar 04 j 20:47	0° $\mathbb{Y}$
opposition	-5396 Aug 21 j 10:37	17° $\mathbb{Z}$ 36'52	-2°-34'-30	evening set	-5390 Apr 24 j 00:40	5° $\mathbb{Y}$ 33'50
min. Earth dist.	-5396 Aug 21 j 03:12	17° $\mathbb{Z}$ 38'25	7.87621 AU			
direct	-5396 Oct 26 j 04:47	14° $\mathbb{Z}$ 08'58		conjunction	-5390 May 12 j 03:03	7° $\mathbb{Y}$ 52'27
evening set	-5395 Feb 06 j 07:13	22° $\mathbb{Z}$ 28'27		minimum elong	-5390 May 12 j 03:07	7° $\mathbb{Y}$ 52'29
				max. Earth dist.	-5390 May 12 j 22:55	7° $\mathbb{Y}$ 58'50
conjunction	-5395 Feb 24 j 04:14	24° $\mathbb{Z}$ 50'47	-2°-11'-31	morning rise	-5390 May 30 j 02:51	10° $\mathbb{Y}$ 10'08
minimum elong	-5395 Feb 24 j 04:11	24° $\mathbb{Z}$ 50'46	2°11'50	retrograde	-5390 Sep 09 j 17:16	18° $\mathbb{Y}$ 06'28
max. Earth dist.	-5395 Feb 24 j 16:21	24° $\mathbb{Z}$ 54'50	9.85101 AU	opposition	-5390 Nov 15 j 05:50	14° $\mathbb{Y}$ 40'25
morning rise	-5395 Mar 14 j 04:56	27° $\mathbb{Z}$ 14'20		min. Earth dist.	-5390 Nov 14 j 15:26	14° $\mathbb{Y}$ 43'21
	-5395 Apr 05 j 03:15	0° $\approx$		direct	-5389 Jan 22 j 07:47	11° $\mathbb{Y}$ 11'09
retrograde	-5395 Jun 30 j 02:02	5° $\approx$ 55'22		evening set	-5389 May 08 j 15:23	19° $\mathbb{Y}$ 16'15
opposition	-5395 Sep 05 j 06:09	2° $\approx$ 22'56	-2°-53'-16			
min. Earth dist.	-5395 Sep 04 j 19:05	2° $\approx$ 25'16	7.83924 AU	conjunction	-5389 May 26 j 15:49	21° $\mathbb{Y}$ 31'59
	-5395 Oct 06 j 14:29	30° $\mathbb{R}$ $\mathbb{Z}$		minimum elong	-5389 May 26 j 15:52	21° $\mathbb{Y}$ 32'00
direct	-5395 Nov 09 j 23:30	28° $\mathbb{Z}$ 54'00		max. Earth dist.	-5389 May 27 j 09:20	21° $\mathbb{Y}$ 37'31
	-5395 Dec 14 j 00:26	0° $\approx$		morning rise	-5389 Jun 13 j 12:32	23° $\mathbb{Y}$ 46'28
evening set	-5394 Feb 21 j 23:14	7° $\approx$ 19'06			-5389 Aug 13 j 06:12	0° $\mathbb{Z}$
				retrograde	-5389 Sep 22 j 21:27	1° $\mathbb{Z}$ 28'42
conjunction	-5394 Mar 11 j 22:58	9° $\approx$ 42'24	-2°-22'-3		-5389 Nov 03 j 06:47	30° $\mathbb{R}$ $\mathbb{Y}$

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 2

Attention, astronomical year style is used: The year -5389 in astronomical counting style is the year 5390 BCE in historical counting style.

opposition	-5389 Nov 28 j 17:00	28° $\Upsilon$ 04'37	-1°-3'-47	morning rise	-5383 Aug 25 j 09:59	6° $\Theta$ 33'34	
min. Earth dist.	-5389 Nov 28 j 03:50	28° $\Upsilon$ 07'16	8.36040 AU	retrograde	-5383 Dec 01 j 17:48	13° $\Theta$ 22'03	
direct	-5388 Feb 05 j 13:03	24° $\Upsilon$ 36'17		opposition	-5382 Feb 09 j 00:20	10° $\Theta$ 06'20	2°18'49
	-5388 Apr 30 j 05:03	0° $\Xi$		min. Earth dist.	-5382 Feb 09 j 05:46	10° $\Theta$ 05'20	9.13661 AU
evening set	-5388 May 21 j 17:23	2° $\Xi$ 31'04		direct	-5382 Apr 21 j 19:50	6° $\Theta$ 45'05	
				evening set	-5382 Aug 03 j 07:06	13° $\Theta$ 49'36	
conjunction	-5388 Jun 08 j 14:44	4° $\Xi$ 43'33	0°-35'-31	conjunction	-5382 Aug 20 j 00:22	15° $\Theta$ 45'11	2°02'22
minimum elong	-5388 Jun 08 j 14:46	4° $\Xi$ 43'34	0°35'22	minimum elong	-5382 Aug 20 j 00:19	15° $\Theta$ 45'11	2°02'41
max. Earth dist.	-5388 Jun 09 j 05:36	4° $\Xi$ 48'10	10.43941 AU	max. Earth dist.	-5382 Aug 19 j 15:53	15° $\Theta$ 42'44	11.16828 AU
morning rise	-5388 Jun 26 j 07:26	6° $\Xi$ 54'35		morning rise	-5382 Sep 05 j 13:30	17° $\Theta$ 39'40	
retrograde	-5388 Oct 04 j 16:06	14° $\Xi$ 23'30		retrograde	-5382 Dec 13 j 00:56	24° $\Theta$ 25'47	
opposition	-5388 Dec 10 j 19:21	11° $\Xi$ 01'18	0°-24'-34	opposition	-5381 Feb 20 j 17:48	21° $\Theta$ 10'25	2°37'37
min. Earth dist.	-5388 Dec 10 j 08:30	11° $\Xi$ 03'27	8.51680 AU	min. Earth dist.	-5381 Feb 21 j 02:51	21° $\Theta$ 08'45	9.19600 AU
direct	-5387 Feb 18 j 08:00	7° $\Xi$ 34'05		direct	-5381 May 03 j 15:01	17° $\Theta$ 50'02	
	-5387 Jun 01 j 17:05	15° $\Xi$		evening set	-5381 Aug 14 j 13:16	24° $\Theta$ 50'15	
evening set	-5387 Jun 04 j 06:33	15° $\Xi$ 18'20					
conjunction	-5387 Jun 21 j 23:54	17° $\Xi$ 27'27	0°-3'-45	conjunction	-5381 Aug 31 j 02:42	26° $\Theta$ 44'24	2°15'29
minimum elong	-5387 Jun 21 j 23:55	17° $\Xi$ 27'27	0°03'33	minimum elong	-5381 Aug 31 j 02:40	26° $\Theta$ 44'23	2°15'47
behind sun begin	-5387 Jun 21 j 16:46	17° $\Xi$ 25'18		max. Earth dist.	-5381 Aug 30 j 14:24	26° $\Theta$ 40'50	11.21351 AU
behind sun end	-5387 Jun 22 j 07:03	17° $\Xi$ 29'37		morning rise	-5381 Sep 16 j 13:00	28° $\Theta$ 37'42	
max. Earth dist.	-5387 Jun 22 j 11:22	17° $\Xi$ 30'57	10.59572 AU		-5381 Sep 28 j 22:04	0° $\Omega$	
morning rise	-5387 Jul 09 j 11:58	19° $\Xi$ 34'59		retrograde	-5381 Dec 24 j 06:53	5° $\Omega$ 23'19	
asc. node	-5387 Aug 05 j 07:04	22° $\Xi$ 36'48		opposition	-5380 Mar 03 j 10:07	2° $\Omega$ 07'55	2°50'31
retrograde	-5387 Oct 17 j 01:49	26° $\Xi$ 51'57		min. Earth dist.	-5380 Mar 03 j 21:38	2° $\Omega$ 05'49	9.22775 AU
opposition	-5387 Dec 23 j 13:20	23° $\Xi$ 31'34	0°14'23		-5380 Apr 04 j 02:55	30° $\Upsilon$ $\Theta$	
min. Earth dist.	-5387 Dec 23 j 06:03	23° $\Xi$ 32'59	8.67065 AU	direct	-5380 May 14 j 07:49	28° $\Theta$ 48'14	
direct	-5386 Mar 03 j 16:01	20° $\Xi$ 05'33			-5380 Jun 22 j 16:50	0° $\Omega$	
evening set	-5386 Jun 17 j 07:26	27° $\Xi$ 39'48		evening set	-5380 Aug 24 j 15:13	5° $\Omega$ 45'28	
				max. Earth dist.	-5380 Sep 09 j 11:29	7° $\Omega$ 34'36	11.23070 AU
conjunction	-5386 Jul 04 j 20:03	29° $\Xi$ 45'37	0°27'22	conjunction	-5380 Sep 10 j 01:53	7° $\Omega$ 38'46	2°23'34
minimum elong	-5386 Jul 04 j 20:02	29° $\Xi$ 45'37	0°27'38	minimum elong	-5380 Sep 10 j 01:52	7° $\Omega$ 38'46	2°23'50
max. Earth dist.	-5386 Jul 05 j 02:49	29° $\Xi$ 47'39	10.74509 AU	morning rise	-5380 Sep 26 j 10:12	9° $\Omega$ 31'26	
	-5386 Jul 06 j 19:46	0° $\Pi$			-5380 Nov 24 j 05:29	15° $\Omega$	
morning rise	-5386 Jul 22 j 03:13	1° $\Pi$ 49'50		retrograde	-5379 Jan 03 j 16:03	16° $\Omega$ 18'21	
retrograde	-5386 Oct 29 j 01:01	8° $\Pi$ 56'42			-5379 Feb 14 j 07:03	15° $\Upsilon$ $\Omega$	
opposition	-5385 Jan 05 j 00:08	5° $\Pi$ 37'59	0°51'23	opposition	-5379 Mar 15 j 02:20	13° $\Omega$ 02'36	2°57'15
min. Earth dist.	-5385 Jan 04 j 20:50	5° $\Pi$ 38'37	8.81440 AU	min. Earth dist.	-5379 Mar 15 j 15:13	13° $\Omega$ 00'15	9.23085 AU
direct	-5385 Mar 16 j 17:20	2° $\Pi$ 13'13		direct	-5379 May 25 j 22:15	9° $\Omega$ 43'27	
evening set	-5385 Jun 29 j 21:05	9° $\Pi$ 38'23			-5379 Aug 20 j 15:33	15° $\Omega$	
conjunction	-5385 Jul 17 j 04:32	11° $\Pi$ 41'05	0°56'23	evening set	-5379 Sep 04 j 15:01	16° $\Omega$ 39'06	
minimum elong	-5385 Jul 17 j 04:29	11° $\Pi$ 41'04	0°56'40	conjunction	-5379 Sep 20 j 23:56	18° $\Omega$ 32'09	2°26'27
max. Earth dist.	-5385 Jul 17 j 06:09	11° $\Pi$ 41'34	10.88120 AU	minimum elong	-5379 Sep 20 j 23:56	18° $\Omega$ 32'09	2°26'40
morning rise	-5385 Aug 03 j 06:46	13° $\Pi$ 42'15		max. Earth dist.	-5379 Sep 20 j 08:28	18° $\Omega$ 27'39	11.21927 AU
retrograde	-5385 Nov 09 j 18:48	20° $\Pi$ 41'03		morning rise	-5379 Oct 07 j 07:08	20° $\Omega$ 24'47	
opposition	-5384 Jan 17 j 04:46	17° $\Pi$ 23'40	1°25'05	retrograde	-5378 Jan 15 j 03:11	27° $\Omega$ 14'42	
min. Earth dist.	-5384 Jan 17 j 04:36	17° $\Pi$ 23'42	8.94269 AU	opposition	-5378 Mar 26 j 19:46	23° $\Omega$ 58'19	2°57'39
direct	-5384 Mar 28 j 09:48	14° $\Pi$ 00'11		min. Earth dist.	-5378 Mar 27 j 10:01	23° $\Omega$ 55'43	9.20519 AU
evening set	-5384 Jul 11 j 00:37	21° $\Pi$ 17'17		direct	-5378 Jun 06 j 09:30	20° $\Omega$ 39'32	
conjunction	-5384 Jul 28 j 02:59	23° $\Pi$ 17'11	1°22'21	evening set	-5378 Sep 15 j 14:25	27° $\Omega$ 35'03	
minimum elong	-5384 Jul 28 j 02:56	23° $\Pi$ 17'10	1°22'39	conjunction	-5378 Oct 01 j 22:27	29° $\Omega$ 28'24	2°24'01
max. Earth dist.	-5384 Jul 28 j 00:36	23° $\Pi$ 16'29	10.99956 AU	minimum elong	-5378 Oct 01 j 22:28	29° $\Omega$ 28'25	2°24'11
morning rise	-5384 Aug 14 j 00:26	25° $\Pi$ 15'39		max. Earth dist.	-5378 Oct 01 j 05:07	29° $\Omega$ 23'21	11.17969 AU
	-5384 Sep 30 j 02:44	0° $\Theta$			-5378 Oct 06 j 10:58	0° $\Upsilon$ $\eta$	
retrograde	-5384 Nov 20 j 07:25	2° $\Theta$ 08'20		morning rise	-5378 Oct 18 j 05:46	1° $\Upsilon$ $\eta$ 21'38	
	-5383 Jan 12 j 16:43	30° $\Upsilon$ $\Pi$		retrograde	-5377 Jan 26 j 19:30	8° $\Upsilon$ $\eta$ 16'16	
opposition	-5383 Jan 28 j 04:23	28° $\Pi$ 51'57	1°54'28	opposition	-5377 Apr 07 j 16:06	4° $\Upsilon$ $\eta$ 59'01	2°51'34
min. Earth dist.	-5383 Jan 28 j 06:48	28° $\Pi$ 51'30	9.05129 AU	min. Earth dist.	-5377 Apr 08 j 07:56	4° $\Upsilon$ $\eta$ 56'07	9.15169 AU
direct	-5383 Apr 09 j 17:38	25° $\Pi$ 29'39		direct	-5377 Jun 17 j 21:28	1° $\Upsilon$ $\eta$ 40'24	
	-5383 Jun 28 j 06:25	0° $\Theta$		evening set	-5377 Sep 26 j 15:01	8° $\Upsilon$ $\eta$ 37'11	
evening set	-5383 Jul 22 j 19:21	2° $\Theta$ 39'49					
conjunction	-5383 Aug 08 j 17:01	4° $\Theta$ 37'20	1°44'32	conjunction	-5377 Oct 12 j 23:12	10° $\Upsilon$ $\eta$ 31'28	2°16'12
minimum elong	-5383 Aug 08 j 16:58	4° $\Theta$ 37'19	1°44'50	minimum elong	-5377 Oct 12 j 23:14	10° $\Upsilon$ $\eta$ 31'28	2°16'19
max. Earth dist.	-5383 Aug 08 j 11:47	4° $\Theta$ 35'49	11.09630 AU	max. Earth dist.	-5377 Oct 12 j 04:29	10° $\Upsilon$ $\eta$ 25'58	11.11324 AU

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 3

Attention, astronomical year style is used: The year -5377 in astronomical counting style is the year 5378 BCE in historical counting style.

morning rise	-5377 Oct 29 j 07:51	12° $\mathring{\text{M}}$ 25'55		behind sun begin	-5371 Dec 22 j 07:22	22° $\mathring{\text{M}}$ 36'39	
retrograde	-5376 Feb 07 j 15:16	19° $\mathring{\text{M}}$ 26'56		behind sun end	-5371 Dec 22 j 19:23	22° $\mathring{\text{M}}$ 40'26	
opposition	-5376 Apr 18 j 16:14	16° $\mathring{\text{M}}$ 08'31	2°39'00	max. Earth dist.	-5371 Dec 22 j 05:41	22° $\mathring{\text{M}}$ 36'06	10.33203 AU
min. Earth dist.	-5376 Apr 19 j 08:47	16° $\mathring{\text{M}}$ 05'29	9.07198 AU	morning rise	-5370 Jan 08 j 21:46	24° $\mathring{\text{M}}$ 50'16	
direct	-5376 Jun 28 j 10:49	12° $\mathring{\text{M}}$ 49'53			-5370 Feb 24 j 10:57	0° $\mathring{\text{A}}$	
evening set	-5376 Oct 06 j 18:51	19° $\mathring{\text{M}}$ 49'27		retrograde	-5370 Apr 25 j 19:45	2° $\mathring{\text{A}}$ 56'21	
max. Earth dist.	-5376 Oct 22 j 10:07	21° $\mathring{\text{M}}$ 39'48	11.02187 AU		-5370 Jun 27 j 17:40	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
				opposition	-5370 Jul 04 j 10:17	29° $\mathring{\text{M}}$ 28'19	0°-32'-28
conjunction	-5376 Oct 23 j 04:26	21° $\mathring{\text{M}}$ 45'14	2°03'04	min. Earth dist.	-5370 Jul 04 j 14:53	29° $\mathring{\text{M}}$ 27'25	8.25856 AU
minimum elong	-5376 Oct 23 j 04:29	21° $\mathring{\text{M}}$ 45'14	2°03'09	direct	-5370 Sep 09 j 12:52	26° $\mathring{\text{M}}$ 05'32	
morning rise	-5376 Nov 08 j 15:17	23° $\mathring{\text{M}}$ 41'28			-5370 Nov 16 j 06:07	0° $\mathring{\text{A}}$	
	-5375 Jan 17 j 11:47	0° $\mathring{\text{A}}$		evening set	-5370 Dec 19 j 00:19	3° $\mathring{\text{A}}$ 50'50	
retrograde	-5375 Feb 18 j 20:30	0° $\mathring{\text{A}}$ 50'28					
	-5375 Mar 23 j 19:54	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		conjunction	-5369 Jan 05 j 08:06	6° $\mathring{\text{A}}$ 04'15	0°-42'-16
opposition	-5375 Apr 30 j 21:07	27° $\mathring{\text{M}}$ 30'41	2°20'01	minimum elong	-5369 Jan 05 j 08:04	6° $\mathring{\text{A}}$ 04'15	0°42'34
min. Earth dist.	-5375 May 01 j 12:53	27° $\mathring{\text{M}}$ 27'46	8.96854 AU	max. Earth dist.	-5369 Jan 05 j 04:49	6° $\mathring{\text{A}}$ 03'12	10.18998 AU
direct	-5375 Jul 10 j 04:36	24° $\mathring{\text{M}}$ 11'50		morning rise	-5369 Jan 22 j 21:08	8° $\mathring{\text{A}}$ 19'26	
	-5375 Oct 07 j 04:58	0° $\mathring{\text{A}}$		retrograde	-5369 May 10 j 11:44	16° $\mathring{\text{A}}$ 37'19	
evening set	-5375 Oct 18 j 03:52	1° $\mathring{\text{A}}$ 15'39		opposition	-5369 Jul 18 j 12:57	13° $\mathring{\text{A}}$ 07'50	-1°-13'-25
				min. Earth dist.	-5369 Jul 18 j 13:33	13° $\mathring{\text{A}}$ 07'42	8.12411 AU
conjunction	-5375 Nov 03 j 15:47	3° $\mathring{\text{A}}$ 13'30	1°44'48	direct	-5369 Sep 23 j 01:56	9° $\mathring{\text{A}}$ 43'46	
minimum elong	-5375 Nov 03 j 15:50	3° $\mathring{\text{A}}$ 13'31	1°44'49	evening set	-5368 Jan 02 j 04:27	17° $\mathring{\text{A}}$ 39'46	
max. Earth dist.	-5375 Nov 02 j 22:31	3° $\mathring{\text{A}}$ 08'19	10.90845 AU				
morning rise	-5375 Nov 20 j 05:43	5° $\mathring{\text{A}}$ 12'05		conjunction	-5368 Jan 19 j 16:28	19° $\mathring{\text{A}}$ 56'19	-1°-14'-3
retrograde	-5374 Mar 03 j 10:54	12° $\mathring{\text{A}}$ 30'32		minimum elong	-5368 Jan 19 j 16:24	19° $\mathring{\text{A}}$ 56'18	1°14'22
opposition	-5374 May 13 j 08:21	9° $\mathring{\text{A}}$ 09'13	1°54'51	max. Earth dist.	-5368 Jan 19 j 17:15	19° $\mathring{\text{A}}$ 56'35	10.06393 AU
min. Earth dist.	-5374 May 13 j 22:45	9° $\mathring{\text{A}}$ 06'32	8.84489 AU	morning rise	-5368 Feb 06 j 09:45	22° $\mathring{\text{A}}$ 14'38	
direct	-5374 Jul 22 j 00:42	5° $\mathring{\text{A}}$ 49'59			-5368 Apr 26 j 02:01	0° $\mathring{\text{B}}$	
evening set	-5374 Oct 29 j 19:59	12° $\mathring{\text{A}}$ 59'30		retrograde	-5368 May 24 j 11:52	0° $\mathring{\text{B}}$ 42'40	
					-5368 Jun 21 j 23:59	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
conjunction	-5374 Nov 15 j 10:52	14° $\mathring{\text{A}}$ 59'53	1°21'43	opposition	-5368 Jul 31 j 22:35	27° $\mathring{\text{A}}$ 12'00	-1°-51'-19
minimum elong	-5374 Nov 15 j 10:54	14° $\mathring{\text{A}}$ 59'54	1°21'41	min. Earth dist.	-5368 Jul 31 j 19:41	27° $\mathring{\text{A}}$ 12'36	8.00945 AU
max. Earth dist.	-5374 Nov 14 j 18:24	14° $\mathring{\text{A}}$ 54'53	10.77710 AU	direct	-5368 Oct 06 j 00:20	23° $\mathring{\text{A}}$ 46'35	
morning rise	-5374 Dec 02 j 04:50	17° $\mathring{\text{A}}$ 01'19			-5367 Jan 01 j 00:17	0° $\mathring{\text{B}}$	
retrograde	-5373 Mar 16 j 09:18	24° $\mathring{\text{A}}$ 30'34		evening set	-5367 Jan 15 j 21:48	1° $\mathring{\text{B}}$ 52'55	
opposition	-5373 May 26 j 02:49	21° $\mathring{\text{A}}$ 07'36	1°24'00				
min. Earth dist.	-5373 May 26 j 15:51	21° $\mathring{\text{A}}$ 05'08	8.70579 AU	conjunction	-5367 Feb 02 j 13:38	4° $\mathring{\text{B}}$ 12'10	-1°-42'-8
direct	-5373 Aug 03 j 03:13	17° $\mathring{\text{A}}$ 47'44		minimum elong	-5367 Feb 02 j 13:34	4° $\mathring{\text{B}}$ 12'09	1°42'27
evening set	-5373 Nov 10 j 21:18	25° $\mathring{\text{A}}$ 04'26		max. Earth dist.	-5367 Feb 02 j 18:11	4° $\mathring{\text{B}}$ 13'41	9.96081 AU
				morning rise	-5367 Feb 20 j 10:30	6° $\mathring{\text{B}}$ 33'04	
conjunction	-5373 Nov 27 j 15:51	27° $\mathring{\text{A}}$ 07'47	0°54'26	retrograde	-5367 Jun 08 j 17:12	15° $\mathring{\text{B}}$ 08'47	
minimum elong	-5373 Nov 27 j 15:53	27° $\mathring{\text{A}}$ 07'48	0°54'19	opposition	-5367 Aug 15 j 13:39	11° $\mathring{\text{B}}$ 37'20	-2°-23'-13
max. Earth dist.	-5373 Nov 27 j 00:47	27° $\mathring{\text{A}}$ 03'08	10.63301 AU	min. Earth dist.	-5367 Aug 15 j 07:56	11° $\mathring{\text{B}}$ 38'30	7.92101 AU
morning rise	-5373 Dec 14 j 14:31	29° $\mathring{\text{A}}$ 12'27		direct	-5367 Oct 20 j 08:04	8° $\mathring{\text{B}}$ 10'35	
	-5373 Dec 21 j 05:24	0° $\mathring{\text{M}}$		evening set	-5366 Jan 31 j 02:35	16° $\mathring{\text{B}}$ 26'09	
retrograde	-5372 Mar 28 j 18:22	6° $\mathring{\text{M}}$ 53'31					
opposition	-5372 Jun 07 j 05:00	3° $\mathring{\text{M}}$ 28'50	0°48'15	conjunction	-5366 Feb 17 j 21:53	18° $\mathring{\text{B}}$ 47'32	-2°-4'-17
min. Earth dist.	-5372 Jun 07 j 16:23	3° $\mathring{\text{M}}$ 26'39	8.55710 AU	minimum elong	-5366 Feb 17 j 21:50	18° $\mathring{\text{B}}$ 47'31	2°04'36
direct	-5372 Aug 14 j 13:38	0° $\mathring{\text{M}}$ 08'09		max. Earth dist.	-5366 Feb 18 j 06:26	18° $\mathring{\text{B}}$ 50'23	9.88708 AU
evening set	-5372 Nov 22 j 09:29	7° $\mathring{\text{M}}$ 33'23		morning rise	-5366 Mar 07 j 21:36	21° $\mathring{\text{B}}$ 10'21	
				retrograde	-5366 Jun 24 j 01:02	29° $\mathring{\text{B}}$ 50'22	
conjunction	-5372 Dec 09 j 08:18	9° $\mathring{\text{M}}$ 40'00	0°23'47	opposition	-5366 Aug 30 j 08:19	26° $\mathring{\text{B}}$ 18'35	-2°-46'-25
minimum elong	-5372 Dec 09 j 08:19	9° $\mathring{\text{M}}$ 40'00	0°23'36	min. Earth dist.	-5366 Aug 29 j 23:52	26° $\mathring{\text{B}}$ 20'21	7.86511 AU
max. Earth dist.	-5372 Dec 08 j 20:23	9° $\mathring{\text{M}}$ 36'16	10.48232 AU	direct	-5366 Nov 04 j 00:38	22° $\mathring{\text{B}}$ 50'39	
morning rise	-5372 Dec 26 j 11:52	11° $\mathring{\text{M}}$ 48'10			-5365 Feb 06 j 04:54	0° $\mathring{\approx}$	
	-5371 Jan 23 j 00:50	15° $\mathring{\text{M}}$		evening set	-5365 Feb 15 j 16:04	1° $\mathring{\approx}$ 13'18	
retrograde	-5371 Apr 11 j 14:02	19° $\mathring{\text{M}}$ 41'41					
opposition	-5371 Jun 20 j 15:28	16° $\mathring{\text{M}}$ 15'18	0°08'50	conjunction	-5365 Mar 05 j 14:25	3° $\mathring{\approx}$ 36'06	-2°-18'-35
min. Earth dist.	-5371 Jun 20 j 23:57	16° $\mathring{\text{M}}$ 13'39	8.40552 AU	minimum elong	-5365 Mar 05 j 14:23	3° $\mathring{\approx}$ 36'06	2°18'53
	-5371 Jul 07 j 03:01	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$		max. Earth dist.	-5365 Mar 06 j 03:02	3° $\mathring{\approx}$ 40'19	9.84898 AU
direct	-5371 Aug 27 j 08:16	12° $\mathring{\text{M}}$ 53'38		morning rise	-5365 Mar 23 j 16:10	5° $\mathring{\approx}$ 59'58	
desc. node	-5371 Sep 10 j 10:48	13° $\mathring{\text{M}}$ 04'32		retrograde	-5365 Jul 09 j 06:54	14° $\mathring{\approx}$ 40'07	
	-5371 Oct 15 j 10:29	15° $\mathring{\text{M}}$		opposition	-5365 Sep 14 j 04:07	11° $\mathring{\approx}$ 08'27	-2°-58'-45
evening set	-5371 Dec 05 j 10:04	20° $\mathring{\text{M}}$ 28'31		min. Earth dist.	-5365 Sep 13 j 17:03	11° $\mathring{\approx}$ 10'47	7.84688 AU
				direct	-5365 Nov 18 j 23:13	7° $\mathring{\approx}$ 39'31	
conjunction	-5371 Dec 22 j 13:23	22° $\mathring{\text{M}}$ 38'33	0°-9'-2		-5364 Feb 22 j 21:18	15° $\mathring{\approx}$	
minimum elong	-5371 Dec 22 j 13:23	22° $\mathring{\text{M}}$ 38'32	0°09'18	evening set	-5364 Mar 02 j 10:23	16° $\mathring{\approx}$ 06'11	

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 4

Attention, astronomical year style is used: The year -5364 in astronomical counting style is the year 5365 BCE in historical counting style.

conjunction	-5364 Mar 20 j 11:10	18° <del>29</del> '32	-2°-23'-47			-5358 Jul 08 j 13:58	15° <del>8</del>	
minimum elong	-5364 Mar 20 j 11:11	18° <del>29</del> '32	2°24'01	retrograde		-5358 Oct 12 j 04:32	21° <del>8</del> 51'43	
max. Earth dist.	-5364 Mar 21 j 03:22	18° <del>34</del> '56	9.85042 AU	opposition		-5358 Dec 18 j 13:33	18° <del>8</del> 30'03	0°-2'-13
morning rise	-5364 Apr 07 j 14:03	20° <del>33</del> '29		min. Earth dist.		-5358 Dec 18 j 05:01	18° <del>8</del> 31'43	8.59267 AU
retrograde	-5364 Jul 23 j 07:42	29° <del>29</del> '19		asc. node		-5357 Jan 09 j 05:24	16° <del>8</del> 52'06	
opposition	-5364 Sep 27 j 22:12	25° <del>58</del> '13	-2°-59'-8	direct		-5357 Feb 26 j 11:30	15° <del>8</del> 02'55	
min. Earth dist.	-5364 Sep 27 j 08:51	26° <del>01</del> '01	7.86848 AU	evening set		-5357 Jun 12 j 04:56	22° <del>8</del> 41'35	
direct	-5364 Dec 03 j 00:00	22° <del>28</del> '33						
	-5363 Mar 10 j 23:40	0° <del>8</del>		conjunction		-5357 Jun 29 j 19:41	24° <del>8</del> 48'54	0°14'12
evening set	-5363 Mar 18 j 04:50	0° <del>8</del> 55'39		minimum elong		-5357 Jun 29 j 19:41	24° <del>8</del> 48'54	0°14'26
				behind sun begin		-5357 Jun 29 j 16:32	24° <del>8</del> 47'57	
conjunction	-5363 Apr 05 j 07:21	3° <del>8</del> 18'39	-2°-19'-29	behind sun end		-5357 Jun 29 j 22:49	24° <del>8</del> 49'50	
minimum elong	-5363 Apr 05 j 07:24	3° <del>8</del> 18'40	2°19'40	max. Earth dist.		-5357 Jun 30 j 04:00	24° <del>8</del> 51'25	10.66988 AU
max. Earth dist.	-5363 Apr 06 j 02:21	3° <del>8</del> 24'57	9.89192 AU	morning rise		-5357 Jul 17 j 05:14	26° <del>8</del> 54'38	
morning rise	-5363 Apr 23 j 10:28	5° <del>8</del> 41'45				-5357 Aug 13 j 20:12	0° <del>II</del>	
retrograde	-5363 Aug 07 j 01:50	14° <del>8</del> 09'13		retrograde		-5357 Oct 24 j 07:23	4° <del>II</del> 05'44	
opposition	-5363 Oct 12 j 12:08	10° <del>8</del> 39'07	-2°-47'-44	opposition		-5357 Dec 31 j 03:08	0° <del>II</del> 45'44	0°35'47
min. Earth dist.	-5363 Oct 11 j 21:00	10° <del>8</del> 42'16	7.92859 AU	min. Earth dist.		-5357 Dec 30 j 20:53	0° <del>II</del> 46'57	8.74292 AU
direct	-5363 Dec 18 j 00:22	7° <del>8</del> 09'02				-5356 Jan 10 j 01:35	30° <del>R</del> <del>8</del>	
evening set	-5362 Apr 02 j 18:56	15° <del>8</del> 32'59		direct		-5356 Mar 10 j 16:25	27° <del>8</del> 19'54	
						-5356 May 08 j 13:15	0° <del>II</del>	
conjunction	-5362 Apr 20 j 22:20	17° <del>8</del> 54'46	-2°-6'-16	evening set		-5356 Jun 23 j 22:49	4° <del>II</del> 48'49	
minimum elong	-5362 Apr 20 j 22:23	17° <del>8</del> 54'47	2°06'22					
max. Earth dist.	-5362 Apr 21 j 18:56	18° <del>8</del> 01'31	9.97045 AU	conjunction		-5356 Jul 11 j 08:43	6° <del>II</del> 52'54	0°44'11
morning rise	-5362 May 09 j 00:46	20° <del>8</del> 16'09		minimum elong		-5356 Jul 11 j 08:41	6° <del>II</del> 52'53	0°44'27
retrograde	-5362 Aug 21 j 10:51	28° <del>8</del> 32'09		max. Earth dist.		-5356 Jul 11 j 13:56	6° <del>II</del> 54'27	10.81499 AU
opposition	-5362 Oct 26 j 19:41	25° <del>8</del> 03'22	-2°-25'-55	morning rise		-5356 Jul 28 j 13:08	8° <del>II</del> 55'23	
min. Earth dist.	-5362 Oct 26 j 04:02	25° <del>8</del> 06'37	8.02279 AU	retrograde		-5356 Nov 04 j 04:36	15° <del>II</del> 57'22	
direct	-5361 Jan 01 j 21:16	21° <del>8</del> 33'15		opposition		-5355 Jan 11 j 09:57	12° <del>II</del> 38'53	1°11'01
evening set	-5361 Apr 18 j 01:20	29° <del>8</del> 51'01		min. Earth dist.		-5355 Jan 11 j 06:46	12° <del>II</del> 39'29	8.88197 AU
	-5361 Apr 19 j 05:39	0° <del>8</del> <del>9</del>		direct		-5355 Mar 23 j 10:49	9° <del>II</del> 14'24	
				evening set		-5355 Jul 06 j 06:10	16° <del>II</del> 34'34	
conjunction	-5361 May 06 j 04:27	2° <del>8</del> 10'47	-1°-45'-30					
minimum elong	-5361 May 06 j 04:31	2° <del>8</del> 10'48	1°45'32	conjunction		-5355 Jul 23 j 10:56	18° <del>II</del> 35'39	1°11'33
max. Earth dist.	-5361 May 07 j 00:57	2° <del>8</del> 17'25	10.08011 AU	minimum elong		-5355 Jul 23 j 10:53	18° <del>II</del> 35'38	1°11'50
morning rise	-5361 May 24 j 05:11	4° <del>8</del> 29'45		max. Earth dist.		-5355 Jul 23 j 12:30	18° <del>II</del> 36'07	10.94578 AU
retrograde	-5361 Sep 04 j 09:12	12° <del>8</del> 32'18		morning rise		-5355 Aug 09 j 10:21	20° <del>II</del> 35'13	
opposition	-5361 Nov 09 j 19:17	9° <del>8</del> 05'10	-1°-55'-52	retrograde		-5355 Nov 15 j 18:32	27° <del>II</del> 30'00	
min. Earth dist.	-5361 Nov 09 j 04:27	9° <del>8</del> 08'13	8.14440 AU	opposition		-5354 Jan 23 j 11:00	24° <del>II</del> 12'49	1°42'19
direct	-5360 Jan 16 j 13:15	5° <del>8</del> 35'20		min. Earth dist.		-5354 Jan 23 j 11:43	24° <del>II</del> 12'41	9.00435 AU
evening set	-5360 May 01 j 21:05	13° <del>8</del> 44'39		direct		-5354 Apr 04 j 20:35	20° <del>II</del> 49'40	
				evening set		-5354 Jul 18 j 04:15	28° <del>II</del> 02'19	
conjunction	-5360 May 19 j 22:40	16° <del>8</del> 01'47	-1°-19'-4					
minimum elong	-5360 May 19 j 22:44	16° <del>8</del> 01'48	1°19'01	conjunction		-5354 Aug 04 j 03:52	0° <del>III</del> 00'45	1°35'24
max. Earth dist.	-5360 May 20 j 17:32	16° <del>8</del> 07'47	10.21330 AU	minimum elong		-5354 Aug 04 j 03:49	0° <del>III</del> 00'44	1°35'42
morning rise	-5360 Jun 06 j 20:44	18° <del>8</del> 17'45		max. Earth dist.		-5354 Aug 04 j 00:46	29° <del>II</del> 59'50	11.05738 AU
retrograde	-5360 Sep 16 j 18:26	26° <del>8</del> 06'12				-5354 Aug 04 j 01:19	0° <del>III</del>	
opposition	-5360 Nov 22 j 10:18	22° <del>8</del> 40'53	-1°-20'-12	morning rise		-5354 Aug 20 j 22:46	1° <del>III</del> 57'51	
min. Earth dist.	-5360 Nov 21 j 21:19	22° <del>8</del> 43'31	8.28552 AU	retrograde		-5354 Nov 27 j 04:01	8° <del>III</del> 47'26	
direct	-5359 Jan 29 j 22:06	19° <del>8</del> 11'42		opposition		-5353 Feb 04 j 07:51	5° <del>III</del> 31'16	2°08'52
evening set	-5359 May 16 j 04:22	27° <del>8</del> 11'07		min. Earth dist.		-5353 Feb 04 j 11:42	5° <del>III</del> 30'33	9.10552 AU
				direct		-5353 Apr 17 j 01:27	2° <del>III</del> 09'23	
conjunction	-5359 Jun 03 j 03:15	29° <del>8</del> 25'08	0°-49'-2	evening set		-5353 Jul 29 j 18:21	9° <del>III</del> 15'45	
minimum elong	-5359 Jun 03 j 03:17	29° <del>8</del> 25'09	0°48'55					
max. Earth dist.	-5359 Jun 03 j 19:06	29° <del>8</del> 30'06	10.36157 AU	conjunction		-5353 Aug 15 j 13:19	11° <del>III</del> 12'00	1°55'09
	-5359 Jun 07 j 18:36	0° <del>III</del>		minimum elong		-5353 Aug 15 j 13:17	11° <del>III</del> 11'59	1°55'27
morning rise	-5359 Jun 20 j 21:50	1° <del>III</del> 37'47		max. Earth dist.		-5353 Aug 15 j 06:39	11° <del>III</del> 10'04	11.14591 AU
retrograde	-5359 Sep 29 j 16:29	9° <del>III</del> 12'31		morning rise		-5353 Sep 01 j 04:10	13° <del>III</del> 07'04	
opposition	-5359 Dec 05 j 16:19	5° <del>III</del> 49'03	0°-41'-32	retrograde		-5353 Dec 08 j 11:51	19° <del>III</del> 53'27	
min. Earth dist.	-5359 Dec 05 j 05:38	5° <del>III</del> 51'11	8.43770 AU	opposition		-5352 Feb 16 j 01:42	16° <del>III</del> 37'57	2°30'04
direct	-5358 Feb 12 j 21:42	2° <del>III</del> 20'46		min. Earth dist.		-5352 Feb 16 j 07:45	16° <del>III</del> 36'50	9.18195 AU
evening set	-5358 May 29 j 22:59	10° <del>III</del> 09'45		direct		-5352 Apr 27 j 23:22	13° <del>III</del> 17'16	
				evening set		-5352 Aug 09 j 02:12	20° <del>III</del> 18'39	
conjunction	-5358 Jun 16 j 18:09	12° <del>III</del> 20'27	0°-17'-24					
minimum elong	-5358 Jun 16 j 18:10	12° <del>III</del> 20'27	0°17'13	conjunction		-5352 Aug 25 j 17:17	22° <del>III</del> 13'13	2°10'19
max. Earth dist.	-5358 Jun 17 j 05:59	12° <del>III</del> 24'05	10.51641 AU	minimum elong		-5352 Aug 25 j 17:15	22° <del>III</del> 13'12	2°10'37
morning rise	-5358 Jul 04 j 08:31	14° <del>III</del> 29'37		max. Earth dist.		-5352 Aug 25 j 08:25	22° <del>III</del> 10'39	11.20841 AU

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), AstroDienst AG 7-Dez-2017 14:33, page 5

Attention, astronomical year style is used: The year -5352 in astronomical counting style is the year 5353 BCE in historical counting style.

morning rise	-5352 Sep 11 j 04:40	24° <del>5</del> 06'49				-5346 Nov 12 j 18:27	0° <del>5</del>	
	-5352 Nov 16 j 06:00	0° <del>5</del>		morning rise	-5346 Nov 15 j 11:29	0° <del>5</del> 19'02		
retrograde	-5352 Dec 18 j 19:15	0° <del>5</del> 51'50		retrograde	-5345 Feb 26 j 05:26	7° <del>5</del> 32'25		
	-5351 Jan 21 j 00:40	30° <del>5</del> <del>5</del>		opposition	-5345 May 08 j 04:37	4° <del>5</del> 12'22	2°06'36	
opposition	-5351 Feb 26 j 17:43	27° <del>5</del> 36'41	2°45'31	min. Earth dist.	-5345 May 08 j 21:40	4° <del>5</del> 09'12	8.91971 AU	
min. Earth dist.	-5351 Feb 27 j 02:22	27° <del>5</del> 35'06	9.23113 AU	direct	-5345 Jul 17 j 03:04	0° <del>5</del> 53'46		
direct	-5351 May 09 j 16:23	24° <del>5</del> 17'00		evening set	-5345 Oct 25 j 00:53	8° <del>5</del> 00'01		
	-5351 Aug 08 j 23:29	0° <del>5</del>						
evening set	-5351 Aug 20 j 05:30	1° <del>5</del> 14'46		conjunction	-5345 Nov 10 j 14:13	9° <del>5</del> 59'02	1°32'28	
				minimum elong	-5345 Nov 10 j 14:16	9° <del>5</del> 59'03	1°32'26	
conjunction	-5351 Sep 05 j 17:21	3° <del>5</del> 08'13	2°20'35	max. Earth dist.	-5345 Nov 09 j 19:33	9° <del>5</del> 53'24	10.85263 AU	
minimum elong	-5351 Sep 05 j 17:20	3° <del>5</del> 08'12	2°20'53	morning rise	-5345 Nov 27 j 06:17	11° <del>5</del> 58'59		
max. Earth dist.	-5351 Sep 05 j 05:36	3° <del>5</del> 04'49	11.24289 AU	retrograde	-5344 Mar 09 j 22:35	19° <del>5</del> 22'44		
morning rise	-5351 Sep 22 j 02:15	5° <del>5</del> 00'54		opposition	-5344 May 19 j 19:23	16° <del>5</del> 00'53	1°38'17	
retrograde	-5351 Dec 30 j 03:06	11° <del>5</del> 04'20		min. Earth dist.	-5344 May 20 j 10:55	15° <del>5</del> 57'57	8.78162 AU	
opposition	-5350 Mar 10 j 09:27	8° <del>5</del> 31'12	2°54'55	direct	-5344 Jul 28 j 04:03	12° <del>5</del> 41'34		
min. Earth dist.	-5350 Mar 10 j 21:08	8° <del>5</del> 29'05	9.25145 AU	evening set	-5344 Nov 04 j 21:32	19° <del>5</del> 54'28		
direct	-5350 May 21 j 05:27	5° <del>5</del> 12'19						
evening set	-5350 Aug 31 j 05:53	12° <del>5</del> 07'51		conjunction	-5344 Nov 21 j 14:27	21° <del>5</del> 56'21	1°07'01	
				minimum elong	-5344 Nov 21 j 14:29	21° <del>5</del> 56'22	1°06'56	
conjunction	-5350 Sep 16 j 15:17	14° <del>5</del> 00'44	2°25'45	max. Earth dist.	-5344 Nov 20 j 21:55	21° <del>5</del> 51'17	10.70785 AU	
minimum elong	-5350 Sep 16 j 15:16	14° <del>5</del> 00'44	2°25'59	morning rise	-5344 Dec 08 j 10:46	23° <del>5</del> 59'23		
max. Earth dist.	-5350 Sep 16 j 00:20	13° <del>5</del> 05'25	11.24822 AU		-5343 Feb 06 j 20:47	0° <del>5</del>		
	-5350 Sep 25 j 04:45	15° <del>5</del>		retrograde	-5343 Mar 23 j 03:54	1° <del>5</del> 34'40		
morning rise	-5350 Oct 02 j 22:49	15° <del>5</del> 03'07			-5343 May 07 j 12:24	30° <del>5</del> <del>5</del>		
retrograde	-5349 Jan 10 j 11:06	22° <del>5</del> 04'44		opposition	-5343 Jun 01 j 17:29	28° <del>5</del> 10'54	1°04'42	
opposition	-5349 Mar 22 j 01:58	19° <del>5</del> 025'15	2°58'03	min. Earth dist.	-5343 Jun 02 j 06:35	28° <del>5</del> 08'24	8.63049 AU	
min. Earth dist.	-5349 Mar 22 j 16:00	19° <del>5</del> 022'42	9.24214 AU	direct	-5343 Aug 09 j 10:41	24° <del>5</del> 50'40		
direct	-5349 Jun 01 j 17:56	16° <del>5</del> 06'55			-5343 Oct 29 j 11:47	0° <del>5</del>		
evening set	-5349 Sep 11 j 04:56	23° <del>5</del> 01'38		evening set	-5343 Nov 17 j 04:20	2° <del>5</del> 11'37		
				max. Earth dist.	-5343 Dec 03 j 10:47	4° <del>5</del> 12'12	10.55311 AU	
conjunction	-5349 Sep 27 j 13:04	24° <del>5</del> 054'31	2°25'38					
minimum elong	-5349 Sep 27 j 13:05	24° <del>5</del> 054'32	2°25'49	conjunction	-5343 Dec 04 j 01:12	4° <del>5</del> 16'41	0°37'49	
max. Earth dist.	-5349 Sep 26 j 20:27	24° <del>5</del> 049'42	11.22408 AU	minimum elong	-5343 Dec 04 j 01:14	4° <del>5</del> 16'42	0°37'39	
morning rise	-5349 Oct 13 j 20:12	26° <del>5</del> 047'11		morning rise	-5343 Dec 21 j 02:19	6° <del>5</del> 23'11		
	-5349 Nov 13 j 04:28	0° <del>5</del> <del>5</del>		retrograde	-5342 Apr 05 j 18:59	14° <del>5</del> 10'50		
retrograde	-5348 Jan 22 j 01:32	3° <del>5</del> 38'45		opposition	-5342 Jun 14 j 23:59	10° <del>5</del> 145'07	0°26'50	
opposition	-5348 Apr 01 j 20:27	0° <del>5</del> 22'32	2°54'49	min. Earth dist.	-5342 Jun 15 j 10:19	10° <del>5</del> 143'07	8.47305 AU	
min. Earth dist.	-5348 Apr 02 j 11:23	0° <del>5</del> 19'50	9.20310 AU	direct	-5342 Aug 22 j 00:01	7° <del>5</del> 23'46		
	-5348 Apr 07 j 00:35	30° <del>5</del> <del>5</del>		evening set	-5342 Nov 29 j 22:48	14° <del>5</del> 154'03		
direct	-5348 Jun 12 j 06:47	27° <del>5</del> 04'31			-5342 Nov 30 j 18:02	15° <del>5</del>		
	-5348 Aug 13 j 11:03	0° <del>5</del> <del>5</del>						
evening set	-5348 Sep 21 j 04:22	3° <del>5</del> 59'47		conjunction	-5342 Dec 16 j 23:57	17° <del>5</del> 102'32	0°05'55	
				minimum elong	-5342 Dec 16 j 23:58	17° <del>5</del> 102'32	0°05'42	
conjunction	-5348 Oct 07 j 12:24	5° <del>5</del> 53'21	2°20'11	behind sun begin	-5342 Dec 16 j 17:08	17° <del>5</del> 100'24		
minimum elong	-5348 Oct 07 j 12:26	5° <del>5</del> 53'21	2°20'19	behind sun end	-5342 Dec 17 j 06:47	17° <del>5</del> 104'40		
max. Earth dist.	-5348 Oct 06 j 19:00	5° <del>5</del> 48'16	11.17056 AU	max. Earth dist.	-5342 Dec 16 j 12:07	16° <del>5</del> 158'48	10.39552 AU	
morning rise	-5348 Oct 23 j 20:08	7° <del>5</del> 46'56		morning rise	-5341 Jan 03 j 06:10	19° <del>5</del> 12'39		
retrograde	-5347 Feb 01 j 19:40	14° <del>5</del> 44'05		desc. node	-5341 Feb 22 j 06:48	24° <del>5</del> 138'16		
opposition	-5347 Apr 13 j 18:11	11° <del>5</del> 26'51	2°45'07	retrograde	-5341 Apr 19 j 19:49	27° <del>5</del> 13'06		
min. Earth dist.	-5347 Apr 14 j 10:00	11° <del>5</del> 23'58	9.13477 AU	opposition	-5341 Jun 28 j 14:57	23° <del>5</del> 145'30	0°-13'-48	
direct	-5347 Jun 23 j 17:41	8° <del>5</del> 08'54		min. Earth dist.	-5341 Jun 28 j 22:35	23° <del>5</del> 143'59	8.31687 AU	
evening set	-5347 Oct 02 j 06:19	15° <del>5</del> 06'18		direct	-5341 Sep 03 j 23:37	20° <del>5</del> 122'50		
				evening set	-5341 Dec 13 j 06:35	28° <del>5</del> 103'30		
conjunction	-5347 Oct 18 j 15:05	17° <del>5</del> 01'06	2°09'24		-5341 Dec 28 j 12:05	0° <del>5</del> <del>5</del>		
minimum elong	-5347 Oct 18 j 15:08	17° <del>5</del> 01'07	2°09'29					
max. Earth dist.	-5347 Oct 17 j 20:09	16° <del>5</del> 55'32	11.08867 AU	conjunction	-5341 Dec 30 j 12:15	0° <del>5</del> 15'29	0°-27'-23	
morning rise	-5347 Nov 04 j 00:36	18° <del>5</del> 56'13		minimum elong	-5341 Dec 30 j 12:14	0° <del>5</del> 15'28	0°27'39	
retrograde	-5346 Feb 13 j 20:57	26° <del>5</del> 00'41		max. Earth dist.	-5341 Dec 30 j 04:15	0° <del>5</del> 12'55	10.24280 AU	
opposition	-5346 Apr 25 j 20:28	22° <del>5</del> 42'11	2°29'00	morning rise	-5340 Jan 16 j 23:25	2° <del>5</del> 29'14		
min. Earth dist.	-5346 Apr 26 j 13:21	22° <del>5</del> 39'05	9.03903 AU	retrograde	-5340 May 03 j 06:29	10° <del>5</del> 42'09		
direct	-5346 Jul 05 j 08:46	19° <del>5</del> 24'02		opposition	-5340 Jul 11 j 14:03	7° <del>5</del> 12'50	0°-55'-13	
evening set	-5346 Oct 13 j 12:33	26° <del>5</del> 25'07		min. Earth dist.	-5340 Jul 11 j 18:22	7° <del>5</del> 11'58	8.17003 AU	
				direct	-5340 Sep 16 j 09:20	3° <del>5</del> 48'47		
conjunction	-5346 Oct 29 j 23:03	28° <del>5</del> 21'46	1°53'24	evening set	-5340 Dec 26 j 04:18	11° <del>5</del> 40'25		
minimum elong	-5346 Oct 29 j 23:07	28° <del>5</del> 21'47	1°53'27					
max. Earth dist.	-5346 Oct 29 j 03:09	28° <del>5</del> 15'50	10.98128 AU	conjunction	-5339 Jan 12 j 14:26	13° <del>5</del> 55'45	-1°00'-5	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodiens AG 7-Dez-2017 14:33, page 6

Attention, astronomical year style is used: The year -5339 in astronomical counting style is the year 5340 BCE in historical counting style.

minimum elong	-5339 Jan 12 j 14:23	13° $\mathring{A}$ 55'44	1°00'23	retrograde	-5333 Aug 15 j 14:26	22° $\mathring{K}$ 27'19	
max. Earth dist.	-5339 Jan 12 j 11:23	13° $\mathring{A}$ 54'45	10.10319 AU	opposition	-5333 Oct 20 j 22:42	18° $\mathring{K}$ 57'43	-2°-36'-45
morning rise	-5339 Jan 30 j 06:02	16° $\mathring{A}$ 12'53		min. Earth dist.	-5333 Oct 20 j 07:10	19° $\mathring{K}$ 00'58	7.97032 AU
retrograde	-5339 May 18 j 02:48	24° $\mathring{A}$ 37'10		direct	-5333 Dec 26 j 17:27	15° $\mathring{K}$ 27'26	
opposition	-5339 Jul 25 j 20:53	21° $\mathring{A}$ 06'25	-1°-34'-53	evening set	-5332 Apr 10 j 18:01	23° $\mathring{K}$ 48'41	
min. Earth dist.	-5339 Jul 25 j 21:13	21° $\mathring{A}$ 06'20	8.04083 AU				
direct	-5339 Sep 30 j 04:15	17° $\mathring{A}$ 40'57		conjunction	-5332 Apr 28 j 21:15	26° $\mathring{K}$ 09'30	-1°-55'-29
evening set	-5338 Jan 09 j 15:43	25° $\mathring{A}$ 43'26		minimum elong	-5332 Apr 28 j 21:19	26° $\mathring{K}$ 09'31	1°55'32
				max. Earth dist.	-5332 Apr 29 j 18:04	26° $\mathring{K}$ 16'17	10.02317 AU
conjunction	-5338 Jan 27 j 06:02	28° $\mathring{A}$ 01'46	-1°-30'-7	morning rise	-5332 May 16 j 23:03	28° $\mathring{K}$ 29'45	
minimum elong	-5338 Jan 27 j 05:58	28° $\mathring{A}$ 01'45	1°30'26		-5332 May 28 j 23:39	0° $\mathring{Y}$	
max. Earth dist.	-5338 Jan 27 j 08:40	28° $\mathring{A}$ 02'38	9.98504 AU	retrograde	-5332 Aug 28 j 16:56	6° $\mathring{Y}$ 38'48	
	-5338 Feb 11 j 06:04	0° $\mathring{Z}$		min. Earth dist.	-5332 Nov 02 j 10:42	3° $\mathring{Y}$ 14'12	8.08470 AU
morning rise	-5338 Feb 14 j 01:27	0° $\mathring{Z}$ 21'50		opposition	-5332 Nov 03 j 02:22	3° $\mathring{Y}$ 10'57	-2°-9'-57
retrograde	-5338 Jun 02 j 05:59	8° $\mathring{Z}$ 55'20			-5332 Dec 21 j 21:50	30° $\mathring{R}$ $\mathring{K}$	
opposition	-5338 Aug 09 j 10:09	5° $\mathring{Z}$ 23'31	-2°-9'-54	direct	-5331 Jan 09 j 13:19	29° $\mathring{K}$ 41'03	
min. Earth dist.	-5338 Aug 09 j 06:00	5° $\mathring{Z}$ 24'22	7.93727 AU		-5331 Jan 28 j 03:40	0° $\mathring{Y}$	
direct	-5338 Oct 14 j 08:47	1° $\mathring{Z}$ 56'42		evening set	-5331 Apr 25 j 19:06	7° $\mathring{Y}$ 54'41	
evening set	-5337 Jan 24 j 15:57	10° $\mathring{Z}$ 09'08					
				conjunction	-5331 May 13 j 21:27	10° $\mathring{Y}$ 13'05	-1°-31'-15
conjunction	-5337 Feb 11 j 10:02	12° $\mathring{Z}$ 29'56	-1°-55'-13	minimum elong	-5331 May 13 j 21:30	10° $\mathring{Y}$ 13'07	1°31'14
minimum elong	-5337 Feb 11 j 09:58	12° $\mathring{Z}$ 29'55	1°55'32	max. Earth dist.	-5331 May 14 j 17:27	10° $\mathring{Y}$ 19'30	10.15110 AU
max. Earth dist.	-5337 Feb 11 j 18:01	12° $\mathring{Z}$ 32'35	9.89613 AU	morning rise	-5331 May 31 j 21:01	12° $\mathring{Y}$ 30'32	
morning rise	-5337 Mar 01 j 08:35	14° $\mathring{Z}$ 52'14		retrograde	-5331 Sep 11 j 07:28	20° $\mathring{Y}$ 25'36	
retrograde	-5337 Jun 17 j 13:15	23° $\mathring{Z}$ 31'43		opposition	-5331 Nov 16 j 21:32	16° $\mathring{Y}$ 59'40	-1°-36'-21
opposition	-5337 Aug 24 j 03:48	19° $\mathring{Z}$ 59'18	-2°-37'-21	min. Earth dist.	-5331 Nov 16 j 06:27	17° $\mathring{Y}$ 02'45	8.22243 AU
min. Earth dist.	-5337 Aug 23 j 19:35	20° $\mathring{Z}$ 01'01	7.86630 AU	direct	-5330 Jan 24 j 01:41	13° $\mathring{Y}$ 30'30	
direct	-5337 Oct 28 j 21:36	16° $\mathring{Z}$ 31'14		evening set	-5330 May 10 j 08:34	21° $\mathring{Y}$ 34'40	
evening set	-5336 Feb 09 j 02:26	24° $\mathring{Z}$ 51'46					
				conjunction	-5330 May 28 j 08:52	23° $\mathring{Y}$ 50'08	-1°-2'-30
conjunction	-5336 Feb 26 j 23:43	27° $\mathring{Z}$ 14'19	-2°-13'-16	minimum elong	-5330 May 28 j 08:55	23° $\mathring{Y}$ 50'09	1°02'24
minimum elong	-5336 Feb 26 j 23:40	27° $\mathring{Z}$ 14'18	2°13'34	max. Earth dist.	-5330 May 29 j 03:07	23° $\mathring{Y}$ 55'53	10.29804 AU
max. Earth dist.	-5336 Feb 27 j 12:25	27° $\mathring{Z}$ 18'34	9.84278 AU	morning rise	-5330 Jun 15 j 05:13	26° $\mathring{Y}$ 04'19	
morning rise	-5336 Mar 16 j 00:36	29° $\mathring{Z}$ 38'03			-5330 Jul 19 j 13:54	0° $\mathring{B}$	
	-5336 Mar 18 j 19:57	0° $\mathring{A}$		retrograde	-5330 Sep 24 j 12:17	3° $\mathring{B}$ 45'17	
retrograde	-5336 Jul 01 j 21:08	8° $\mathring{A}$ 19'29		opposition	-5330 Nov 30 j 07:52	0° $\mathring{B}$ 21'21	0°-58'-38
opposition	-5336 Sep 06 j 23:48	4° $\mathring{A}$ 46'59	-2°-54'-46	min. Earth dist.	-5330 Nov 29 j 18:20	0° $\mathring{B}$ 24'04	8.37487 AU
min. Earth dist.	-5336 Sep 06 j 12:21	4° $\mathring{A}$ 49'24	7.83298 AU		-5330 Dec 04 j 18:23	30° $\mathring{R}$ $\mathring{Y}$	
direct	-5336 Nov 11 j 16:49	1° $\mathring{A}$ 17'53		direct	-5329 Feb 07 j 04:35	26° $\mathring{Y}$ 53'08	
evening set	-5335 Feb 23 j 19:19	9° $\mathring{A}$ 43'44			-5329 Apr 10 j 15:58	0° $\mathring{B}$	
				evening set	-5329 May 24 j 09:27	4° $\mathring{B}$ 46'54	
conjunction	-5335 Mar 13 j 19:12	12° $\mathring{A}$ 07'11	-2°-22'-39				
minimum elong	-5335 Mar 13 j 19:11	12° $\mathring{A}$ 07'10	2°22'55	conjunction	-5329 Jun 11 j 06:31	6° $\mathring{B}$ 59'05	0°-31'-17
max. Earth dist.	-5335 Mar 14 j 11:53	12° $\mathring{A}$ 12'45	9.82907 AU	minimum elong	-5329 Jun 11 j 06:32	6° $\mathring{B}$ 59'05	0°31'07
morning rise	-5335 Mar 31 j 21:37	14° $\mathring{A}$ 31'23		max. Earth dist.	-5329 Jun 11 j 22:06	7° $\mathring{B}$ 03'55	10.45494 AU
	-5335 Apr 04 j 13:29	15° $\mathring{A}$		morning rise	-5329 Jun 28 j 22:43	9° $\mathring{B}$ 09'45	
retrograde	-5335 Jul 17 j 02:01	23° $\mathring{A}$ 10'21			-5329 Aug 25 j 04:50	15° $\mathring{B}$	
opposition	-5335 Sep 21 j 19:21	19° $\mathring{A}$ 38'21	-3°00'-32	retrograde	-5329 Oct 07 j 06:15	16° $\mathring{B}$ 37'23	
min. Earth dist.	-5335 Sep 21 j 05:35	19° $\mathring{A}$ 41'14	7.83991 AU		-5329 Nov 20 j 04:51	15° $\mathring{R}$ $\mathring{B}$	
direct	-5335 Nov 26 j 16:16	16° $\mathring{A}$ 08'28		opposition	-5329 Dec 13 j 09:23	13° $\mathring{B}$ 15'25	0°-19'-18
evening set	-5334 Mar 11 j 14:28	24° $\mathring{A}$ 36'16		min. Earth dist.	-5329 Dec 12 j 22:47	13° $\mathring{B}$ 17'31	8.53317 AU
				direct	-5328 Feb 20 j 22:22	9° $\mathring{B}$ 48'21	
conjunction	-5334 Mar 29 j 16:20	26° $\mathring{A}$ 59'43	-2°-22'-34		-5328 May 14 j 20:51	15° $\mathring{B}$	
minimum elong	-5334 Mar 29 j 16:21	26° $\mathring{A}$ 59'43	2°22'46	evening set	-5328 Jun 05 j 21:25	17° $\mathring{B}$ 31'30	
max. Earth dist.	-5334 Mar 30 j 11:46	27° $\mathring{A}$ 06'10	9.85632 AU	asc. node	-5328 Jun 17 j 04:09	18° $\mathring{B}$ 53'16	
morning rise	-5334 Apr 16 j 19:29	29° $\mathring{A}$ 23'28					
	-5334 Apr 21 j 12:23	0° $\mathring{K}$		conjunction	-5328 Jun 23 j 14:16	19° $\mathring{B}$ 40'16	0°00'34
retrograde	-5334 Aug 01 j 00:47	7° $\mathring{K}$ 55'39		minimum elong	-5328 Jun 23 j 14:16	19° $\mathring{B}$ 40'16	0°00'47
opposition	-5334 Oct 06 j 11:42	4° $\mathring{K}$ 24'38	-2°-54'-14	behind sun begin	-5328 Jun 23 j 07:04	19° $\mathring{B}$ 38'06	
min. Earth dist.	-5334 Oct 05 j 20:44	4° $\mathring{K}$ 27'47	7.88681 AU	behind sun end	-5328 Jun 23 j 21:27	19° $\mathring{B}$ 42'26	
direct	-5334 Dec 11 j 17:30	0° $\mathring{K}$ 54'20		max. Earth dist.	-5328 Jun 24 j 01:47	19° $\mathring{B}$ 43'46	10.61299 AU
evening set	-5333 Mar 27 j 07:25	9° $\mathring{K}$ 20'32		morning rise	-5328 Jul 11 j 01:50	21° $\mathring{B}$ 47'26	
				retrograde	-5328 Oct 18 j 12:53	29° $\mathring{B}$ 03'09	
conjunction	-5333 Apr 14 j 10:29	11° $\mathring{K}$ 43'05	-2°-13'-9	opposition	-5328 Dec 25 j 02:38	25° $\mathring{B}$ 43'00	0°19'29
minimum elong	-5333 Apr 14 j 10:32	11° $\mathring{K}$ 43'06	2°13'18	min. Earth dist.	-5328 Dec 24 j 19:38	25° $\mathring{B}$ 44'21	8.68874 AU
max. Earth dist.	-5333 Apr 15 j 07:11	11° $\mathring{K}$ 49'54	9.92262 AU	direct	-5327 Mar 05 j 07:32	22° $\mathring{B}$ 17'08	
morning rise	-5333 May 02 j 13:29	14° $\mathring{K}$ 05'29		evening set	-5327 Jun 18 j 20:51	29° $\mathring{B}$ 50'11	



# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 7

Attention, astronomical year style is used: The year -5327 in astronomical counting style is the year 5328 BCE in historical counting style.

	-5327 Jun	20 j 06:11	0°♊		minimum elong	-5321 Sep	12 j 08:56	9°♌36'02	2°24'25
					max. Earth dist.	-5321 Sep	11 j 18:49	9°♌31'57	11.23905 AU
conjunction	-5327 Jul	06 j 08:51	1°♊55'35	0°31'23	morning rise	-5321 Sep	28 j 16:59	11°♌28'34	
minimum elong	-5327 Jul	06 j 08:49	1°♊55'35	0°31'39		-5321 Nov	01 j 12:43	15°♌	
max. Earth dist.	-5327 Jul	06 j 15:08	1°♊57'29	10.76381 AU	retrograde	-5320 Jan	05 j 23:42	18°♌15'15	
morning rise	-5327 Jul	23 j 15:34	3°♊59'25		opposition	-5320 Mar	16 j 10:47	14°♌59'33	2°57'32
retrograde	-5327 Oct	30 j 12:04	11°♊05'06			-5320 Mar	16 j 08:17	15°♌♌	
opposition	-5326 Jan	06 j 12:26	7°♊46'33	0°56'06	min. Earth dist.	-5320 Mar	16 j 23:48	14°♌57'10	9.23744 AU
min. Earth dist.	-5326 Jan	06 j 08:53	7°♊47'14	8.83356 AU	direct	-5320 May	27 j 05:54	11°♌40'32	
direct	-5326 Mar	18 j 07:26	4°♊21'59			-5320 Aug	02 j 09:28	15°♌	
evening set	-5326 Jul	01 j 09:06	11°♊45'53		evening set	-5320 Sep	05 j 21:50	18°♌35'41	
conjunction	-5326 Jul	18 j 16:00	13°♊48'11	1°00'01	conjunction	-5320 Sep	22 j 06:36	20°♌28'37	2°26'21
minimum elong	-5326 Jul	18 j 15:57	13°♊48'10	1°00'18	minimum elong	-5320 Sep	22 j 06:36	20°♌28'37	2°26'34
max. Earth dist.	-5326 Jul	18 j 17:30	13°♊48'38	10.90040 AU	max. Earth dist.	-5320 Sep	21 j 14:32	20°♌23'58	11.22408 AU
morning rise	-5326 Aug	04 j 17:44	15°♊48'57		morning rise	-5320 Oct	08 j 13:44	22°♌21'11	
retrograde	-5326 Nov	11 j 04:27	22°♊46'39		retrograde	-5319 Jan	16 j 11:16	29°♌11'03	
opposition	-5325 Jan	18 j 16:00	19°♊29'25	1°29'13	opposition	-5319 Mar	28 j 04:07	25°♌54'41	2°57'06
min. Earth dist.	-5325 Jan	18 j 15:16	19°♊29'34	8.96166 AU	min. Earth dist.	-5319 Mar	28 j 19:20	25°♌51'54	9.20818 AU
direct	-5325 Mar	30 j 22:09	16°♊06'09		direct	-5319 Jun	07 j 17:24	22°♌35'57	
evening set	-5325 Jul	13 j 11:23	23°♊22'02		evening set	-5319 Sep	16 j 20:57	29°♌31'09	
conjunction	-5325 Jul	30 j 13:17	25°♊21'34	1°25'30		-5319 Sep	21 j 01:43	0°♎	
minimum elong	-5325 Jul	30 j 13:14	25°♊21'33	1°25'47	max. Earth dist.	-5319 Oct	02 j 10:29	1°♎19'07	11.18087 AU
max. Earth dist.	-5325 Jul	30 j 11:28	25°♊21'02	11.01798 AU	conjunction	-5319 Oct	03 j 04:54	1°♎24'29	2°23'14
morning rise	-5325 Aug	16 j 10:06	27°♊19'41		minimum elong	-5319 Oct	03 j 04:55	1°♎24'29	2°23'24
	-5325 Sep	09 j 21:29	0°♏		morning rise	-5319 Oct	19 j 12:23	3°♎17'44	
retrograde	-5325 Nov	22 j 17:14	4°♏11'26		retrograde	-5318 Jan	28 j 01:38	10°♎12'29	
opposition	-5324 Jan	30 j 14:56	0°♏55'13	1°57'56	opposition	-5318 Apr	09 j 00:20	6°♎55'10	2°50'13
min. Earth dist.	-5324 Jan	30 j 17:26	0°♏54'45	9.06900 AU	min. Earth dist.	-5318 Apr	09 j 16:56	6°♎52'08	9.15096 AU
	-5324 Feb	12 j 02:48	30°♎♊		direct	-5318 Jun	19 j 04:45	3°♎36'34	
direct	-5324 Apr	11 j 05:37	27°♊33'07		evening set	-5318 Sep	27 j 21:25	10°♎33'15	
	-5324 Jun	07 j 08:03	0°♏		max. Earth dist.	-5318 Oct	13 j 10:59	12°♎22'03	11.11068 AU
evening set	-5324 Jul	24 j 05:00	4°♏42'12		conjunction	-5318 Oct	14 j 05:45	12°♎27'34	2°14'46
conjunction	-5324 Aug	10 j 02:07	6°♏39'22	1°47'06	minimum elong	-5318 Oct	14 j 05:47	12°♎27'34	2°14'53
minimum elong	-5324 Aug	10 j 02:05	6°♏39'21	1°47'24	morning rise	-5318 Oct	30 j 14:32	14°♎22'05	
max. Earth dist.	-5324 Aug	09 j 20:50	6°♏37'50	11.11301 AU	retrograde	-5317 Feb	09 j 00:00	21°♎23'28	
morning rise	-5324 Aug	26 j 18:33	8°♏35'16		opposition	-5317 Apr	21 j 00:31	18°♎04'56	2°36'53
retrograde	-5324 Dec	03 j 02:19	15°♏22'59		min. Earth dist.	-5317 Apr	21 j 16:57	18°♎01'55	9.06751 AU
opposition	-5323 Feb	10 j 10:15	12°♏07'26	2°21'32	direct	-5317 Jun	30 j 19:51	14°♎46'17	
min. Earth dist.	-5323 Feb	10 j 16:30	12°♏06'17	9.15235 AU	evening set	-5317 Oct	09 j 01:22	21°♎45'54	
direct	-5323 Apr	23 j 04:53	8°♏46'22		conjunction	-5317 Oct	25 j 11:12	23°♎41'49	2°01'01
evening set	-5323 Aug	04 j 15:50	15°♏49'56		minimum elong	-5317 Oct	25 j 11:15	23°♎41'50	2°01'05
conjunction	-5323 Aug	21 j 08:33	17°♏45'14	2°04'19	max. Earth dist.	-5317 Oct	24 j 17:06	23°♎36'26	11.01564 AU
minimum elong	-5323 Aug	21 j 08:30	17°♏45'13	2°04'37	morning rise	-5317 Nov	10 j 22:13	25°♎38'11	
max. Earth dist.	-5323 Aug	20 j 23:01	17°♏42'28	11.18274 AU		-5317 Dec	22 j 20:26	0°♎	
morning rise	-5323 Sep	06 j 21:24	19°♏39'27		retrograde	-5316 Feb	21 j 05:55	2°♎47'45	
retrograde	-5323 Dec	14 j 07:44	26°♏24'59			-5316 Apr	24 j 23:32	30°♎♎	
opposition	-5322 Feb	22 j 02:59	23°♏09'44	2°39'33	opposition	-5316 May	02 j 05:48	29°♎27'49	2°17'10
min. Earth dist.	-5322 Feb	22 j 12:30	23°♏07'59	9.20920 AU	min. Earth dist.	-5316 May	02 j 21:23	29°♎24'56	8.96053 AU
direct	-5322 May	05 j 01:11	19°♏49'30		direct	-5316 Jul	11 j 11:31	26°♎08'56	
evening set	-5322 Aug	15 j 21:09	26°♏48'56			-5316 Sep	20 j 03:16	0°♎	
conjunction	-5322 Sep	01 j 10:14	28°♏42'52	2°16'45	evening set	-5316 Oct	19 j 10:46	3°♎13'00	
minimum elong	-5322 Sep	01 j 10:12	28°♏42'51	2°17'02	conjunction	-5316 Nov	04 j 22:54	5°♎11'02	1°42'10
max. Earth dist.	-5322 Aug	31 j 21:35	28°♏39'12	11.22517 AU	minimum elong	-5316 Nov	04 j 22:57	5°♎11'03	1°42'11
	-5322 Sep	12 j 13:57	0°♌		max. Earth dist.	-5316 Nov	04 j 04:52	5°♎05'37	10.89887 AU
morning rise	-5322 Sep	17 j 20:17	0°♌35'57		morning rise	-5316 Nov	21 j 13:14	7°♎09'50	
retrograde	-5322 Dec	25 j 15:30	7°♌21'10		retrograde	-5315 Mar	04 j 19:43	14°♎29'03	
opposition	-5321 Mar	05 j 18:46	4°♌05'51	2°51'37	opposition	-5315 May	14 j 17:29	11°♎07'35	1°51'20
min. Earth dist.	-5321 Mar	06 j 06:05	4°♌03'47	9.23782 AU	min. Earth dist.	-5315 May	15 j 08:28	11°♎04'46	8.83367 AU
direct	-5321 May	16 j 17:53	0°♌46'19		direct	-5315 Jul	23 j 08:12	7°♎48'15	
evening set	-5321 Aug	26 j 22:27	7°♌42'54		evening set	-5315 Oct	31 j 03:33	14°♎58'17	
conjunction	-5321 Sep	12 j 08:57	9°♌36'03	2°24'10	conjunction	-5315 Nov	16 j 18:41	16°♎58'55	1°18'36

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 8

Attention, astronomical year style is used: The year -5315 in astronomical counting style is the year 5316 BCE in historical counting style.

minimum elong	-5315 Nov 16 j 18:44	16°♄58'56	1°18'32	min. Earth dist.	-5309 Aug 03 j 10:07	29°♄27'19	7.99503 AU
max. Earth dist.	-5315 Nov 16 j 01:19	16°♄53'38	10.76454 AU	direct	-5309 Oct 08 j 13:46	26°♄01'09	
morning rise	-5315 Dec 03 j 13:10	19°♄00'37			-5309 Dec 15 j 01:28	0°♄	
retrograde	-5314 Mar 17 j 19:36	26°♄30'50		evening set	-5308 Jan 18 j 13:25	4°♄08'53	
opposition	-5314 May 27 j 12:28	23°♄07'42	1°19'54				
min. Earth dist.	-5314 May 28 j 02:17	23°♄05'04	8.69181 AU	conjunction	-5308 Feb 05 j 05:35	6°♄28'26	-1°-45'-4
direct	-5314 Aug 04 j 11:43	19°♄47'42		minimum elong	-5308 Feb 05 j 05:31	6°♄28'25	1°45'23
evening set	-5314 Nov 12 j 05:38	27°♄05'09		max. Earth dist.	-5308 Feb 05 j 10:26	6°♄30'03	9.94825 AU
max. Earth dist.	-5314 Nov 28 j 09:35	29°♄04'10	10.61795 AU	morning rise	-5308 Feb 23 j 02:49	8°♄49'37	
				retrograde	-5308 Jun 10 j 09:18	17°♄26'14	
conjunction	-5314 Nov 29 j 00:36	29°♄08'49	0°50'53	opposition	-5308 Aug 17 j 04:47	13°♄54'43	-2°-26'-26
minimum elong	-5314 Nov 29 j 00:38	29°♄08'49	0°50'46	min. Earth dist.	-5308 Aug 16 j 23:01	13°♄55'55	7.91075 AU
	-5314 Dec 05 j 22:17	0°♄		direct	-5308 Oct 21 j 23:51	10°♄27'50	
morning rise	-5314 Dec 15 j 23:42	1°♄13'48		evening set	-5307 Feb 01 j 19:27	18°♄44'28	
retrograde	-5313 Mar 31 j 04:57	8°♄56'04					
opposition	-5313 Jun 09 j 15:25	5°♄31'11	0°43'41	conjunction	-5307 Feb 19 j 15:06	21°♄06'05	-2°-6'-22
min. Earth dist.	-5313 Jun 10 j 02:55	5°♄28'58	8.54099 AU	minimum elong	-5307 Feb 19 j 15:03	21°♄06'04	2°06'40
direct	-5313 Aug 16 j 22:49	2°♄10'21		max. Earth dist.	-5307 Feb 20 j 00:24	21°♄09'11	9.87902 AU
evening set	-5313 Nov 24 j 18:52	9°♄36'34		morning rise	-5307 Mar 09 j 15:02	23°♄29'03	
					-5307 May 07 j 02:55	0°♄	
conjunction	-5313 Dec 11 j 18:12	11°♄43'32	0°19'58	retrograde	-5307 Jun 25 j 16:22	2°♄09'30	
minimum elong	-5313 Dec 11 j 18:13	11°♄43'33	0°19'46		-5307 Aug 15 j 02:26	30°♄	
max. Earth dist.	-5313 Dec 11 j 06:56	11°♄40'00	10.46541 AU	opposition	-5307 Aug 31 j 23:54	28°♄37'41	-2°-48'-24
morning rise	-5313 Dec 28 j 22:08	13°♄52'03		min. Earth dist.	-5307 Aug 31 j 15:04	28°♄39'32	7.85935 AU
	-5312 Jan 07 j 06:19	15°♄		direct	-5307 Nov 05 j 16:56	25°♄09'39	
retrograde	-5312 Apr 13 j 01:47	21°♄46'58			-5306 Jan 19 j 17:37	0°♄	
opposition	-5312 Jun 22 j 02:44	18°♄20'21	0°04'00	evening set	-5306 Feb 17 j 09:36	3°♄32'59	
min. Earth dist.	-5312 Jun 22 j 10:39	18°♄18'48	8.38803 AU				
desc. node	-5312 Jul 28 j 22:53	15°♄48'00		conjunction	-5306 Mar 07 j 08:17	5°♄55'57	-2°-19'-37
	-5312 Aug 23 j 14:51	15°♄		minimum elong	-5306 Mar 07 j 08:15	5°♄55'56	2°19'54
direct	-5312 Aug 28 j 18:55	14°♄58'33		max. Earth dist.	-5306 Mar 07 j 21:54	6°♄00'30	9.84530 AU
	-5312 Sep 02 j 22:10	15°♄		morning rise	-5306 Mar 25 j 10:08	8°♄19'53	
evening set	-5312 Dec 06 j 20:57	22°♄34'37			-5306 May 24 j 14:46	15°♄	
				retrograde	-5306 Jul 10 j 22:20	17°♄00'03	
conjunction	-5312 Dec 24 j 00:43	24°♄45'02	0°-12'-58		-5306 Aug 27 j 23:51	15°♄	
minimum elong	-5312 Dec 24 j 00:42	24°♄45'02	0°13'14	opposition	-5306 Sep 15 j 19:52	13°♄28'25	-2°-59'-19
behind sun begin	-5312 Dec 23 j 20:30	24°♄43'43		min. Earth dist.	-5306 Sep 15 j 08:06	13°♄30'53	7.84530 AU
behind sun end	-5312 Dec 24 j 04:54	24°♄46'22		direct	-5306 Nov 20 j 14:44	9°♄59'25	
max. Earth dist.	-5312 Dec 23 j 17:10	24°♄42'39	10.31417 AU		-5305 Feb 05 j 10:13	15°♄	
morning rise	-5311 Jan 10 j 09:30	26°♄57'09		evening set	-5305 Mar 05 j 04:18	18°♄26'26	
	-5311 Feb 05 j 00:37	0°♄					
retrograde	-5311 Apr 27 j 10:01	5°♄04'41		conjunction	-5305 Mar 23 j 05:25	20°♄49'52	-2°-23'-40
opposition	-5311 Jul 05 j 22:26	1°♄36'28	0°-37'-22	minimum elong	-5305 Mar 23 j 05:26	20°♄49'52	2°23'53
min. Earth dist.	-5311 Jul 06 j 02:31	1°♄35'40	8.24067 AU	max. Earth dist.	-5305 Mar 23 j 22:42	20°♄55'38	9.85081 AU
	-5311 Jul 27 j 01:03	30°♄		morning rise	-5305 Apr 10 j 08:19	23°♄13'49	
direct	-5311 Sep 10 j 23:02	28°♄13'32			-5305 Jun 11 j 03:33	0°♄	
	-5311 Oct 25 j 08:43	0°♄		retrograde	-5305 Jul 26 j 00:15	1°♄49'16	
evening set	-5311 Dec 20 j 12:47	6°♄00'12			-5305 Sep 09 j 11:27	30°♄	
				opposition	-5305 Sep 30 j 13:51	28°♄18'15	-2°-58'-15
conjunction	-5310 Jan 06 j 20:53	8°♄14'00	0°-46'-8	min. Earth dist.	-5305 Sep 29 j 23:45	28°♄21'12	7.87074 AU
minimum elong	-5310 Jan 06 j 20:51	8°♄14'00	0°46'26	direct	-5305 Dec 05 j 15:27	24°♄48'33	
max. Earth dist.	-5310 Jan 06 j 17:16	8°♄12'50	10.17232 AU		-5304 Feb 22 j 13:33	0°♄	
morning rise	-5310 Jan 24 j 10:22	10°♄29'35		evening set	-5304 Mar 19 j 22:51	3°♄15'41	
retrograde	-5310 May 12 j 04:07	18°♄48'55					
opposition	-5310 Jul 20 j 02:16	15°♄19'18	-1°-18'-6	conjunction	-5304 Apr 07 j 01:36	5°♄38'41	-2°-18'-14
min. Earth dist.	-5310 Jul 20 j 02:41	15°♄19'13	8.10712 AU	minimum elong	-5304 Apr 07 j 01:39	5°♄38'42	2°18'24
direct	-5310 Sep 24 j 12:33	11°♄55'05		max. Earth dist.	-5304 Apr 07 j 21:31	5°♄45'16	9.89605 AU
evening set	-5309 Jan 03 j 18:28	19°♄52'33		morning rise	-5304 Apr 25 j 04:40	8°♄01'43	
				retrograde	-5304 Aug 08 j 18:44	16°♄28'26	
conjunction	-5309 Jan 21 j 06:45	22°♄09'27	-1°-17'-35	opposition	-5304 Oct 14 j 03:35	12°♄58'27	-2°-45'-28
minimum elong	-5309 Jan 21 j 06:42	22°♄09'26	1°17'54	min. Earth dist.	-5304 Oct 13 j 12:05	13°♄01'42	7.93437 AU
max. Earth dist.	-5309 Jan 21 j 07:18	22°♄09'38	10.04795 AU	direct	-5304 Dec 19 j 16:09	9°♄28'24	
morning rise	-5309 Feb 08 j 00:31	24°♄28'08		evening set	-5303 Apr 04 j 12:37	17°♄52'04	
	-5309 Mar 28 j 14:34	0°♄					
retrograde	-5309 May 27 j 04:27	2°♄57'29		conjunction	-5303 Apr 22 j 16:04	20°♄13'45	-2°-3'-59
	-5309 Jul 27 j 17:34	30°♄		minimum elong	-5303 Apr 22 j 16:08	20°♄13'46	2°04'04
opposition	-5309 Aug 03 j 12:59	29°♄26'44	-1°-55'-26	max. Earth dist.	-5303 Apr 23 j 13:12	20°♄20'40	9.97796 AU

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), AstroDienst AG 7-Dez-2017 14:33, page 9

Attention, astronomical year style is used: The year -5303 in astronomical counting style is the year 5304 BCE in historical counting style.

morning rise	-5303 May 10 j 18:22	22° $\Upsilon$ 35'00		conjunction	-5297 Jul 13 j 19:53	8° $\Pi$ 58'18	0°47'55
	-5303 Jul 24 j 04:10	0° $\Upsilon$		minimum elong	-5297 Jul 13 j 19:51	8° $\Pi$ 58'17	0°48'12
retrograde	-5303 Aug 23 j 02:47	0° $\Upsilon$ 49'59		max. Earth dist.	-5297 Jul 14 j 01:10	8° $\Pi$ 59'53	10.83071 AU
	-5303 Sep 22 j 04:01	30° $\Re$		morning rise	-5297 Jul 30 j 23:44	11° $\Pi$ 00'26	
opposition	-5303 Oct 28 j 10:46	27° $\Upsilon$ 21'24	-2°-22'-28	retrograde	-5297 Nov 06 j 13:50	18° $\Pi$ 01'27	
min. Earth dist.	-5303 Oct 27 j 19:17	27° $\Upsilon$ 24'37	8.03175 AU	opposition	-5296 Jan 13 j 20:44	14° $\Pi$ 43'09	1°15'20
direct	-5302 Jan 03 j 13:42	23° $\Upsilon$ 51'20		min. Earth dist.	-5296 Jan 13 j 18:20	14° $\Pi$ 43'36	8.89742 AU
	-5302 Apr 02 j 08:12	0° $\Upsilon$		direct	-5296 Mar 24 j 21:51	11° $\Pi$ 18'47	
evening set	-5302 Apr 19 j 18:20	2° $\Upsilon$ 08'32		evening set	-5296 Jul 07 j 16:46	18° $\Pi$ 38'00	
conjunction	-5302 May 07 j 21:20	4° $\Upsilon$ 28'07	-1°-42'-23	conjunction	-5296 Jul 24 j 20:52	20° $\Pi$ 38'44	1°14'51
minimum elong	-5302 May 07 j 21:24	4° $\Upsilon$ 28'08	1°42'24	minimum elong	-5296 Jul 24 j 20:50	20° $\Pi$ 38'43	1°15'08
max. Earth dist.	-5302 May 08 j 17:47	4° $\Upsilon$ 34'43	10.09061 AU	max. Earth dist.	-5296 Jul 24 j 21:36	20° $\Pi$ 38'57	10.96066 AU
morning rise	-5302 May 25 j 21:56	6° $\Upsilon$ 46'52		morning rise	-5296 Aug 10 j 19:52	22° $\Pi$ 38'00	
retrograde	-5302 Sep 05 j 23:00	14° $\Upsilon$ 48'15		retrograde	-5296 Nov 17 j 02:34	29° $\Pi$ 31'58	
opposition	-5302 Nov 11 j 09:47	11° $\Upsilon$ 21'20	-1°-51'-33	opposition	-5295 Jan 24 j 21:09	26° $\Pi$ 14'55	1°46'02
min. Earth dist.	-5302 Nov 10 j 19:27	11° $\Upsilon$ 24'17	8.15611 AU	min. Earth dist.	-5295 Jan 24 j 22:04	26° $\Pi$ 14'45	9.01878 AU
direct	-5301 Jan 18 j 05:28	7° $\Upsilon$ 51'36		direct	-5295 Apr 06 j 08:47	22° $\Pi$ 51'53	
evening set	-5301 May 04 j 13:15	16° $\Upsilon$ 00'09		evening set	-5295 Jul 19 j 13:38	0° $\Theta$ 03'36	
					-5295 Jul 19 j 01:00	0° $\Theta$	
conjunction	-5301 May 22 j 14:35	18° $\Upsilon$ 17'01	-1°-15'-21	conjunction	-5295 Aug 05 j 12:44	2° $\Theta$ 01'44	1°38'11
minimum elong	-5301 May 22 j 14:39	18° $\Upsilon$ 17'02	1°15'18	minimum elong	-5295 Aug 05 j 12:41	2° $\Theta$ 01'43	1°38'29
max. Earth dist.	-5301 May 23 j 08:47	18° $\Upsilon$ 22'48	10.22622 AU	max. Earth dist.	-5295 Aug 05 j 09:15	2° $\Theta$ 00'43	11.07103 AU
morning rise	-5301 Jun 09 j 12:30	20° $\Upsilon$ 32'44		morning rise	-5295 Aug 22 j 07:15	3° $\Theta$ 58'32	
retrograde	-5301 Sep 19 j 07:33	28° $\Upsilon$ 19'57		retrograde	-5295 Nov 28 j 12:28	10° $\Theta$ 47'28	
min. Earth dist.	-5301 Nov 24 j 11:24	24° $\Upsilon$ 57'25	8.29934 AU	opposition	-5294 Feb 05 j 17:15	7° $\Theta$ 31'22	2°11'52
opposition	-5301 Nov 25 j 00:06	24° $\Upsilon$ 54'51	-1°-15'-19	min. Earth dist.	-5294 Feb 05 j 20:38	7° $\Theta$ 30'44	9.11842 AU
direct	-5300 Feb 01 j 13:19	21° $\Upsilon$ 25'47		direct	-5294 Apr 18 j 11:41	4° $\Theta$ 09'38	
evening set	-5300 May 17 j 19:32	29° $\Upsilon$ 24'17		evening set	-5294 Jul 31 j 02:45	11° $\Theta$ 15'08	
	-5300 May 22 j 15:36	0° $\Re$					
conjunction	-5300 Jun 04 j 18:04	1° $\Re$ 38'01	0°-44'-59	conjunction	-5294 Aug 16 j 21:23	13° $\Theta$ 11'08	1°57'20
minimum elong	-5300 Jun 04 j 18:06	1° $\Re$ 38'02	0°44'51	minimum elong	-5294 Aug 16 j 21:20	13° $\Theta$ 11'07	1°57'38
max. Earth dist.	-5300 Jun 05 j 09:13	1° $\Re$ 42'45	10.37622 AU	max. Earth dist.	-5294 Aug 16 j 15:12	13° $\Theta$ 09'20	11.15783 AU
morning rise	-5300 Jun 22 j 12:22	3° $\Re$ 50'21		morning rise	-5294 Sep 02 j 11:45	15° $\Theta$ 05'57	
retrograde	-5300 Oct 01 j 04:31	11° $\Re$ 23'51		retrograde	-5294 Dec 09 j 19:55	21° $\Theta$ 51'48	
opposition	-5300 Dec 07 j 05:20	8° $\Re$ 00'35	0°-36'-25	opposition	-5293 Feb 17 j 10:29	18° $\Theta$ 36'22	2°32'19
min. Earth dist.	-5300 Dec 06 j 18:19	8° $\Re$ 02'47	8.45292 AU	min. Earth dist.	-5293 Feb 17 j 16:28	18° $\Theta$ 35'16	9.19292 AU
direct	-5299 Feb 14 j 12:35	4° $\Re$ 32'29		direct	-5293 Apr 30 j 08:46	15° $\Theta$ 15'48	
evening set	-5299 May 31 j 12:55	12° $\Re$ 20'27		evening set	-5293 Aug 11 j 09:50	22° $\Theta$ 16'25	
conjunction	-5299 Jun 18 j 07:44	14° $\Re$ 30'49	0°-13'-15	conjunction	-5293 Aug 28 j 00:33	24° $\Theta$ 10'47	2°11'52
minimum elong	-5299 Jun 18 j 07:45	14° $\Re$ 30'49	0°13'04	minimum elong	-5293 Aug 28 j 00:31	24° $\Theta$ 10'46	2°12'10
behind sun begin	-5299 Jun 18 j 03:30	14° $\Re$ 29'32		max. Earth dist.	-5293 Aug 27 j 15:39	24° $\Theta$ 08'13	11.21829 AU
behind sun end	-5299 Jun 18 j 11:59	14° $\Re$ 32'07		morning rise	-5293 Sep 13 j 11:34	26° $\Theta$ 04'10	
max. Earth dist.	-5299 Jun 18 j 19:38	14° $\Re$ 34'28	10.53213 AU		-5293 Oct 21 j 20:55	0° $\Omega$	
	-5299 Jun 22 j 06:36	15° $\Re$		retrograde	-5293 Dec 21 j 03:09	2° $\Omega$ 48'47	
morning rise	-5299 Jul 05 j 21:40	16° $\Re$ 39'39			-5292 Feb 23 j 01:50	30° $\Re$	
retrograde	-5299 Oct 13 j 15:18	24° $\Re$ 00'36		opposition	-5292 Feb 29 j 02:13	29° $\Theta$ 33'42	2°46'58
asc. node	-5299 Nov 22 j 16:20	22° $\Re$ 39'29		min. Earth dist.	-5292 Feb 29 j 11:32	29° $\Theta$ 32'00	9.23998 AU
opposition	-5299 Dec 20 j 01:47	20° $\Re$ 39'07	0°02'50	direct	-5292 May 11 j 00:35	26° $\Theta$ 14'07	
min. Earth dist.	-5299 Dec 19 j 16:46	20° $\Re$ 40'53	8.60862 AU		-5292 Jul 22 j 05:57	0° $\Omega$	
direct	-5298 Feb 28 j 01:58	17° $\Re$ 12'09		evening set	-5292 Aug 21 j 12:23	3° $\Omega$ 11'14	
evening set	-5298 Jun 13 j 17:39	24° $\Re$ 49'46					
conjunction	-5298 Jul 01 j 08:03	26° $\Re$ 56'45	0°18'13	conjunction	-5292 Sep 06 j 23:50	5° $\Omega$ 04'30	2°21'28
minimum elong	-5298 Jul 01 j 08:02	26° $\Re$ 56'44	0°18'28	minimum elong	-5292 Sep 06 j 23:49	5° $\Omega$ 04'30	2°21'44
max. Earth dist.	-5298 Jul 01 j 16:59	26° $\Re$ 59'26	10.68596 AU	max. Earth dist.	-5292 Sep 06 j 11:16	5° $\Omega$ 00'53	11.25060 AU
morning rise	-5298 Jul 18 j 17:01	29° $\Re$ 02'07		morning rise	-5292 Sep 23 j 08:38	6° $\Omega$ 57'04	
	-5298 Jul 26 j 23:03	0° $\Pi$		retrograde	-5292 Dec 31 j 08:33	13° $\Omega$ 42'15	
retrograde	-5298 Oct 25 j 19:07	6° $\Pi$ 12'10		opposition	-5291 Mar 11 j 17:31	10° $\Omega$ 27'08	2°55'33
opposition	-5297 Jan 01 j 14:36	2° $\Pi$ 52'21	0°40'35	min. Earth dist.	-5291 Mar 12 j 05:35	10° $\Omega$ 24'56	9.25808 AU
min. Earth dist.	-5297 Jan 01 j 08:34	2° $\Pi$ 53'31	8.75892 AU	direct	-5291 May 22 j 13:09	7° $\Omega$ 08'20	
	-5297 Feb 14 j 23:25	30° $\Re$		evening set	-5291 Sep 01 j 12:11	14° $\Omega$ 03'21	
direct	-5297 Mar 13 j 04:27	29° $\Re$ 26'40			-5291 Sep 09 j 18:53	15° $\Omega$	
	-5297 Apr 08 j 07:50	0° $\Pi$		conjunction	-5291 Sep 17 j 21:25	15° $\Omega$ 56'07	2°25'57
evening set	-5297 Jun 26 j 10:32	6° $\Pi$ 54'34		minimum elong	-5291 Sep 17 j 21:24	15° $\Omega$ 56'07	2°26'10

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 10

Attention, astronomical year style is used: The year -5291 in astronomical counting style is the year 5292 BCE in historical counting style.

max. Earth dist.	-5291 Sep 17 j 06:25	15° $\Omega$ 51'47	11.25369 AU	retrograde	-5284 Mar 24 j 12:51	3° $\mathbb{M}$ 31'43	
morning rise	-5291 Oct 04 j 04:52	17° $\Omega$ 48'24		opposition	-5284 Jun 03 j 01:41	0° $\mathbb{M}$ 07'54	1°00'30
retrograde	-5290 Jan 11 j 18:52	24° $\Omega$ 35'56		min. Earth dist.	-5284 Jun 03 j 14:51	0° $\mathbb{M}$ 05'23	8.62313 AU
opposition	-5290 Mar 23 j 09:33	21° $\Omega$ 20'26	2°57'52		-5284 Jun 04 j 19:03	30° $\mathbb{R}$ $\underline{\Omega}$	
min. Earth dist.	-5290 Mar 23 j 23:08	21° $\Omega$ 17'58	9.24643 AU	direct	-5284 Aug 10 j 16:19	26° $\underline{\Omega}$ 47'39	
direct	-5290 Jun 03 j 02:38	18° $\Omega$ 02'11			-5284 Oct 12 j 00:46	0° $\mathbb{M}$	
evening set	-5290 Sep 12 j 10:48	24° $\Omega$ 56'29		evening set	-5284 Nov 18 j 11:28	4° $\mathbb{M}$ 09'04	
conjunction	-5290 Sep 28 j 18:57	26° $\Omega$ 49'20	2°25'09	conjunction	-5284 Dec 05 j 08:36	6° $\mathbb{M}$ 14'20	0°34'16
minimum elong	-5290 Sep 28 j 18:58	26° $\Omega$ 49'21	2°25'20	minimum elong	-5284 Dec 05 j 08:37	6° $\mathbb{M}$ 14'20	0°34'06
max. Earth dist.	-5290 Sep 28 j 03:00	26° $\Omega$ 44'42	11.22725 AU	max. Earth dist.	-5284 Dec 04 j 17:14	6° $\mathbb{M}$ 09'34	10.54500 AU
morning rise	-5290 Oct 15 j 01:59	28° $\Omega$ 41'58		morning rise	-5284 Dec 22 j 10:13	8° $\mathbb{M}$ 21'03	
	-5290 Oct 26 j 18:31	0° $\mathbb{M}$			-5283 Feb 28 j 15:43	15° $\mathbb{M}$	
retrograde	-5289 Jan 23 j 08:12	5° $\mathbb{M}$ 33'32		retrograde	-5283 Apr 07 j 03:33	16° $\mathbb{M}$ 09'28	
opposition	-5289 Apr 04 j 03:56	2° $\mathbb{M}$ 17'18	2°53'49		-5283 May 15 j 05:28	15° $\mathbb{R}$ $\mathbb{M}$	
min. Earth dist.	-5289 Apr 04 j 18:30	2° $\mathbb{M}$ 14'39	9.20516 AU	opposition	-5283 Jun 16 j 08:41	12° $\mathbb{M}$ 43'42	0°22'20
	-5289 May 08 j 22:40	30° $\mathbb{R}$ $\Omega$		min. Earth dist.	-5283 Jun 16 j 19:45	12° $\mathbb{M}$ 41'33	8.46411 AU
direct	-5289 Jun 14 j 12:50	28° $\Omega$ 59'23		direct	-5283 Aug 23 j 07:57	9° $\mathbb{M}$ 22'17	
	-5289 Jul 20 j 07:05	0° $\mathbb{M}$			-5283 Nov 15 j 14:31	15° $\mathbb{M}$	
evening set	-5289 Sep 23 j 10:03	5° $\mathbb{M}$ 54'21		evening set	-5283 Dec 01 j 06:48	16° $\mathbb{M}$ 53'14	
conjunction	-5289 Oct 09 j 18:03	7° $\mathbb{M}$ 47'54	2°19'03	conjunction	-5283 Dec 18 j 08:18	19° $\mathbb{M}$ 01'57	0°02'13
minimum elong	-5289 Oct 09 j 18:05	7° $\mathbb{M}$ 47'54	2°19'11	minimum elong	-5283 Dec 18 j 08:18	19° $\mathbb{M}$ 01'57	0°01'59
max. Earth dist.	-5289 Oct 09 j 00:26	7° $\mathbb{M}$ 42'45	11.17172 AU	behind sun begin	-5283 Dec 18 j 01:10	18° $\mathbb{M}$ 59'43	
morning rise	-5289 Oct 26 j 01:53	9° $\mathbb{M}$ 41'30		behind sun end	-5283 Dec 18 j 15:25	19° $\mathbb{M}$ 04'11	
retrograde	-5288 Feb 04 j 03:15	16° $\mathbb{M}$ 38'46		max. Earth dist.	-5283 Dec 17 j 20:14	18° $\mathbb{M}$ 58'09	10.38601 AU
opposition	-5288 Apr 15 j 01:44	13° $\mathbb{M}$ 21'31	2°43'21	morning rise	-5282 Jan 04 j 14:55	21° $\mathbb{M}$ 12'20	
min. Earth dist.	-5288 Apr 15 j 17:56	13° $\mathbb{M}$ 18'33	9.13503 AU	desc. node	-5282 Jan 12 j 04:03	22° $\mathbb{M}$ 07'51	
direct	-5288 Jun 25 j 00:55	10° $\mathbb{M}$ 03'37		retrograde	-5282 Apr 21 j 05:24	29° $\mathbb{M}$ 13'39	
evening set	-5288 Oct 03 j 11:56	17° $\mathbb{M}$ 00'47		opposition	-5282 Jun 30 j 00:15	25° $\mathbb{M}$ 45'59	0°-18'-25
conjunction	-5288 Oct 19 j 20:45	18° $\mathbb{M}$ 55'38	2°07'39	min. Earth dist.	-5282 Jun 30 j 08:22	25° $\mathbb{M}$ 44'23	8.30687 AU
minimum elong	-5288 Oct 19 j 20:48	18° $\mathbb{M}$ 55'38	2°07'44	direct	-5282 Sep 05 j 08:25	22° $\mathbb{M}$ 23'16	
max. Earth dist.	-5288 Oct 19 j 01:15	18° $\mathbb{M}$ 49'53	11.08822 AU	evening set	-5282 Dec 14 j 15:35	0° $\mathbb{M}$ 04'43	
morning rise	-5288 Nov 05 j 06:35	20° $\mathbb{M}$ 50'49			-5282 Dec 14 j 00:33	0° $\mathbb{M}$	
retrograde	-5287 Feb 15 j 03:14	27° $\mathbb{M}$ 55'27		conjunction	-5282 Dec 31 j 21:40	2° $\mathbb{M}$ 16'57	0°-31'-3
opposition	-5287 Apr 27 j 03:54	24° $\mathbb{M}$ 36'54	2°26'30	minimum elong	-5282 Dec 31 j 21:38	2° $\mathbb{M}$ 16'57	0°31'20
min. Earth dist.	-5287 Apr 27 j 21:17	24° $\mathbb{M}$ 33'42	9.03766 AU	max. Earth dist.	-5282 Dec 31 j 14:13	2° $\mathbb{M}$ 14'34	10.23248 AU
direct	-5287 Jul 06 j 14:57	21° $\mathbb{M}$ 18'46		morning rise	-5281 Jan 18 j 09:06	4° $\mathbb{M}$ 30'58	
evening set	-5287 Oct 14 j 18:11	28° $\mathbb{M}$ 19'46		retrograde	-5281 May 05 j 17:43	12° $\mathbb{M}$ 44'51	
	-5287 Oct 28 j 21:38	0° $\underline{\Omega}$		opposition	-5281 Jul 14 j 00:01	9° $\mathbb{M}$ 15'27	0°-59'-42
max. Earth dist.	-5287 Oct 30 j 09:21	0° $\underline{\Omega}$ 10'39	10.97904 AU	min. Earth dist.	-5281 Jul 14 j 04:10	9° $\mathbb{M}$ 14'37	8.15964 AU
conjunction	-5287 Oct 31 j 04:56	0° $\underline{\Omega}$ 16'29	1°51'05	direct	-5281 Sep 18 j 18:13	5° $\mathbb{M}$ 51'20	
minimum elong	-5287 Oct 31 j 05:00	0° $\underline{\Omega}$ 16'30	1°51'07	evening set	-5281 Dec 28 j 14:30	13° $\mathbb{M}$ 43'52	
morning rise	-5287 Nov 16 j 17:37	2° $\underline{\Omega}$ 13'51		conjunction	-5280 Jan 15 j 01:03	15° $\mathbb{M}$ 59'28	-1°-3'-31
retrograde	-5286 Feb 27 j 11:56	9° $\underline{\Omega}$ 27'33		minimum elong	-5280 Jan 15 j 01:00	15° $\mathbb{M}$ 59'27	1°03'50
opposition	-5286 May 09 j 12:03	6° $\underline{\Omega}$ 07'25	2°03'27	max. Earth dist.	-5280 Jan 14 j 22:43	15° $\mathbb{M}$ 58'43	10.09279 AU
min. Earth dist.	-5286 May 10 j 04:54	6° $\underline{\Omega}$ 04'17	8.91638 AU	morning rise	-5280 Feb 01 j 16:52	18° $\mathbb{M}$ 16'51	
direct	-5286 Jul 18 j 10:38	2° $\underline{\Omega}$ 48'50		retrograde	-5280 May 19 j 14:42	26° $\mathbb{M}$ 42'04	
evening set	-5286 Oct 26 j 06:44	9° $\underline{\Omega}$ 55'10		opposition	-5280 Jul 27 j 07:30	23° $\mathbb{M}$ 11'14	-1°-38'-57
conjunction	-5286 Nov 11 j 20:24	11° $\underline{\Omega}$ 54'19	1°29'38	min. Earth dist.	-5280 Jul 27 j 07:13	23° $\mathbb{M}$ 11'17	8.03076 AU
minimum elong	-5286 Nov 11 j 20:27	11° $\underline{\Omega}$ 54'20	1°29'37	direct	-5280 Oct 01 j 14:19	19° $\mathbb{M}$ 45'42	
max. Earth dist.	-5286 Nov 11 j 02:14	11° $\underline{\Omega}$ 48'50	10.84829 AU	evening set	-5279 Jan 11 j 03:17	27° $\mathbb{M}$ 49'10	
morning rise	-5286 Nov 28 j 12:42	13° $\underline{\Omega}$ 54'23			-5279 Jan 27 j 18:22	0° $\mathbb{M}$	
retrograde	-5285 Mar 12 j 08:09	21° $\underline{\Omega}$ 18'37		conjunction	-5279 Jan 28 j 17:53	0° $\mathbb{M}$ 07'46	-1°-33'-6
opposition	-5285 May 22 j 03:05	17° $\underline{\Omega}$ 56'42	1°34'33	minimum elong	-5279 Jan 28 j 17:49	0° $\mathbb{M}$ 07'45	1°33'25
min. Earth dist.	-5285 May 22 j 18:08	17° $\underline{\Omega}$ 53'52	8.77618 AU	max. Earth dist.	-5279 Jan 28 j 20:48	0° $\mathbb{M}$ 08'44	9.97530 AU
direct	-5285 Jul 30 j 11:06	14° $\underline{\Omega}$ 37'25		morning rise	-5279 Feb 15 j 13:29	2° $\mathbb{M}$ 28'02	
evening set	-5285 Nov 07 j 03:56	21° $\underline{\Omega}$ 50'33		retrograde	-5279 Jun 03 j 18:30	11° $\mathbb{M}$ 02'21	
conjunction	-5285 Nov 23 j 21:06	23° $\underline{\Omega}$ 52'36	1°03'47	opposition	-5279 Aug 10 j 21:19	7° $\mathbb{M}$ 30'28	-2°-13'-15
minimum elong	-5285 Nov 23 j 21:09	23° $\underline{\Omega}$ 52'36	1°03'41	min. Earth dist.	-5279 Aug 10 j 16:42	7° $\mathbb{M}$ 31'25	7.92825 AU
max. Earth dist.	-5285 Nov 23 j 04:11	23° $\underline{\Omega}$ 47'25	10.70149 AU	direct	-5279 Oct 15 j 19:13	4° $\mathbb{M}$ 03'33	
morning rise	-5285 Dec 10 j 17:48	25° $\underline{\Omega}$ 55'50		evening set	-5278 Jan 26 j 04:39	12° $\mathbb{M}$ 16'57	
	-5284 Jan 16 j 17:40	0° $\mathbb{M}$		conjunction	-5278 Feb 12 j 22:53	14° $\mathbb{M}$ 37'58	-1°-57'-30

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 11

Attention, astronomical year style is used: The year -5278 in astronomical counting style is the year 5279 BCE in historical counting style.

minimum elong	-5278 Feb 12 j 22:50	14° $\overline{3}$ 37'57	1°57'49	retrograde	-5272 Sep 12 j 19:07	22° $\overline{Y}$ 33'03	
max. Earth dist.	-5278 Feb 13 j 06:43	14° $\overline{3}$ 40'35	9.88785 AU	opposition	-5272 Nov 18 j 08:35	19° $\overline{Y}$ 07'12	-1°-32'-3
morning rise	-5278 Mar 02 j 21:38	17° $\overline{3}$ 00'28		min. Earth dist.	-5272 Nov 17 j 17:14	19° $\overline{Y}$ 10'20	8.23014 AU
retrograde	-5278 Jun 19 j 02:25	25° $\overline{3}$ 40'33		direct	-5271 Jan 25 j 12:29	15° $\overline{Y}$ 38'03	
opposition	-5278 Aug 25 j 15:36	22° $\overline{3}$ 08'06	-2°-39'-42	evening set	-5271 May 11 j 20:54	23° $\overline{Y}$ 41'37	
min. Earth dist.	-5278 Aug 25 j 07:21	22° $\overline{3}$ 09'50	7.85909 AU				
direct	-5278 Oct 30 j 08:18	18° $\overline{3}$ 39'55		conjunction	-5271 May 29 j 21:04	25° $\overline{Y}$ 56'55	0°-58'-51
evening set	-5277 Feb 10 j 15:59	27° $\overline{3}$ 01'18		minimum elong	-5271 May 29 j 21:07	25° $\overline{Y}$ 56'56	0°58'45
				max. Earth dist.	-5271 May 30 j 15:57	26° $\overline{Y}$ 02'52	10.30674 AU
conjunction	-5277 Feb 28 j 13:24	29° $\overline{3}$ 24'01	-2°-14'-40	morning rise	-5271 Jun 16 j 17:05	28° $\overline{Y}$ 10'53	
minimum elong	-5277 Feb 28 j 13:22	29° $\overline{3}$ 24'00	2°14'57		-5271 Jul 01 j 20:18	0° $\overline{8}$	
max. Earth dist.	-5277 Mar 01 j 01:38	29° $\overline{3}$ 28'06	9.83667 AU	retrograde	-5271 Sep 25 j 23:13	5° $\overline{8}$ 50'56	
	-5277 Mar 05 j 01:02	0° $\approx$		opposition	-5271 Dec 01 j 18:26	2° $\overline{8}$ 27'08	0°-53'-58
morning rise	-5277 Mar 18 j 14:32	1° $\approx$ 47'54		min. Earth dist.	-5271 Dec 01 j 05:13	2° $\overline{8}$ 29'47	8.38433 AU
retrograde	-5277 Jul 04 j 10:45	10° $\approx$ 29'38			-5270 Jan 04 j 21:06	30° $\overline{R}$ $\overline{Y}$	
opposition	-5277 Sep 09 j 11:58	6° $\approx$ 57'08	-2°-55'-54	direct	-5270 Feb 08 j 15:41	28° $\overline{Y}$ 58'58	
min. Earth dist.	-5277 Sep 09 j 00:55	6° $\approx$ 59'28	7.82815 AU		-5270 Mar 15 j 09:07	0° $\overline{8}$	
direct	-5277 Nov 14 j 04:15	3° $\approx$ 27'53		evening set	-5270 May 25 j 20:58	6° $\overline{8}$ 52'03	
evening set	-5276 Feb 26 j 09:36	11° $\approx$ 54'25					
				conjunction	-5270 Jun 12 j 17:42	9° $\overline{8}$ 04'00	0°-27'-26
conjunction	-5276 Mar 15 j 09:37	14° $\approx$ 17'58	-2°-23'-1	minimum elong	-5270 Jun 12 j 17:44	9° $\overline{8}$ 04'01	0°27'16
minimum elong	-5276 Mar 15 j 09:36	14° $\approx$ 17'58	2°23'16	max. Earth dist.	-5270 Jun 13 j 09:15	9° $\overline{8}$ 08'49	10.46522 AU
max. Earth dist.	-5276 Mar 16 j 01:37	14° $\approx$ 23'19	9.82555 AU	morning rise	-5270 Jun 30 j 09:36	11° $\overline{8}$ 14'28	
	-5276 Mar 20 j 15:24	15° $\approx$			-5270 Aug 02 j 20:14	15° $\overline{8}$	
morning rise	-5276 Apr 02 j 12:14	16° $\approx$ 42'17		retrograde	-5270 Oct 08 j 14:40	18° $\overline{8}$ 41'11	
retrograde	-5276 Jul 18 j 15:50	25° $\approx$ 21'10		opposition	-5270 Dec 14 j 19:20	15° $\overline{8}$ 19'22	0°-14'-32
opposition	-5276 Sep 23 j 07:37	21° $\approx$ 49'11	-3°00'-20	min. Earth dist.	-5270 Dec 14 j 09:11	15° $\overline{8}$ 21'22	8.54417 AU
min. Earth dist.	-5276 Sep 22 j 18:21	21° $\approx$ 51'59	7.83777 AU		-5270 Dec 18 j 21:32	15° $\overline{R}$ $\overline{8}$	
direct	-5276 Nov 28 j 05:14	18° $\approx$ 19'11		direct	-5269 Feb 22 j 10:12	11° $\overline{8}$ 52'22	
evening set	-5275 Mar 13 j 04:57	26° $\approx$ 47'24			-5269 Apr 26 j 19:00	15° $\overline{8}$	
				asc. node	-5269 May 04 j 08:42	15° $\overline{8}$ 43'00	
conjunction	-5275 Mar 31 j 06:57	29° $\approx$ 10'53	-2°-21'-52	evening set	-5269 Jun 08 j 08:06	19° $\overline{8}$ 34'49	
minimum elong	-5275 Mar 31 j 06:59	29° $\approx$ 10'53	2°22'04				
max. Earth dist.	-5275 Apr 01 j 01:49	29° $\approx$ 17'10	9.85559 AU	conjunction	-5269 Jun 26 j 00:29	21° $\overline{8}$ 43'18	0°04'26
	-5275 Apr 06 j 10:41	0° $\overline{X}$		minimum elong	-5269 Jun 26 j 00:28	21° $\overline{8}$ 43'18	0°04'40
morning rise	-5275 Apr 18 j 10:14	1° $\overline{X}$ 34'40		behind sun begin	-5269 Jun 25 j 17:26	21° $\overline{8}$ 41'11	
retrograde	-5275 Aug 02 j 13:37	10° $\overline{X}$ 06'28		behind sun end	-5269 Jun 26 j 07:31	21° $\overline{8}$ 45'25	
opposition	-5275 Oct 07 j 23:56	6° $\overline{X}$ 35'30	-2°-52'-43	max. Earth dist.	-5269 Jun 26 j 11:24	21° $\overline{8}$ 46'37	10.62470 AU
min. Earth dist.	-5275 Oct 07 j 09:05	6° $\overline{X}$ 38'37	7.88746 AU	morning rise	-5269 Jul 13 j 11:45	23° $\overline{8}$ 50'13	
direct	-5275 Dec 13 j 07:34	3° $\overline{X}$ 05'07			-5269 Sep 15 j 16:15	0° $\overline{II}$	
evening set	-5274 Mar 28 j 21:37	11° $\overline{X}$ 31'23		retrograde	-5269 Oct 20 j 21:11	1° $\overline{II}$ 05'05	
					-5269 Nov 25 j 16:46	30° $\overline{R}$ $\overline{8}$	
conjunction	-5274 Apr 16 j 00:50	13° $\overline{X}$ 53'55	-2°-11'-28	opposition	-5269 Dec 27 j 12:03	27° $\overline{8}$ 45'04	0°24'07
minimum elong	-5274 Apr 16 j 00:53	13° $\overline{X}$ 53'56	2°11'35	min. Earth dist.	-5269 Dec 27 j 04:45	27° $\overline{8}$ 46'28	8.70118 AU
max. Earth dist.	-5274 Apr 16 j 21:23	14° $\overline{X}$ 00'42	9.92469 AU	direct	-5268 Mar 06 j 18:43	24° $\overline{8}$ 19'20	
morning rise	-5274 May 04 j 03:53	16° $\overline{X}$ 16'17			-5268 Jun 03 j 23:53	0° $\overline{II}$	
retrograde	-5274 Aug 17 j 01:37	24° $\overline{X}$ 37'30		evening set	-5268 Jun 20 j 06:32	1° $\overline{II}$ 51'33	
opposition	-5274 Oct 22 j 10:37	21° $\overline{X}$ 07'57	-2°-34'-3				
min. Earth dist.	-5274 Oct 21 j 18:42	21° $\overline{X}$ 11'16	7.97365 AU	conjunction	-5268 Jul 07 j 18:03	3° $\overline{II}$ 56'39	0°35'02
direct	-5274 Dec 28 j 07:30	17° $\overline{X}$ 37'37		minimum elong	-5268 Jul 07 j 18:01	3° $\overline{II}$ 56'39	0°35'18
evening set	-5273 Apr 13 j 07:50	25° $\overline{X}$ 58'39		max. Earth dist.	-5268 Jul 08 j 00:26	3° $\overline{II}$ 58'34	10.77697 AU
				morning rise	-5268 Jul 25 j 00:22	6° $\overline{II}$ 00'11	
conjunction	-5273 May 01 j 11:13	28° $\overline{X}$ 19'25	-1°-52'-56	retrograde	-5268 Oct 31 j 19:25	13° $\overline{II}$ 05'02	
minimum elong	-5273 May 01 j 11:17	28° $\overline{X}$ 19'26	1°52'58	opposition	-5267 Jan 07 j 21:14	9° $\overline{II}$ 46'35	1°00'22
max. Earth dist.	-5273 May 02 j 08:19	28° $\overline{X}$ 26'17	10.02783 AU	min. Earth dist.	-5267 Jan 07 j 16:49	9° $\overline{II}$ 47'26	8.84736 AU
	-5273 May 14 j 09:24	0° $\overline{Y}$		direct	-5267 Mar 19 j 17:19	6° $\overline{II}$ 22'10	
morning rise	-5273 May 19 j 12:56	0° $\overline{Y}$ 39'33		evening set	-5267 Jul 02 j 17:42	13° $\overline{II}$ 45'07	
retrograde	-5273 Aug 31 j 03:24	8° $\overline{Y}$ 47'48					
opposition	-5273 Nov 05 j 13:47	5° $\overline{Y}$ 20'01	-2°-6'-19	conjunction	-5267 Jul 20 j 00:13	15° $\overline{II}$ 47'06	1°03'20
min. Earth dist.	-5273 Nov 04 j 21:33	5° $\overline{Y}$ 23'22	8.09039 AU	minimum elong	-5267 Jul 20 j 00:10	15° $\overline{II}$ 47'06	1°03'36
direct	-5272 Jan 12 j 02:01	1° $\overline{Y}$ 50'06		max. Earth dist.	-5267 Jul 20 j 02:39	15° $\overline{II}$ 47'50	10.91467 AU
evening set	-5272 Apr 27 j 08:18	10° $\overline{Y}$ 03'18		morning rise	-5267 Aug 06 j 01:25	17° $\overline{II}$ 47'34	
				retrograde	-5267 Nov 12 j 11:55	24° $\overline{II}$ 44'28	
conjunction	-5272 May 15 j 10:42	12° $\overline{Y}$ 21'36	-1°-28'-2	opposition	-5266 Jan 20 j 00:07	21° $\overline{II}$ 27'20	1°32'59
minimum elong	-5272 May 15 j 10:45	12° $\overline{Y}$ 21'37	1°28'01	min. Earth dist.	-5266 Jan 19 j 23:05	21° $\overline{II}$ 27'32	8.97617 AU
max. Earth dist.	-5272 May 16 j 07:22	12° $\overline{Y}$ 28'13	10.15796 AU	direct	-5266 Apr 01 j 07:38	18° $\overline{II}$ 04'12	
morning rise	-5272 Jun 02 j 10:01	14° $\overline{Y}$ 38'51		evening set	-5266 Jul 14 j 19:02	25° $\overline{II}$ 19'09	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 12

Attention, astronomical year style is used: The year -5266 in astronomical counting style is the year 5267 BCE in historical counting style.

conjunction	-5266 Jul 31 j 20:29	27°II18'22	1°28'21			-5260 Sep 06 j 00:23	0°൬	
minimum elong	-5266 Jul 31 j 20:26	27°II18'21	1°28'38	evening set		-5260 Sep 18 j 00:42	1°൬20'20	
max. Earth dist.	-5266 Jul 31 j 19:10	27°II17'59	11.03244 AU					
morning rise	-5266 Aug 17 j 16:48	29°II16'10		conjunction		-5260 Oct 04 j 08:39	3°൬13'36	2°22'26
	-5266 Aug 24 j 03:07	0°☾		minimum elong		-5260 Oct 04 j 08:40	3°൬13'36	2°22'34
retrograde	-5266 Nov 24 j 00:12	6°☾07'10		max. Earth dist.		-5260 Oct 03 j 14:13	3°൬08'14	11.18495 AU
opposition	-5265 Jan 31 j 22:27	2°☾51'04	2°01'03	morning rise		-5260 Oct 20 j 16:13	5°൬06'49	
min. Earth dist.	-5265 Feb 01 j 01:31	2°☾50'30	9.08331 AU	retrograde		-5259 Jan 29 j 06:50	12°൬01'35	
	-5265 Mar 18 j 19:34	30°RII		opposition		-5259 Apr 10 j 05:40	8°൬44'14	2°48'51
direct	-5265 Apr 13 j 12:53	29°II29'08		min. Earth dist.		-5259 Apr 10 j 22:02	8°൬41'15	9.15365 AU
	-5265 May 09 j 03:04	0°☾		direct		-5259 Jun 20 j 11:07	5°൬25'43	
evening set	-5265 Jul 26 j 11:51	6°☾37'18		evening set		-5259 Sep 29 j 00:59	12°൬22'05	
conjunction	-5265 Aug 12 j 08:23	8°☾34'11	1°49'25	conjunction		-5259 Oct 15 j 09:29	14°൬16'24	2°13'22
minimum elong	-5265 Aug 12 j 08:20	8°☾34'11	1°49'42	minimum elong		-5259 Oct 15 j 09:32	14°൬16'25	2°13'28
max. Earth dist.	-5265 Aug 12 j 02:28	8°☾32'28	11.12686 AU	max. Earth dist.		-5259 Oct 14 j 15:08	14°൬11'01	11.11200 AU
morning rise	-5265 Aug 29 j 00:28	10°☾29'50		morning rise		-5259 Oct 31 j 18:18	16°൬10'56	
retrograde	-5265 Dec 05 j 06:47	17°☾16'54		retrograde		-5258 Feb 10 j 05:22	23°൬12'24	
opposition	-5264 Feb 12 j 17:14	14°☾01'28	2°23'57	opposition		-5258 Apr 22 j 05:39	19°൬53'51	2°34'49
min. Earth dist.	-5264 Feb 12 j 23:48	14°☾00'15	9.16577 AU	min. Earth dist.		-5258 Apr 22 j 21:49	19°൬50'52	9.06739 AU
direct	-5264 Apr 24 j 12:48	10°☾40'33		direct		-5258 Jul 01 j 23:43	16°൬35'15	
evening set	-5264 Aug 05 j 21:47	17°☾43'19		evening set		-5258 Oct 10 j 04:56	23°൬34'42	
conjunction	-5264 Aug 22 j 14:02	19°☾38'21	2°06'01	conjunction		-5258 Oct 26 j 14:52	25°൬30'39	1°59'04
minimum elong	-5264 Aug 22 j 14:00	19°☾38'20	2°06'19	minimum elong		-5258 Oct 26 j 14:55	25°൬30'40	1°59'08
max. Earth dist.	-5264 Aug 22 j 04:15	19°☾35'30	11.19545 AU	max. Earth dist.		-5258 Oct 25 j 20:13	25°൬25'08	11.01419 AU
morning rise	-5264 Sep 08 j 02:37	21°☾32'20		morning rise		-5258 Nov 12 j 02:05	27°൬27'06	
retrograde	-5264 Dec 15 j 13:46	28°☾17'22				-5258 Dec 05 j 01:44	0°☾	
opposition	-5263 Feb 23 j 09:27	25°☾02'12	2°41'13	retrograde		-5257 Feb 22 j 10:44	4°☾36'54	
min. Earth dist.	-5263 Feb 23 j 18:28	25°☾00'33	9.22118 AU	opposition		-5257 May 04 j 11:04	1°☾16'55	2°14'28
direct	-5263 May 06 j 08:53	21°☾42'10		min. Earth dist.		-5257 May 05 j 03:08	1°☾13'56	8.95765 AU
evening set	-5263 Aug 17 j 02:18	28°☾40'50				-5257 May 22 j 04:46	30°R൬	
	-5263 Aug 28 j 15:29	0°☾		direct		-5257 Jul 13 j 15:44	27°൬58'01	
conjunction	-5263 Sep 02 j 15:12	0°☾34'34	2°17'50			-5257 Sep 01 j 20:38	0°☾	
minimum elong	-5263 Sep 02 j 15:10	0°☾34'33	2°18'07	evening set		-5257 Oct 21 j 14:24	5°☾02'06	
max. Earth dist.	-5263 Sep 02 j 03:11	0°☾31'05	11.23621 AU	max. Earth dist.		-5257 Nov 06 j 07:39	6°☾54'31	10.89479 AU
morning rise	-5263 Sep 19 j 00:55	2°☾27'27		conjunction		-5257 Nov 07 j 02:38	7°☾00'13	1°39'44
retrograde	-5263 Dec 26 j 20:28	9°☾12'16		minimum elong		-5257 Nov 07 j 02:41	7°☾00'14	1°39'44
opposition	-5262 Mar 07 j 00:48	5°☾57'02	2°52'32	morning rise		-5257 Nov 23 j 17:21	8°☾59'09	
min. Earth dist.	-5262 Mar 07 j 11:54	5°☾55'01	9.24786 AU	retrograde		-5256 Mar 06 j 01:08	16°☾18'46	
direct	-5262 May 17 j 23:21	2°☾37'41		opposition		-5256 May 15 j 22:53	12°☾57'12	1°48'05
evening set	-5262 Aug 28 j 03:07	9°☾33'37		min. Earth dist.		-5256 May 16 j 14:42	12°☾54'14	8.82821 AU
conjunction	-5262 Sep 13 j 13:24	11°☾26'36	2°24'36	direct		-5256 Jul 24 j 13:01	9°☾37'48	
minimum elong	-5262 Sep 13 j 13:23	11°☾26'35	2°24'51	evening set		-5256 Nov 01 j 07:27	16°☾48'01	
max. Earth dist.	-5262 Sep 12 j 23:10	11°☾22'29	11.24797 AU	conjunction		-5256 Nov 17 j 22:54	18°☾48'48	1°15'45
morning rise	-5262 Sep 29 j 21:13	13°☾18'59		minimum elong		-5256 Nov 17 j 22:57	18°☾48'49	1°15'40
	-5262 Oct 15 j 04:59	15°☾		max. Earth dist.		-5256 Nov 17 j 05:27	18°☾43'29	10.75792 AU
retrograde	-5261 Jan 07 j 05:21	20°☾05'23		morning rise		-5256 Dec 04 j 17:43	20°☾50'41	
opposition	-5261 Mar 18 j 16:34	16°☾49'45	2°57'40	retrograde		-5255 Mar 19 j 00:11	28°☾21'26	
min. Earth dist.	-5261 Mar 19 j 06:14	16°☾47'16	9.24521 AU	opposition		-5255 May 28 j 17:53	24°☾58'10	1°16'10
	-5261 Apr 14 j 07:37	15°R☾		min. Earth dist.		-5255 May 29 j 07:59	24°☾55'30	8.68392 AU
direct	-5261 May 29 j 11:36	13°☾30'52		direct		-5255 Aug 05 j 16:23	21°☾38'06	
	-5261 Jul 12 j 09:20	15°☾		evening set		-5255 Nov 13 j 10:00	28°☾55'56	
evening set	-5261 Sep 08 j 02:05	20°☾25'29				-5255 Nov 22 j 03:49	0°M☾	
conjunction	-5261 Sep 24 j 10:36	22°☾18'19	2°26'10	conjunction		-5255 Nov 30 j 05:23	0°M☾59'48	0°47'43
minimum elong	-5261 Sep 24 j 10:36	22°☾18'19	2°26'22	minimum elong		-5255 Nov 30 j 05:25	0°M☾59'49	0°47'35
max. Earth dist.	-5261 Sep 23 j 17:37	22°☾13'24	11.23068 AU	max. Earth dist.		-5255 Nov 29 j 14:46	0°M☾55'17	10.60893 AU
morning rise	-5261 Oct 10 j 17:47	24°☾10'49		morning rise		-5255 Dec 17 j 04:43	3°M☾05'00	
	-5261 Dec 14 j 02:03	0°൬		retrograde		-5254 Apr 01 j 11:14	10°M☾47'59	
retrograde	-5260 Jan 18 j 14:51	1°൬00'31		opposition		-5254 Jun 10 j 21:12	7°M☾22'56	0°39'38
	-5260 Feb 24 j 01:10	30°R☾		min. Earth dist.		-5254 Jun 11 j 08:18	7°M☾20'48	8.53086 AU
opposition	-5260 Mar 29 j 09:46	27°☾44'11	2°56'28	direct		-5254 Aug 18 j 04:37	4°M☾02'01	
min. Earth dist.	-5260 Mar 30 j 01:34	27°☾41'18	9.21352 AU	evening set		-5254 Nov 25 j 23:55	11°M☾28'47	
direct	-5260 Jun 08 j 22:12	24°☾25'34						

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 13

Attention, astronomical year style is used: The year -5254 in astronomical counting style is the year 5255 BCE in historical counting style.

conjunction	-5254 Dec 12 j 23:34	13° $\mathbb{M}$ 36'01	0°16'36	evening set	-5247 Feb 18 j 21:13	5° $\approx$ 38'03	
minimum elong	-5254 Dec 12 j 23:34	13° $\mathbb{M}$ 36'01	0°16'24				
max. Earth dist.	-5254 Dec 12 j 12:07	13° $\mathbb{M}$ 32'26	10.45434 AU	conjunction	-5247 Mar 08 j 20:09	8° $\approx$ 01'08	-2°-20'-23
	-5254 Dec 24 j 03:19	15° $\mathbb{M}$		minimum elong	-5247 Mar 08 j 20:08	8° $\approx$ 01'08	2°20'39
morning rise	-5254 Dec 30 j 03:47	15° $\mathbb{M}$ 44'47		max. Earth dist.	-5247 Mar 09 j 10:51	8° $\approx$ 06'03	9.84037 AU
retrograde	-5253 Apr 15 j 10:11	23° $\mathbb{M}$ 40'34		morning rise	-5247 Mar 26 j 22:00	10° $\approx$ 25'11	
desc. node	-5253 Jun 22 j 02:32	20° $\mathbb{M}$ 24'28			-5247 May 03 j 20:45	15° $\approx$	
opposition	-5253 Jun 24 j 09:05	20° $\mathbb{M}$ 13'48	0°00'-14	retrograde	-5247 Jul 12 j 09:59	19° $\approx$ 05'29	
min. Earth dist.	-5253 Jun 24 j 16:45	20° $\mathbb{M}$ 12'18	8.37612 AU	opposition	-5247 Sep 17 j 05:55	15° $\approx$ 33'49	-2°-59'-40
direct	-5253 Aug 30 j 23:25	16° $\mathbb{M}$ 51'52		min. Earth dist.	-5247 Sep 16 j 17:28	15° $\approx$ 36'26	7.84197 AU
evening set	-5253 Dec 09 j 02:59	24° $\mathbb{M}$ 28'43			-5247 Sep 23 j 23:49	15° $\mathbb{R}$ $\approx$	
				direct	-5247 Nov 22 j 00:36	12° $\approx$ 04'44	
conjunction	-5253 Dec 26 j 06:59	26° $\mathbb{M}$ 39'24	0°-16'-24		-5246 Jan 18 j 01:55	15° $\approx$	
minimum elong	-5253 Dec 26 j 06:58	26° $\mathbb{M}$ 39'24	0°16'39	evening set	-5246 Mar 06 j 16:22	20° $\approx$ 32'13	
max. Earth dist.	-5253 Dec 25 j 22:36	26° $\mathbb{M}$ 36'44	10.30165 AU				
morning rise	-5252 Jan 12 j 16:12	28° $\mathbb{M}$ 51'49		conjunction	-5246 Mar 24 j 17:40	22° $\approx$ 55'43	-2°-23'-25
	-5252 Jan 21 j 21:18	0° $\mathbb{X}$		minimum elong	-5246 Mar 24 j 17:41	22° $\approx$ 55'43	2°23'38
retrograde	-5252 Apr 28 j 19:09	7° $\mathbb{X}$ 00'20		max. Earth dist.	-5246 Mar 25 j 11:38	23° $\approx$ 01'42	9.84896 AU
opposition	-5252 Jul 07 j 05:26	3° $\mathbb{X}$ 31'58	0°-41'-36	morning rise	-5246 Apr 11 j 20:34	25° $\approx$ 19'44	
min. Earth dist.	-5252 Jul 07 j 09:53	3° $\mathbb{X}$ 31'05	8.22764 AU		-5246 May 20 j 19:25	0° $\mathbb{H}$	
direct	-5252 Sep 12 j 03:52	0° $\mathbb{X}$ 08'51		retrograde	-5246 Jul 27 j 12:10	3° $\mathbb{H}$ 55'00	
evening set	-5252 Dec 21 j 19:56	7° $\mathbb{X}$ 56'34		min. Earth dist.	-5246 Oct 01 j 09:45	0° $\mathbb{H}$ 27'02	7.87028 AU
				opposition	-5246 Oct 02 j 00:04	0° $\mathbb{H}$ 24'01	-2°-57'-18
conjunction	-5251 Jan 08 j 04:17	10° $\mathbb{X}$ 10'38	0°-49'-26		-5246 Oct 06 j 18:46	30° $\mathbb{R}$ $\approx$	
minimum elong	-5251 Jan 08 j 04:14	10° $\mathbb{X}$ 10'37	0°49'44	direct	-5246 Dec 07 j 02:02	26° $\approx$ 54'16	
max. Earth dist.	-5251 Jan 07 j 23:52	10° $\mathbb{X}$ 09'12	10.15905 AU		-5245 Feb 04 j 08:27	0° $\mathbb{H}$	
morning rise	-5251 Jan 25 j 18:12	12° $\mathbb{X}$ 26'31		evening set	-5245 Mar 22 j 11:09	5° $\mathbb{H}$ 21'40	
retrograde	-5251 May 13 j 12:36	20° $\mathbb{X}$ 46'54					
opposition	-5251 Jul 21 j 10:02	17° $\mathbb{X}$ 17'10	-1°-22'-4	conjunction	-5245 Apr 09 j 14:01	7° $\mathbb{H}$ 44'41	-2°-16'-59
min. Earth dist.	-5251 Jul 21 j 11:03	17° $\mathbb{X}$ 16'58	8.09381 AU	minimum elong	-5245 Apr 09 j 14:04	7° $\mathbb{H}$ 44'42	2°17'08
direct	-5251 Sep 25 j 20:13	13° $\mathbb{X}$ 52'47		max. Earth dist.	-5245 Apr 10 j 10:03	7° $\mathbb{H}$ 51'18	9.89699 AU
evening set	-5250 Jan 05 j 02:45	21° $\mathbb{X}$ 51'24		morning rise	-5245 Apr 27 j 17:07	10° $\mathbb{H}$ 07'43	
				retrograde	-5245 Aug 11 j 05:40	18° $\mathbb{H}$ 34'00	
conjunction	-5250 Jan 22 j 15:20	24° $\mathbb{X}$ 08'36	-1°-20'-34	opposition	-5245 Oct 16 j 13:49	15° $\mathbb{H}$ 04'08	-2°-43'-19
minimum elong	-5250 Jan 22 j 15:17	24° $\mathbb{X}$ 08'35	1°20'53	min. Earth dist.	-5245 Oct 15 j 22:42	15° $\mathbb{H}$ 07'18	7.93655 AU
max. Earth dist.	-5250 Jan 22 j 15:49	24° $\mathbb{X}$ 08'46	10.03491 AU	direct	-5245 Dec 22 j 03:00	11° $\mathbb{H}$ 34'04	
morning rise	-5250 Feb 09 j 09:24	26° $\mathbb{X}$ 27'34		evening set	-5244 Apr 06 j 00:59	19° $\mathbb{H}$ 57'47	
	-5250 Mar 10 j 12:47	0° $\mathbb{Z}$					
retrograde	-5250 May 28 j 12:58	4° $\mathbb{Z}$ 57'59		conjunction	-5244 Apr 24 j 04:24	22° $\mathbb{H}$ 19'25	-2°-1'-50
opposition	-5250 Aug 04 j 21:33	1° $\mathbb{Z}$ 27'08	-1°-58'-52	minimum elong	-5244 Apr 24 j 04:28	22° $\mathbb{H}$ 19'26	2°01'55
min. Earth dist.	-5250 Aug 04 j 18:55	1° $\mathbb{Z}$ 27'41	7.98265 AU	max. Earth dist.	-5244 Apr 25 j 01:04	22° $\mathbb{H}$ 26'11	9.98143 AU
	-5250 Aug 23 j 05:07	30° $\mathbb{R}$ $\mathbb{X}$		morning rise	-5244 May 12 j 06:43	24° $\mathbb{H}$ 40'36	
direct	-5250 Oct 09 j 22:19	28° $\mathbb{X}$ 01'26			-5244 Jun 27 j 21:16	0° $\mathbb{Y}$	
	-5250 Nov 25 j 04:47	0° $\mathbb{Z}$		retrograde	-5244 Aug 24 j 12:54	2° $\mathbb{Y}$ 54'58	
evening set	-5249 Jan 19 j 22:57	6° $\mathbb{Z}$ 10'18			-5244 Oct 23 j 02:54	30° $\mathbb{R}$ $\mathbb{H}$	
				opposition	-5244 Oct 29 j 20:54	29° $\mathbb{H}$ 26'32	-2°-19'-18
conjunction	-5249 Feb 06 j 15:28	8° $\mathbb{Z}$ 30'09	-1°-47'-30	min. Earth dist.	-5244 Oct 29 j 05:59	29° $\mathbb{H}$ 29'38	8.03638 AU
minimum elong	-5249 Feb 06 j 15:24	8° $\mathbb{Z}$ 30'08	1°47'48	direct	-5243 Jan 05 j 00:38	25° $\mathbb{H}$ 56'30	
max. Earth dist.	-5249 Feb 06 j 21:10	8° $\mathbb{Z}$ 32'03	9.93684 AU		-5243 Mar 16 j 04:57	0° $\mathbb{Y}$	
morning rise	-5249 Feb 24 j 12:55	10° $\mathbb{Z}$ 51'36		evening set	-5243 Apr 21 j 06:19	4° $\mathbb{Y}$ 13'32	
retrograde	-5249 Jun 12 j 18:53	19° $\mathbb{Z}$ 29'06					
opposition	-5249 Aug 19 j 14:04	15° $\mathbb{Z}$ 57'31	-2°-29'-3	conjunction	-5243 May 09 j 09:12	6° $\mathbb{Y}$ 33'01	-1°-39'-30
min. Earth dist.	-5249 Aug 19 j 07:50	15° $\mathbb{Z}$ 58'48	7.90080 AU	minimum elong	-5243 May 09 j 09:16	6° $\mathbb{Y}$ 33'02	1°39'30
direct	-5249 Oct 24 j 08:40	12° $\mathbb{Z}$ 30'30		max. Earth dist.	-5243 May 10 j 04:53	6° $\mathbb{Y}$ 39'22	10.09645 AU
evening set	-5248 Feb 04 j 06:13	20° $\mathbb{Z}$ 48'06		morning rise	-5243 May 27 j 09:47	8° $\mathbb{Y}$ 51'39	
				retrograde	-5243 Sep 07 j 08:41	16° $\mathbb{Y}$ 52'18	
conjunction	-5248 Feb 22 j 02:13	23° $\mathbb{Z}$ 09'57	-2°-8'-3	opposition	-5243 Nov 12 j 19:40	13° $\mathbb{Y}$ 25'34	-1°-47'-35
minimum elong	-5248 Feb 22 j 02:10	23° $\mathbb{Z}$ 09'56	2°08'20	min. Earth dist.	-5243 Nov 12 j 05:28	13° $\mathbb{Y}$ 28'28	8.16301 AU
max. Earth dist.	-5248 Feb 22 j 12:47	23° $\mathbb{Z}$ 13'28	9.87067 AU	direct	-5242 Jan 19 j 16:14	9° $\mathbb{Y}$ 55'54	
morning rise	-5248 Mar 11 j 02:15	25° $\mathbb{Z}$ 33'06		evening set	-5242 May 06 j 00:36	18° $\mathbb{Y}$ 04'04	
	-5248 Apr 16 j 21:16	0° $\approx$					
retrograde	-5248 Jun 27 j 02:59	4° $\approx$ 14'03		conjunction	-5242 May 24 j 01:49	20° $\mathbb{Y}$ 20'48	-1°-11'-57
opposition	-5248 Sep 02 j 09:40	0° $\approx$ 42'10	-2°-49'-58	minimum elong	-5242 May 24 j 01:53	20° $\mathbb{Y}$ 20'49	1°11'53
min. Earth dist.	-5248 Sep 02 j 00:02	0° $\approx$ 44'11	7.85281 AU	max. Earth dist.	-5242 May 24 j 19:30	20° $\mathbb{Y}$ 26'25	10.23420 AU
	-5248 Sep 10 j 20:57	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-5242 Jun 10 j 23:38	22° $\mathbb{Y}$ 36'21	
direct	-5248 Nov 07 j 02:03	27° $\mathbb{Z}$ 14'00			-5242 Aug 31 j 10:44	0° $\mathbb{Z}$	
	-5247 Jan 01 j 06:49	0° $\approx$		retrograde	-5242 Sep 20 j 16:23	0° $\mathbb{Z}$ 22'46	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 14

Attention, astronomical year style is used: The year -5242 in astronomical counting style is the year 5243 BCE in historical counting style.

	-5242 Oct 11 j 00:44	30° $\mathbb{R}$ $\Upsilon$		max. Earth dist.	-5236 Aug 06 j 15:58	3° $\mathbb{G}$ 55'03	11.08241 AU
opposition	-5242 Nov 26 j 09:34	26° $\Upsilon$ 57'51	-1°-10'-52	morning rise	-5236 Aug 23 j 12:49	5° $\mathbb{G}$ 52'26	
min. Earth dist.	-5242 Nov 25 j 20:25	27° $\Upsilon$ 00'30	8.30815 AU	retrograde	-5236 Nov 29 j 17:50	12° $\mathbb{G}$ 40'51	
direct	-5241 Feb 03 j 00:44	23° $\Upsilon$ 28'54		opposition	-5235 Feb 06 j 23:51	9° $\mathbb{G}$ 24'47	2°14'35
	-5241 May 08 j 04:42	0° $\mathbb{X}$		min. Earth dist.	-5235 Feb 07 j 02:51	9° $\mathbb{G}$ 24'14	9.12942 AU
evening set	-5241 May 20 j 06:18	1° $\mathbb{X}$ 26'54		direct	-5235 Apr 19 j 18:52	6° $\mathbb{G}$ 03'10	
				evening set	-5235 Aug 01 j 08:23	13° $\mathbb{G}$ 07'54	
conjunction	-5241 Jun 07 j 04:41	3° $\mathbb{X}$ 40'26	0°-41'-17				
minimum elong	-5241 Jun 07 j 04:43	3° $\mathbb{X}$ 40'27	0°41'08	conjunction	-5235 Aug 18 j 02:40	15° $\mathbb{G}$ 03'40	1°59'17
max. Earth dist.	-5241 Jun 07 j 20:00	3° $\mathbb{X}$ 45'13	10.38590 AU	minimum elong	-5235 Aug 18 j 02:38	15° $\mathbb{G}$ 03'39	1°59'34
morning rise	-5241 Jun 24 j 22:42	5° $\mathbb{X}$ 52'34		max. Earth dist.	-5235 Aug 17 j 20:53	15° $\mathbb{G}$ 01'59	11.16830 AU
retrograde	-5241 Oct 03 j 12:41	13° $\mathbb{X}$ 25'17		morning rise	-5235 Sep 03 j 16:37	16° $\mathbb{G}$ 58'16	
opposition	-5241 Dec 09 j 14:21	10° $\mathbb{X}$ 02'11	0°-31'-45	retrograde	-5235 Dec 11 j 01:41	23° $\mathbb{G}$ 43'37	
min. Earth dist.	-5241 Dec 09 j 02:45	10° $\mathbb{X}$ 04'30	8.46319 AU	opposition	-5234 Feb 18 j 16:30	20° $\mathbb{G}$ 28'14	2°34'18
direct	-5240 Feb 16 j 23:18	6° $\mathbb{X}$ 34'13		min. Earth dist.	-5234 Feb 18 j 22:59	20° $\mathbb{G}$ 27'02	9.20289 AU
evening set	-5240 Jun 01 j 22:56	14° $\mathbb{X}$ 21'34		direct	-5234 May 01 j 14:37	17° $\mathbb{G}$ 07'45	
	-5240 Jun 07 j 06:05	15° $\mathbb{X}$		evening set	-5234 Aug 12 j 14:46	24° $\mathbb{G}$ 07'40	
conjunction	-5240 Jun 19 j 17:31	16° $\mathbb{X}$ 31'42	0°-9'-29	conjunction	-5234 Aug 29 j 05:03	26° $\mathbb{G}$ 01'50	2°13'13
minimum elong	-5240 Jun 19 j 17:32	16° $\mathbb{X}$ 31'43	0°09'17	minimum elong	-5234 Aug 29 j 05:01	26° $\mathbb{G}$ 01'49	2°13'30
behind sun begin	-5240 Jun 19 j 11:29	16° $\mathbb{X}$ 29'52		max. Earth dist.	-5234 Aug 28 j 19:27	25° $\mathbb{G}$ 59'04	11.22759 AU
behind sun end	-5240 Jun 19 j 23:35	16° $\mathbb{X}$ 33'33		morning rise	-5234 Sep 14 j 15:52	27° $\mathbb{G}$ 55'03	
max. Earth dist.	-5240 Jun 20 j 06:12	16° $\mathbb{X}$ 35'35	10.54304 AU		-5234 Oct 03 j 19:11	0° $\mathbb{Q}$	
morning rise	-5240 Jul 07 j 06:59	18° $\mathbb{X}$ 40'17		retrograde	-5234 Dec 22 j 05:59	4° $\mathbb{Q}$ 39'14	
asc. node	-5240 Oct 10 j 05:14	25° $\mathbb{X}$ 59'14		opposition	-5233 Mar 02 j 07:46	1° $\mathbb{Q}$ 24'09	2°48'12
retrograde	-5240 Oct 15 j 00:27	26° $\mathbb{X}$ 00'29		min. Earth dist.	-5233 Mar 02 j 17:30	1° $\mathbb{Q}$ 22'23	9.24865 AU
opposition	-5240 Dec 21 j 10:30	22° $\mathbb{X}$ 39'10	0°07'27		-5233 Mar 22 j 03:43	30° $\mathbb{R}$ $\mathbb{G}$	
min. Earth dist.	-5240 Dec 21 j 01:28	22° $\mathbb{X}$ 40'56	8.61995 AU	direct	-5233 May 13 j 05:54	28° $\mathbb{G}$ 04'39	
direct	-5239 Mar 01 j 10:44	19° $\mathbb{X}$ 12'22			-5233 Jul 02 j 17:14	0° $\mathbb{Q}$	
evening set	-5239 Jun 15 j 02:47	26° $\mathbb{X}$ 49'15		evening set	-5233 Aug 23 j 16:33	5° $\mathbb{Q}$ 01'08	
conjunction	-5239 Jul 02 j 16:47	28° $\mathbb{X}$ 56'00	0°21'54	conjunction	-5233 Sep 09 j 03:43	6° $\mathbb{Q}$ 54'13	2°22'11
minimum elong	-5239 Jul 02 j 16:46	28° $\mathbb{X}$ 55'59	0°22'09	minimum elong	-5233 Sep 09 j 03:42	6° $\mathbb{Q}$ 54'13	2°22'27
max. Earth dist.	-5239 Jul 03 j 02:07	28° $\mathbb{X}$ 58'48	10.69765 AU	max. Earth dist.	-5233 Sep 08 j 14:57	6° $\mathbb{Q}$ 50'32	11.25851 AU
	-5239 Jul 11 j 12:41	0° $\mathbb{I}$		morning rise	-5233 Sep 25 j 12:23	8° $\mathbb{Q}$ 46'38	
morning rise	-5239 Jul 20 j 01:18	1° $\mathbb{I}$ 01'07			-5233 Dec 08 j 02:55	15° $\mathbb{Q}$	
retrograde	-5239 Oct 27 j 02:30	8° $\mathbb{I}$ 10'25		retrograde	-5232 Jan 02 j 13:30	15° $\mathbb{Q}$ 31'32	
opposition	-5238 Jan 02 j 22:50	4° $\mathbb{I}$ 50'46	0°44'57		-5232 Jan 28 j 09:44	15° $\mathbb{R}$ $\mathbb{Q}$	
min. Earth dist.	-5238 Jan 02 j 17:19	4° $\mathbb{I}$ 51'50	8.77089 AU	opposition	-5232 Mar 12 j 22:37	12° $\mathbb{Q}$ 16'23	2°56'01
direct	-5238 Mar 14 j 12:39	1° $\mathbb{I}$ 25'13		min. Earth dist.	-5232 Mar 13 j 10:14	12° $\mathbb{Q}$ 14'17	9.26520 AU
evening set	-5238 Jun 27 j 18:53	8° $\mathbb{I}$ 52'23		direct	-5232 May 23 j 20:14	8° $\mathbb{Q}$ 57'39	
					-5232 Aug 25 j 20:47	15° $\mathbb{Q}$	
conjunction	-5238 Jul 15 j 03:42	10° $\mathbb{I}$ 55'51	0°51'20	evening set	-5232 Sep 02 j 15:41	15° $\mathbb{Q}$ 52'05	
minimum elong	-5238 Jul 15 j 03:39	10° $\mathbb{I}$ 55'50	0°51'36	max. Earth dist.	-5232 Sep 18 j 10:36	17° $\mathbb{Q}$ 40'36	11.26000 AU
max. Earth dist.	-5238 Jul 15 j 08:24	10° $\mathbb{I}$ 57'15	10.84274 AU				
morning rise	-5238 Aug 01 j 07:11	12° $\mathbb{I}$ 57'44		conjunction	-5232 Sep 19 j 00:53	17° $\mathbb{Q}$ 44'44	2°26'02
retrograde	-5238 Nov 07 j 19:56	19° $\mathbb{I}$ 58'04		minimum elong	-5232 Sep 19 j 00:53	17° $\mathbb{Q}$ 44'43	2°26'15
opposition	-5237 Jan 15 j 04:20	16° $\mathbb{I}$ 39'53	1°19'16	morning rise	-5232 Oct 05 j 08:11	19° $\mathbb{Q}$ 36'55	
min. Earth dist.	-5237 Jan 15 j 02:09	16° $\mathbb{I}$ 40'18	8.90953 AU	retrograde	-5231 Jan 12 j 22:45	26° $\mathbb{Q}$ 24'12	
direct	-5237 Mar 27 j 07:28	13° $\mathbb{I}$ 15'39		opposition	-5231 Mar 24 j 14:16	23° $\mathbb{Q}$ 08'40	2°57'36
evening set	-5237 Jul 10 j 00:13	20° $\mathbb{I}$ 34'07		min. Earth dist.	-5231 Mar 25 j 03:23	23° $\mathbb{Q}$ 06'18	9.25187 AU
				direct	-5231 Jun 04 j 06:16	19° $\mathbb{Q}$ 50'30	
conjunction	-5237 Jul 27 j 03:49	22° $\mathbb{I}$ 34'35	1°17'52	evening set	-5231 Sep 13 j 13:56	26° $\mathbb{Q}$ 44'17	
minimum elong	-5237 Jul 27 j 03:46	22° $\mathbb{I}$ 34'34	1°18'09				
max. Earth dist.	-5237 Jul 27 j 04:05	22° $\mathbb{I}$ 34'39	10.97259 AU	conjunction	-5231 Sep 29 j 22:03	28° $\mathbb{Q}$ 37'04	2°24'38
morning rise	-5237 Aug 13 j 02:27	24° $\mathbb{I}$ 33'35		minimum elong	-5231 Sep 29 j 22:04	28° $\mathbb{Q}$ 37'04	2°24'48
	-5237 Oct 08 j 16:13	0° $\mathbb{G}$		max. Earth dist.	-5231 Sep 29 j 06:06	28° $\mathbb{Q}$ 32'27	11.23186 AU
retrograde	-5237 Nov 19 j 08:51	1° $\mathbb{G}$ 26'57			-5231 Oct 11 j 21:09	0° $\mathbb{P}$	
	-5236 Jan 01 j 06:01	30° $\mathbb{R}$ $\mathbb{I}$		morning rise	-5231 Oct 16 j 05:04	0° $\mathbb{P}$ 29'38	
opposition	-5236 Jan 27 j 04:16	28° $\mathbb{I}$ 09'58	1°49'24	retrograde	-5230 Jan 24 j 12:19	7° $\mathbb{P}$ 21'03	
min. Earth dist.	-5236 Jan 27 j 04:34	28° $\mathbb{I}$ 09'54	9.03053 AU	opposition	-5230 Apr 05 j 08:26	4° $\mathbb{P}$ 04'49	2°52'48
direct	-5236 Apr 07 j 16:48	24° $\mathbb{I}$ 47'04		min. Earth dist.	-5230 Apr 05 j 23:25	4° $\mathbb{P}$ 02'05	9.20891 AU
	-5236 Jul 03 j 00:52	0° $\mathbb{G}$		direct	-5230 Jun 15 j 17:02	0° $\mathbb{P}$ 46'56	
evening set	-5236 Jul 20 j 20:03	1° $\mathbb{G}$ 58'00		evening set	-5230 Sep 24 j 12:54	7° $\mathbb{P}$ 41'30	
conjunction	-5236 Aug 06 j 18:48	3° $\mathbb{G}$ 55'53	1°40'42	conjunction	-5230 Oct 10 j 20:50	9° $\mathbb{P}$ 35'00	2°17'56
minimum elong	-5236 Aug 06 j 18:45	3° $\mathbb{G}$ 55'52	1°40'59	minimum elong	-5230 Oct 10 j 20:52	9° $\mathbb{P}$ 35'01	2°18'03



## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 15

Attention, astronomical year style is used: The year -5230 in astronomical counting style is the year 5231 BCE in historical counting style.

max. Earth dist.	-5230 Oct 10 j 02:32	9° $\overline{\text{M}}$ 29'40	11.17478 AU	minimum elong	-5224 Dec 19 j 12:37	20° $\overline{\text{M}}$ 50'54	0°01'24
morning rise	-5230 Oct 27 j 04:51	11° $\overline{\text{M}}$ 28'36		behind sun begin	-5224 Dec 19 j 05:30	20° $\overline{\text{M}}$ 48'40	
retrograde	-5229 Feb 05 j 06:12	18° $\overline{\text{M}}$ 25'48		behind sun end	-5224 Dec 19 j 19:45	20° $\overline{\text{M}}$ 53'08	
opposition	-5229 Apr 17 j 06:06	15° $\overline{\text{M}}$ 08'31	2°41'38	max. Earth dist.	-5224 Dec 19 j 01:02	20° $\overline{\text{M}}$ 47'15	10.38004 AU
min. Earth dist.	-5229 Apr 17 j 22:46	15° $\overline{\text{M}}$ 05'29	9.13737 AU	morning rise	-5223 Jan 05 j 19:28	23° $\overline{\text{M}}$ 01'27	
direct	-5229 Jun 27 j 04:33	11° $\overline{\text{M}}$ 50'40			-5223 Mar 17 j 23:37	0° $\overline{\text{Z}}$	
evening set	-5229 Oct 05 j 14:32	18° $\overline{\text{M}}$ 47'31		retrograde	-5223 Apr 22 j 10:51	1° $\overline{\text{Z}}$ 03'25	
					-5223 May 28 j 08:51	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
conjunction	-5229 Oct 21 j 23:27	20° $\overline{\text{M}}$ 42'20	2°05'59	opposition	-5223 Jul 01 j 05:07	27° $\overline{\text{M}}$ 35'43	0°-22'-30
minimum elong	-5229 Oct 21 j 23:30	20° $\overline{\text{M}}$ 42'21	2°06'04	min. Earth dist.	-5223 Jul 01 j 13:05	27° $\overline{\text{M}}$ 34'09	8.30031 AU
max. Earth dist.	-5229 Oct 21 j 04:19	20° $\overline{\text{M}}$ 36'42	11.09003 AU	direct	-5223 Sep 06 j 12:43	24° $\overline{\text{M}}$ 13'00	
morning rise	-5229 Nov 07 j 09:28	22° $\overline{\text{M}}$ 37'33			-5223 Nov 30 j 04:41	0° $\overline{\text{Z}}$	
retrograde	-5228 Feb 17 j 06:30	29° $\overline{\text{M}}$ 42'13		evening set	-5223 Dec 15 j 20:23	1° $\overline{\text{Z}}$ 55'04	
opposition	-5228 Apr 28 j 08:09	26° $\overline{\text{M}}$ 23'35	2°24'08				
min. Earth dist.	-5228 Apr 29 j 01:10	26° $\overline{\text{M}}$ 20'27	9.03884 AU	conjunction	-5222 Jan 02 j 02:46	4° $\overline{\text{Z}}$ 07'30	0°-34'-17
direct	-5228 Jul 07 j 19:42	23° $\overline{\text{M}}$ 05'29		minimum elong	-5222 Jan 02 j 02:44	4° $\overline{\text{Z}}$ 07'29	0°34'34
	-5228 Oct 14 j 23:18	0° $\overline{\text{Z}}$		max. Earth dist.	-5222 Jan 01 j 19:43	4° $\overline{\text{Z}}$ 05'13	10.22540 AU
evening set	-5228 Oct 15 j 20:38	0° $\overline{\text{Z}}$ 06'12		morning rise	-5222 Jan 19 j 14:21	6° $\overline{\text{Z}}$ 21'40	
				retrograde	-5222 May 06 j 23:44	14° $\overline{\text{Z}}$ 36'18	
conjunction	-5228 Nov 01 j 07:41	2° $\overline{\text{Z}}$ 02'58	1°48'55	opposition	-5222 Jul 15 j 05:25	11° $\overline{\text{Z}}$ 06'52	-1°-3'-37
minimum elong	-5228 Nov 01 j 07:44	2° $\overline{\text{Z}}$ 02'59	1°48'57	min. Earth dist.	-5222 Jul 15 j 09:02	11° $\overline{\text{Z}}$ 06'08	8.15230 AU
max. Earth dist.	-5228 Oct 31 j 12:54	1° $\overline{\text{Z}}$ 57'22	10.97958 AU	direct	-5222 Sep 19 j 23:14	7° $\overline{\text{Z}}$ 42'45	
morning rise	-5228 Nov 17 j 20:30	4° $\overline{\text{Z}}$ 00'22		evening set	-5222 Dec 29 j 20:12	15° $\overline{\text{Z}}$ 36'00	
retrograde	-5227 Feb 28 j 17:09	11° $\overline{\text{Z}}$ 14'09					
opposition	-5227 May 10 j 16:07	7° $\overline{\text{Z}}$ 53'58	2°00'30	conjunction	-5221 Jan 16 j 06:57	17° $\overline{\text{Z}}$ 51'48	-1°-6'-31
min. Earth dist.	-5227 May 11 j 08:20	7° $\overline{\text{Z}}$ 50'57	8.91612 AU	minimum elong	-5221 Jan 16 j 06:54	17° $\overline{\text{Z}}$ 51'47	1°06'49
direct	-5227 Jul 19 j 14:20	4° $\overline{\text{Z}}$ 35'26		max. Earth dist.	-5221 Jan 16 j 04:30	17° $\overline{\text{Z}}$ 51'00	10.08524 AU
evening set	-5227 Oct 27 j 09:23	11° $\overline{\text{Z}}$ 41'35		morning rise	-5221 Feb 02 j 22:58	20° $\overline{\text{Z}}$ 09'22	
				retrograde	-5221 May 21 j 22:08	28° $\overline{\text{Z}}$ 35'21	
conjunction	-5227 Nov 12 j 23:13	13° $\overline{\text{Z}}$ 40'48	1°27'02	opposition	-5221 Jul 29 j 13:27	25° $\overline{\text{Z}}$ 04'29	-1°-42'-27
minimum elong	-5227 Nov 12 j 23:16	13° $\overline{\text{Z}}$ 40'49	1°27'00	min. Earth dist.	-5221 Jul 29 j 12:55	25° $\overline{\text{Z}}$ 04'36	8.02327 AU
max. Earth dist.	-5227 Nov 12 j 04:45	13° $\overline{\text{Z}}$ 35'13	10.84722 AU	direct	-5221 Oct 03 j 18:32	21° $\overline{\text{Z}}$ 38'55	
morning rise	-5227 Nov 29 j 15:45	15° $\overline{\text{Z}}$ 40'57		evening set	-5220 Jan 13 j 10:05	29° $\overline{\text{Z}}$ 43'12	
retrograde	-5226 Mar 13 j 12:13	23° $\overline{\text{Z}}$ 05'23			-5220 Jan 15 j 13:53	0° $\overline{\text{Z}}$	
opposition	-5226 May 23 j 07:11	19° $\overline{\text{Z}}$ 43'26	1°31'08				
min. Earth dist.	-5226 May 23 j 22:21	19° $\overline{\text{Z}}$ 40'34	8.77418 AU	conjunction	-5220 Jan 31 j 00:49	2° $\overline{\text{Z}}$ 01'59	-1°-35'-39
direct	-5226 Jul 31 j 13:06	16° $\overline{\text{Z}}$ 24'11		minimum elong	-5220 Jan 31 j 00:46	2° $\overline{\text{Z}}$ 01'57	1°35'58
evening set	-5226 Nov 08 j 06:50	23° $\overline{\text{Z}}$ 37'21		max. Earth dist.	-5220 Jan 31 j 03:02	2° $\overline{\text{Z}}$ 02'42	9.96795 AU
max. Earth dist.	-5226 Nov 24 j 06:19	25° $\overline{\text{Z}}$ 34'02	10.69869 AU	morning rise	-5220 Feb 17 j 20:41	4° $\overline{\text{Z}}$ 22'27	
				retrograde	-5220 Jun 05 j 03:13	12° $\overline{\text{Z}}$ 57'24	
conjunction	-5226 Nov 25 j 00:07	25° $\overline{\text{Z}}$ 39'29	1°00'50	opposition	-5220 Aug 12 j 03:44	9° $\overline{\text{Z}}$ 25'31	-2°-16'-5
minimum elong	-5226 Nov 25 j 00:09	25° $\overline{\text{Z}}$ 39'30	1°00'44	min. Earth dist.	-5220 Aug 11 j 23:25	9° $\overline{\text{Z}}$ 26'25	7.92128 AU
morning rise	-5226 Dec 11 j 21:11	27° $\overline{\text{Z}}$ 42'50		direct	-5220 Oct 17 j 00:04	5° $\overline{\text{Z}}$ 58'31	
	-5226 Dec 31 j 15:16	0° $\overline{\text{M}}$		evening set	-5219 Jan 27 j 12:22	14° $\overline{\text{Z}}$ 12'47	
retrograde	-5225 Mar 26 j 16:54	5° $\overline{\text{M}}$ 19'05					
opposition	-5225 Jun 05 j 06:04	1° $\overline{\text{M}}$ 55'15	0°56'42	conjunction	-5219 Feb 14 j 06:43	16° $\overline{\text{Z}}$ 33'58	-1°-59'-26
min. Earth dist.	-5225 Jun 05 j 19:55	1° $\overline{\text{M}}$ 52'36	8.61941 AU	minimum elong	-5219 Feb 14 j 06:39	16° $\overline{\text{Z}}$ 33'56	1°59'44
	-5225 Jul 02 j 01:00	30° $\overline{\text{R}}$ $\overline{\text{Z}}$		max. Earth dist.	-5219 Feb 14 j 13:39	16° $\overline{\text{Z}}$ 36'16	9.88135 AU
direct	-5225 Aug 12 j 20:24	28° $\overline{\text{Z}}$ 35'01		morning rise	-5219 Mar 04 j 05:42	18° $\overline{\text{Z}}$ 56'38	
	-5225 Sep 22 j 09:18	0° $\overline{\text{M}}$		retrograde	-5219 Jun 20 j 11:18	27° $\overline{\text{Z}}$ 37'12	
evening set	-5225 Nov 20 j 14:43	5° $\overline{\text{M}}$ 56'38		opposition	-5219 Aug 26 j 22:31	24° $\overline{\text{Z}}$ 04'46	-2°-41'-38
				min. Earth dist.	-5219 Aug 26 j 14:53	24° $\overline{\text{Z}}$ 06'22	7.85326 AU
conjunction	-5225 Dec 07 j 12:07	8° $\overline{\text{M}}$ 02'03	0°31'05	direct	-5219 Oct 31 j 14:52	20° $\overline{\text{Z}}$ 36'29	
minimum elong	-5225 Dec 07 j 12:08	8° $\overline{\text{M}}$ 02'04	0°30'55	evening set	-5218 Feb 12 j 00:18	28° $\overline{\text{Z}}$ 58'38	
max. Earth dist.	-5225 Dec 06 j 20:32	7° $\overline{\text{M}}$ 57'12	10.54054 AU		-5218 Feb 19 j 18:01	0° $\approx$	
morning rise	-5225 Dec 24 j 14:06	10° $\overline{\text{M}}$ 08'56					
	-5224 Feb 07 j 01:48	15° $\overline{\text{M}}$		conjunction	-5218 Mar 01 j 21:52	1° $\approx$ 21'29	-2°-15'-47
retrograde	-5224 Apr 08 j 08:36	17° $\overline{\text{M}}$ 57'51		minimum elong	-5218 Mar 01 j 21:50	1° $\approx$ 21'28	2°16'03
	-5224 Jun 11 j 12:46	15° $\overline{\text{R}}$ $\overline{\text{M}}$		max. Earth dist.	-5218 Mar 02 j 09:32	1° $\approx$ 25'23	9.83159 AU
opposition	-5224 Jun 17 j 13:19	14° $\overline{\text{M}}$ 32'04	0°18'18	morning rise	-5218 Mar 19 j 23:12	3° $\approx$ 45'30	
min. Earth dist.	-5224 Jun 18 j 00:53	14° $\overline{\text{M}}$ 29'49	8.45883 AU	retrograde	-5218 Jul 05 j 19:08	12° $\approx$ 27'30	
direct	-5224 Aug 24 j 11:50	11° $\overline{\text{M}}$ 10'39		opposition	-5218 Sep 10 j 19:11	8° $\approx$ 55'02	-2°-56'-45
	-5224 Oct 31 j 06:55	15° $\overline{\text{M}}$		min. Earth dist.	-5218 Sep 10 j 08:35	8° $\approx$ 57'15	7.82397 AU
evening set	-5224 Dec 02 j 10:46	18° $\overline{\text{M}}$ 42'01		direct	-5218 Nov 15 j 12:38	5° $\approx$ 25'42	
desc. node	-5224 Dec 06 j 10:55	19° $\overline{\text{M}}$ 11'56		evening set	-5217 Feb 27 j 18:26	13° $\approx$ 52'48	
					-5217 Mar 08 j 05:49	15° $\approx$	
conjunction	-5224 Dec 19 j 12:38	20° $\overline{\text{M}}$ 50'54	0°-1'-10				

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 16

Attention, astronomical year style is used: The year -5217 in astronomical counting style is the year 5218 BCE in historical counting style.

conjunction	-5217 Mar 17 j 18:41	16° $\approx$ 16'27	-2°-23'-14		-5211 Jul 17 j 10:32	15° $\mathbb{B}$	
minimum elong	-5217 Mar 17 j 18:41	16° $\approx$ 16'27	2°23'28	retrograde	-5211 Oct 09 j 19:53	20° $\mathbb{B}$ 34'38	
max. Earth dist.	-5217 Mar 18 j 10:30	16° $\approx$ 21'45	9.82235 AU	opposition	-5211 Dec 16 j 01:10	17° $\mathbb{B}$ 12'53	0°-10'-16
morning rise	-5217 Apr 04 j 21:28	18° $\approx$ 40'51		min. Earth dist.	-5211 Dec 15 j 14:55	17° $\mathbb{B}$ 14'55	8.55145 AU
retrograde	-5217 Jul 20 j 23:00	27° $\approx$ 19'45			-5210 Jan 15 j 15:53	15° $\mathbb{R}$ $\mathbb{B}$	
opposition	-5217 Sep 25 j 14:54	23° $\approx$ 47'47	-3°00'-1	direct	-5210 Feb 23 j 17:08	13° $\mathbb{B}$ 45'55	
min. Earth dist.	-5217 Sep 25 j 01:40	23° $\approx$ 50'35	7.83555 AU	asc. node	-5210 Mar 25 j 05:45	14° $\mathbb{B}$ 29'24	
direct	-5217 Nov 30 j 14:08	20° $\approx$ 17'43			-5210 Apr 03 j 12:39	15° $\mathbb{B}$	
evening set	-5216 Mar 14 j 14:06	28° $\approx$ 46'16		evening set	-5210 Jun 09 j 14:32	21° $\mathbb{B}$ 27'52	
	-5216 Mar 23 j 22:18	0° $\mathbb{H}$					
conjunction	-5216 Apr 01 j 16:21	1° $\mathbb{H}$ 09'50	-2°-21'-9	conjunction	-5210 Jun 27 j 06:37	23° $\mathbb{B}$ 36'10	0°07'51
minimum elong	-5216 Apr 01 j 16:22	1° $\mathbb{H}$ 09'50	2°21'19	minimum elong	-5210 Jun 27 j 06:36	23° $\mathbb{B}$ 36'10	0°08'05
max. Earth dist.	-5216 Apr 02 j 11:25	1° $\mathbb{H}$ 16'11	9.85442 AU	behind sun begin	-5210 Jun 27 j 00:12	23° $\mathbb{B}$ 34'14	
morning rise	-5216 Apr 19 j 19:41	3° $\mathbb{H}$ 33'39		behind sun end	-5210 Jun 27 j 12:59	23° $\mathbb{B}$ 38'05	
retrograde	-5216 Aug 03 j 19:57	12° $\mathbb{H}$ 05'12		max. Earth dist.	-5210 Jun 27 j 17:18	23° $\mathbb{B}$ 39'24	10.63246 AU
opposition	-5216 Oct 09 j 07:16	8° $\mathbb{H}$ 34'14	-2°-51'-15	morning rise	-5210 Jul 14 j 17:37	25° $\mathbb{B}$ 42'53	
min. Earth dist.	-5216 Oct 08 j 15:57	8° $\mathbb{H}$ 37'27	7.88724 AU		-5210 Aug 23 j 11:05	0° $\mathbb{II}$	
direct	-5216 Dec 14 j 15:31	5° $\mathbb{H}$ 03'49		retrograde	-5210 Oct 22 j 01:43	2° $\mathbb{II}$ 57'09	
evening set	-5215 Mar 30 j 06:39	13° $\mathbb{H}$ 30'09			-5210 Dec 23 j 19:42	30° $\mathbb{R}$ $\mathbb{B}$	
				opposition	-5210 Dec 28 j 17:26	29° $\mathbb{B}$ 37'12	0°28'15
conjunction	-5215 Apr 17 j 10:04	15° $\mathbb{H}$ 52'43	-2°-9'-52	min. Earth dist.	-5210 Dec 28 j 09:26	29° $\mathbb{B}$ 38'45	8.70938 AU
minimum elong	-5215 Apr 17 j 10:07	15° $\mathbb{H}$ 52'44	2°09'58	direct	-5209 Mar 09 j 01:14	26° $\mathbb{B}$ 11'33	
max. Earth dist.	-5215 Apr 18 j 07:15	15° $\mathbb{H}$ 59'42	9.92554 AU		-5209 May 19 j 07:42	0° $\mathbb{II}$	
morning rise	-5215 May 05 j 13:03	18° $\mathbb{H}$ 15'02		evening set	-5209 Jun 22 j 12:21	3° $\mathbb{II}$ 43'14	
retrograde	-5215 Aug 18 j 08:50	26° $\mathbb{H}$ 35'49					
opposition	-5215 Oct 23 j 17:48	23° $\mathbb{H}$ 06'17	-2°-31'-34	conjunction	-5209 Jul 09 j 23:35	5° $\mathbb{II}$ 48'08	0°38'18
min. Earth dist.	-5215 Oct 23 j 01:18	23° $\mathbb{H}$ 09'43	7.97538 AU	minimum elong	-5209 Jul 09 j 23:33	5° $\mathbb{II}$ 48'07	0°38'33
direct	-5215 Dec 29 j 14:35	19° $\mathbb{H}$ 35'53		max. Earth dist.	-5209 Jul 10 j 06:47	5° $\mathbb{II}$ 50'17	10.78571 AU
evening set	-5214 Apr 14 j 16:35	27° $\mathbb{H}$ 56'47		morning rise	-5209 Jul 27 j 05:26	7° $\mathbb{II}$ 51'27	
	-5214 Apr 30 j 14:17	0° $\mathbb{V}$		retrograde	-5209 Nov 03 j 00:06	14° $\mathbb{II}$ 55'45	
conjunction	-5214 May 02 j 20:07	0° $\mathbb{V}$ 17'31	-1°-50'-35	opposition	-5208 Jan 10 j 02:20	11° $\mathbb{II}$ 37'22	1°04'11
minimum elong	-5214 May 02 j 20:11	0° $\mathbb{V}$ 17'33	1°50'37	min. Earth dist.	-5208 Jan 09 j 21:28	11° $\mathbb{II}$ 38'18	8.85662 AU
max. Earth dist.	-5214 May 03 j 18:00	0° $\mathbb{V}$ 24'39	10.03058 AU	direct	-5208 Mar 20 j 23:49	8° $\mathbb{II}$ 13'03	
morning rise	-5214 May 20 j 21:42	2° $\mathbb{V}$ 37'34		evening set	-5208 Jul 03 j 22:51	15° $\mathbb{II}$ 35'22	
retrograde	-5214 Sep 01 j 11:24	10° $\mathbb{V}$ 45'14					
opposition	-5214 Nov 06 j 20:42	7° $\mathbb{V}$ 17'28	-2°-3'00	conjunction	-5208 Jul 21 j 04:59	17° $\mathbb{II}$ 37'08	1°06'16
min. Earth dist.	-5214 Nov 06 j 04:23	7° $\mathbb{V}$ 20'50	8.09388 AU	minimum elong	-5208 Jul 21 j 04:56	17° $\mathbb{II}$ 37'07	1°06'32
direct	-5213 Jan 13 j 08:43	3° $\mathbb{V}$ 47'30		max. Earth dist.	-5208 Jul 21 j 08:16	17° $\mathbb{II}$ 38'06	10.92446 AU
evening set	-5213 Apr 29 j 16:42	12° $\mathbb{V}$ 00'24		morning rise	-5208 Aug 07 j 05:41	19° $\mathbb{II}$ 37'21	
				retrograde	-5208 Nov 13 j 16:28	26° $\mathbb{II}$ 33'40	
conjunction	-5213 May 17 j 19:04	14° $\mathbb{V}$ 18'37	-1°-25'-8	opposition	-5207 Jan 21 j 04:56	23° $\mathbb{II}$ 16'38	1°36'20
minimum elong	-5213 May 17 j 19:08	14° $\mathbb{V}$ 18'38	1°25'06	min. Earth dist.	-5207 Jan 21 j 04:12	23° $\mathbb{II}$ 16'47	8.98646 AU
max. Earth dist.	-5213 May 18 j 16:06	14° $\mathbb{V}$ 25'21	10.16233 AU	direct	-5207 Apr 02 j 11:40	19° $\mathbb{II}$ 53'37	
morning rise	-5213 Jun 04 j 18:13	16° $\mathbb{V}$ 35'46		evening set	-5207 Jul 15 j 23:27	27° $\mathbb{II}$ 07'52	
retrograde	-5213 Sep 15 j 02:13	24° $\mathbb{V}$ 29'15					
opposition	-5213 Nov 20 j 15:14	21° $\mathbb{V}$ 03'28	-1°-28'-11	conjunction	-5207 Aug 02 j 00:25	29° $\mathbb{II}$ 06'51	1°30'52
min. Earth dist.	-5213 Nov 20 j 00:23	21° $\mathbb{V}$ 06'29	8.23511 AU	minimum elong	-5207 Aug 02 j 00:22	29° $\mathbb{II}$ 06'50	1°31'09
direct	-5212 Jan 27 j 20:17	17° $\mathbb{V}$ 34'16		max. Earth dist.	-5207 Aug 01 j 22:48	29° $\mathbb{II}$ 06'23	11.04292 AU
evening set	-5212 May 13 j 04:47	25° $\mathbb{V}$ 37'27			-5207 Aug 09 j 14:00	0° $\mathbb{S}$	
				morning rise	-5207 Aug 18 j 20:25	1° $\mathbb{S}$ 04'26	
conjunction	-5212 May 31 j 04:42	27° $\mathbb{V}$ 52'36	0°-55'-35	retrograde	-5207 Nov 25 j 02:10	7° $\mathbb{S}$ 54'53	
minimum elong	-5212 May 31 j 04:45	27° $\mathbb{V}$ 52'37	0°55'28	opposition	-5206 Feb 02 j 02:46	4° $\mathbb{S}$ 38'53	2°03'50
max. Earth dist.	-5212 May 31 j 23:15	27° $\mathbb{V}$ 58'26	10.31239 AU	min. Earth dist.	-5206 Feb 02 j 06:05	4° $\mathbb{S}$ 38'16	9.09398 AU
	-5212 Jun 17 j 03:41	0° $\mathbb{B}$		direct	-5206 Apr 14 j 17:51	1° $\mathbb{S}$ 17'03	
morning rise	-5212 Jun 18 j 00:31	0° $\mathbb{B}$ 06'26		evening set	-5206 Jul 27 j 15:35	8° $\mathbb{S}$ 24'35	
retrograde	-5212 Sep 27 j 04:12	7° $\mathbb{B}$ 45'47					
opposition	-5212 Dec 03 j 00:45	4° $\mathbb{B}$ 22'03	0°-49'-46	conjunction	-5206 Aug 13 j 11:41	10° $\mathbb{S}$ 21'14	1°51'27
min. Earth dist.	-5212 Dec 02 j 12:03	4° $\mathbb{B}$ 24'36	8.39055 AU	minimum elong	-5206 Aug 13 j 11:38	10° $\mathbb{S}$ 21'13	1°51'44
direct	-5211 Feb 09 j 23:41	0° $\mathbb{B}$ 53'52		max. Earth dist.	-5206 Aug 13 j 05:23	10° $\mathbb{S}$ 19'24	11.13736 AU
evening set	-5211 May 27 j 04:07	8° $\mathbb{B}$ 46'30		morning rise	-5206 Aug 30 j 03:31	12° $\mathbb{S}$ 16'40	
				retrograde	-5206 Dec 06 j 10:17	19° $\mathbb{S}$ 03'18	
conjunction	-5211 Jun 14 j 00:32	10° $\mathbb{B}$ 58'17	0°-24'00	opposition	-5205 Feb 13 j 21:04	15° $\mathbb{S}$ 47'57	2°26'05
minimum elong	-5211 Jun 14 j 00:33	10° $\mathbb{B}$ 58'17	0°23'50	min. Earth dist.	-5205 Feb 14 j 03:07	15° $\mathbb{S}$ 46'50	9.17608 AU
max. Earth dist.	-5211 Jun 14 j 15:22	11° $\mathbb{B}$ 02'52	10.47199 AU	direct	-5205 Apr 26 j 18:22	12° $\mathbb{S}$ 27'11	
morning rise	-5211 Jul 01 j 16:15	13° $\mathbb{B}$ 08'33		evening set	-5205 Aug 08 j 00:49	19° $\mathbb{S}$ 29'19	
				conjunction	-5205 Aug 24 j 16:50	21° $\mathbb{S}$ 24'10	2°07'31

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 17

Attention, astronomical year style is used: The year -5205 in astronomical counting style is the year 5206 BCE in historical counting style.

minimum elong	-5205 Aug 24 j 16:48	21° $\overline{5}$ 24'09	2°07'48	minimum elong	-5199 Oct 27 j 16:00	27° $\overline{m}$ 13'13	1°57'15
max. Earth dist.	-5205 Aug 24 j 07:41	21° $\overline{5}$ 21'31	11.20536 AU	max. Earth dist.	-5199 Oct 26 j 20:28	27° $\overline{m}$ 07'25	11.01518 AU
morning rise	-5205 Sep 10 j 05:03	23° $\overline{5}$ 17'58		morning rise	-5199 Nov 13 j 03:28	29° $\overline{m}$ 09'41	
	-5205 Dec 10 j 10:05	0° $\overline{Q}$			-5199 Nov 20 j 10:44	0° $\overline{Q}$	
retrograde	-5205 Dec 17 j 16:38	0° $\overline{Q}$ 02'39		retrograde	-5198 Feb 23 j 12:55	6° $\overline{Q}$ 19'32	
	-5205 Dec 25 j 00:23	30° $\overline{R}$ $\overline{5}$		opposition	-5198 May 05 j 13:30	2° $\overline{Q}$ 59'32	2°11'54
opposition	-5204 Feb 25 j 13:04	26° $\overline{5}$ 47'34	2°42'39	min. Earth dist.	-5198 May 06 j 06:18	2° $\overline{Q}$ 56'25	8.95764 AU
min. Earth dist.	-5204 Feb 25 j 21:31	26° $\overline{5}$ 46'02	9.23067 AU		-5198 Jun 24 j 21:27	30° $\overline{R}$ $\overline{m}$	
direct	-5204 May 07 j 12:09	23° $\overline{5}$ 27'43		direct	-5198 Jul 14 j 17:29	29° $\overline{m}$ 40'40	
	-5204 Aug 14 j 08:47	0° $\overline{Q}$			-5198 Aug 03 j 08:59	0° $\overline{Q}$	
evening set	-5204 Aug 18 j 04:43	0° $\overline{Q}$ 25'47		evening set	-5198 Oct 22 j 15:20	6° $\overline{Q}$ 44'35	
				max. Earth dist.	-5198 Nov 07 j 08:48	8° $\overline{Q}$ 37'03	10.89399 AU
conjunction	-5204 Sep 03 j 17:25	2° $\overline{Q}$ 19'21	2°18'45	conjunction	-5198 Nov 08 j 03:45	8° $\overline{Q}$ 42'45	1°37'26
minimum elong	-5204 Sep 03 j 17:23	2° $\overline{Q}$ 19'21	2°19'01	minimum elong	-5198 Nov 08 j 03:48	8° $\overline{Q}$ 42'46	1°37'25
max. Earth dist.	-5204 Sep 03 j 05:50	2° $\overline{Q}$ 16'01	11.24513 AU	morning rise	-5198 Nov 24 j 18:43	10° $\overline{Q}$ 41'45	
morning rise	-5204 Sep 20 j 02:52	4° $\overline{Q}$ 12'06		retrograde	-5197 Mar 08 j 02:08	18° $\overline{Q}$ 01'32	
retrograde	-5204 Dec 27 j 23:50	10° $\overline{Q}$ 56'39		opposition	-5197 May 18 j 01:15	14° $\overline{Q}$ 39'53	1°45'02
opposition	-5203 Mar 08 j 04:10	7° $\overline{Q}$ 41'31	2°53'16	min. Earth dist.	-5197 May 18 j 17:10	14° $\overline{Q}$ 36'54	8.82645 AU
min. Earth dist.	-5203 Mar 08 j 15:37	7° $\overline{Q}$ 39'26	9.25623 AU	direct	-5197 Jul 26 j 15:03	11° $\overline{Q}$ 20'29	
direct	-5203 May 19 j 02:33	4° $\overline{Q}$ 22'20		evening set	-5197 Nov 03 j 08:28	18° $\overline{Q}$ 30'39	
evening set	-5203 Aug 29 j 05:11	11° $\overline{Q}$ 17'45		max. Earth dist.	-5197 Nov 19 j 07:25	20° $\overline{Q}$ 26'24	10.75535 AU
conjunction	-5203 Sep 14 j 15:12	13° $\overline{Q}$ 10'36	2°24'56	conjunction	-5197 Nov 20 j 00:15	20° $\overline{Q}$ 31'32	1°13'06
minimum elong	-5203 Sep 14 j 15:11	13° $\overline{Q}$ 10'36	2°25'10	minimum elong	-5197 Nov 20 j 00:18	20° $\overline{Q}$ 31'33	1°13'01
max. Earth dist.	-5203 Sep 14 j 00:16	13° $\overline{Q}$ 06'18	11.25567 AU	morning rise	-5197 Dec 06 j 19:14	22° $\overline{Q}$ 33'30	
morning rise	-5203 Sep 30 j 23:00	15° $\overline{Q}$ 02'54			-5196 Mar 10 j 14:57	0° $\overline{m}$	
	-5203 Sep 30 j 12:45	15° $\overline{Q}$		retrograde	-5196 Mar 20 j 02:55	0° $\overline{m}$ 04'31	
retrograde	-5202 Jan 08 j 06:12	21° $\overline{Q}$ 49'04			-5196 Mar 29 j 16:27	30° $\overline{R}$ $\overline{Q}$	
opposition	-5202 Mar 19 j 19:34	18° $\overline{Q}$ 33'32	2°57'41	opposition	-5196 May 29 j 20:11	26° $\overline{Q}$ 41'08	1°12'44
min. Earth dist.	-5202 Mar 20 j 09:46	18° $\overline{Q}$ 30'57	9.25222 AU	min. Earth dist.	-5196 May 30 j 09:47	26° $\overline{Q}$ 38'33	8.68048 AU
direct	-5202 May 30 j 13:32	15° $\overline{Q}$ 14'48		direct	-5196 Aug 06 j 19:22	23° $\overline{Q}$ 21'01	
evening set	-5202 Sep 09 j 03:42	22° $\overline{Q}$ 09'00			-5196 Nov 09 j 01:36	0° $\overline{m}$	
conjunction	-5202 Sep 25 j 12:07	24° $\overline{Q}$ 01'43	2°25'54	evening set	-5196 Nov 14 j 11:18	0° $\overline{m}$ 38'55	
minimum elong	-5202 Sep 25 j 12:07	24° $\overline{Q}$ 01'43	2°26'05	conjunction	-5196 Dec 01 j 06:56	2° $\overline{m}$ 42'54	0°44'49
max. Earth dist.	-5202 Sep 24 j 18:57	23° $\overline{Q}$ 56'45	11.23694 AU	minimum elong	-5196 Dec 01 j 06:58	2° $\overline{m}$ 42'55	0°44'40
morning rise	-5202 Oct 11 j 19:19	25° $\overline{Q}$ 54'09		max. Earth dist.	-5196 Nov 30 j 16:14	2° $\overline{m}$ 38'21	10.60468 AU
	-5202 Nov 21 j 00:10	0° $\overline{m}$		morning rise	-5196 Dec 18 j 06:31	4° $\overline{m}$ 48'14	
retrograde	-5201 Jan 19 j 17:28	2° $\overline{m}$ 43'45		retrograde	-5195 Apr 02 j 15:32	12° $\overline{m}$ 31'32	
	-5201 Mar 24 j 00:57	30° $\overline{R}$ $\overline{Q}$		opposition	-5195 Jun 11 j 23:33	9° $\overline{m}$ 06'23	0°35'56
opposition	-5201 Mar 31 j 12:34	29° $\overline{Q}$ 27'28	2°55'47	min. Earth dist.	-5195 Jun 12 j 10:28	9° $\overline{m}$ 04'16	8.52580 AU
min. Earth dist.	-5201 Apr 01 j 04:03	29° $\overline{Q}$ 24'39	9.21892 AU	direct	-5195 Aug 19 j 04:57	5° $\overline{m}$ 45'23	
direct	-5201 Jun 11 j 02:12	26° $\overline{Q}$ 08'59		evening set	-5195 Nov 27 j 01:37	13° $\overline{m}$ 12'23	
	-5201 Aug 22 j 10:00	0° $\overline{m}$			-5195 Dec 11 j 10:40	15° $\overline{m}$	
evening set	-5201 Sep 20 j 01:55	3° $\overline{m}$ 03'21		conjunction	-5195 Dec 14 j 01:23	15° $\overline{m}$ 19'43	0°13'34
conjunction	-5201 Oct 06 j 09:57	4° $\overline{m}$ 56'35	2°21'36	minimum elong	-5195 Dec 14 j 01:23	15° $\overline{m}$ 19'43	0°13'22
minimum elong	-5201 Oct 06 j 09:59	4° $\overline{m}$ 56'35	2°21'43	behind sun begin	-5195 Dec 13 j 21:16	15° $\overline{m}$ 18'26	
max. Earth dist.	-5201 Oct 05 j 16:19	4° $\overline{m}$ 51'27	11.18951 AU	behind sun end	-5195 Dec 14 j 05:31	15° $\overline{m}$ 21'00	
morning rise	-5201 Oct 22 j 17:29	6° $\overline{m}$ 49'46		max. Earth dist.	-5195 Dec 13 j 13:00	15° $\overline{m}$ 15'50	10.44860 AU
retrograde	-5200 Jan 31 j 09:43	13° $\overline{m}$ 44'28		morning rise	-5195 Dec 31 j 05:57	17° $\overline{m}$ 28'38	
opposition	-5200 Apr 11 j 08:20	10° $\overline{m}$ 27'09	2°47'29	retrograde	-5194 Apr 16 j 13:10	25° $\overline{m}$ 24'51	
min. Earth dist.	-5200 Apr 12 j 00:07	10° $\overline{m}$ 24'16	9.15726 AU	desc. node	-5194 May 19 j 07:09	24° $\overline{m}$ 32'05	
direct	-5200 Jun 21 j 13:01	7° $\overline{m}$ 08'46		opposition	-5194 Jun 25 j 11:40	21° $\overline{m}$ 57'58	0°-4'-1
evening set	-5200 Sep 30 j 02:06	14° $\overline{m}$ 04'46		min. Earth dist.	-5194 Jun 25 j 19:48	21° $\overline{m}$ 56'22	8.36970 AU
conjunction	-5200 Oct 16 j 10:40	15° $\overline{m}$ 59'05	2°12'00	direct	-5194 Sep 01 j 00:47	18° $\overline{m}$ 35'55	
minimum elong	-5200 Oct 16 j 10:43	15° $\overline{m}$ 59'06	2°12'05	evening set	-5194 Dec 10 j 05:05	26° $\overline{m}$ 13'10	
max. Earth dist.	-5200 Oct 15 j 16:10	15° $\overline{m}$ 53'40	11.11477 AU	conjunction	-5194 Dec 27 j 09:16	28° $\overline{m}$ 24'00	0°-19'-26
morning rise	-5200 Nov 01 j 19:36	17° $\overline{m}$ 53'38		minimum elong	-5194 Dec 27 j 09:14	28° $\overline{m}$ 23'59	0°19'41
retrograde	-5199 Feb 11 j 07:27	24° $\overline{m}$ 55'06		max. Earth dist.	-5194 Dec 27 j 00:10	28° $\overline{m}$ 21'06	10.29474 AU
opposition	-5199 Apr 23 j 08:08	21° $\overline{m}$ 36'32	2°32'49		-5193 Jan 08 j 22:37	0° $\overline{x}$	
min. Earth dist.	-5199 Apr 24 j 00:38	21° $\overline{m}$ 33'30	9.06919 AU	morning rise	-5193 Jan 13 j 18:49	0° $\overline{x}$ 36'34	
direct	-5199 Jul 03 j 01:10	18° $\overline{m}$ 18'00		retrograde	-5193 Apr 30 j 21:20	8° $\overline{x}$ 45'36	
evening set	-5199 Oct 11 j 05:59	25° $\overline{m}$ 17'13		opposition	-5193 Jul 09 j 08:20	5° $\overline{x}$ 17'08	0°-45'-18
conjunction	-5199 Oct 27 j 15:57	27° $\overline{m}$ 13'12	1°57'12	min. Earth dist.	-5193 Jul 09 j 13:32	5° $\overline{x}$ 16'06	8.22027 AU

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 18

Attention, astronomical year style is used: The year -5193 in astronomical counting style is the year 5194 BCE in historical counting style.

direct	-5193 Sep 14 j 07:10	1°♂53'52		retrograde	-5187 Jul 28 j 17:03	5°♂45'59	
evening set	-5193 Dec 23 j 22:39	9°♂42'07		opposition	-5187 Oct 03 j 04:40	2°♂15'03	-2°-56'-22
				min. Earth dist.	-5187 Oct 02 j 14:53	2°♂17'57	7.87055 AU
conjunction	-5192 Jan 10 j 07:17	11°♂56'22	0°-52'-19		-5187 Nov 01 j 09:24	30°♂	
minimum elong	-5192 Jan 10 j 07:15	11°♂56'21	0°52'36	direct	-5187 Dec 08 j 06:21	28°♂45'15	
max. Earth dist.	-5192 Jan 10 j 02:54	11°♂54'57	10.15136 AU		-5186 Jan 13 j 22:40	0°♂	
morning rise	-5192 Jan 27 j 21:28	14°♂12'25		evening set	-5186 Mar 23 j 17:14	7°♂12'47	
retrograde	-5192 May 14 j 15:22	22°♂33'25					
opposition	-5192 Jul 22 j 13:13	19°♂03'33	-1°-25'-29	conjunction	-5186 Apr 10 j 20:06	9°♂35'49	-2°-15'-50
min. Earth dist.	-5192 Jul 22 j 14:35	19°♂03'17	8.08594 AU	minimum elong	-5186 Apr 10 j 20:09	9°♂35'50	2°15'58
direct	-5192 Sep 26 j 23:17	15°♂39'02		max. Earth dist.	-5186 Apr 11 j 15:18	9°♂42'10	9.89806 AU
evening set	-5191 Jan 06 j 06:17	23°♂38'19		morning rise	-5186 Apr 28 j 23:19	11°♂58'51	
				retrograde	-5186 Aug 12 j 10:48	20°♂24'49	
conjunction	-5191 Jan 23 j 19:10	25°♂55'42	-1°-23'-6	opposition	-5186 Oct 17 j 18:22	16°♂55'03	-2°-41'-23
minimum elong	-5191 Jan 23 j 19:07	25°♂55'41	1°23'25	min. Earth dist.	-5186 Oct 17 j 03:51	16°♂58'05	7.93828 AU
max. Earth dist.	-5191 Jan 23 j 20:15	25°♂56'04	10.02693 AU	direct	-5186 Dec 23 j 07:54	13°♂24'57	
morning rise	-5191 Feb 10 j 13:19	28°♂14'50		evening set	-5185 Apr 08 j 07:03	21°♂48'44	
	-5191 Feb 24 j 11:18	0°♂					
retrograde	-5191 May 29 j 17:28	6°♂45'53		conjunction	-5185 Apr 26 j 10:30	24°♂10'22	-1°-59'-55
opposition	-5191 Aug 06 j 01:06	3°♂14'57	-2°-1'-46	minimum elong	-5185 Apr 26 j 10:34	24°♂10'23	1°59'59
min. Earth dist.	-5191 Aug 05 j 22:09	3°♂15'33	7.97491 AU	max. Earth dist.	-5185 Apr 27 j 06:12	24°♂16'49	9.98382 AU
	-5191 Sep 27 j 06:39	30°♂		morning rise	-5185 May 14 j 12:54	26°♂31'32	
direct	-5191 Oct 11 j 01:09	29°♂49'08			-5185 Jun 12 j 05:33	0°♂	
	-5191 Oct 24 j 17:40	0°♂		retrograde	-5185 Aug 26 j 17:37	4°♂45'28	
evening set	-5190 Jan 21 j 03:18	7°♂58'44		min. Earth dist.	-5185 Oct 31 j 10:36	1°♂20'14	8.03928 AU
				opposition	-5185 Nov 01 j 01:18	1°♂17'11	-2°-16'-29
conjunction	-5190 Feb 07 j 20:05	10°♂18'45	-1°-49'-32		-5185 Nov 16 j 22:53	30°♂	
minimum elong	-5190 Feb 07 j 20:01	10°♂18'44	1°49'50	direct	-5184 Jan 07 j 06:20	27°♂47'11	
max. Earth dist.	-5190 Feb 08 j 02:41	10°♂20'57	9.92945 AU		-5184 Feb 26 j 19:07	0°♂	
morning rise	-5190 Feb 25 j 17:34	12°♂40'21		evening set	-5184 Apr 22 j 12:14	6°♂04'11	
retrograde	-5190 Jun 14 j 00:21	21°♂18'27					
opposition	-5190 Aug 20 j 18:06	17°♂46'47	-2°-31'-13	conjunction	-5184 May 10 j 15:08	8°♂23'38	-1°-36'-58
min. Earth dist.	-5190 Aug 20 j 11:04	17°♂48'14	7.89425 AU	minimum elong	-5184 May 10 j 15:12	8°♂23'39	1°36'58
direct	-5190 Oct 25 j 12:12	14°♂19'41		max. Earth dist.	-5184 May 11 j 10:17	8°♂29'49	10.09993 AU
evening set	-5189 Feb 05 j 11:24	22°♂37'59		morning rise	-5184 May 28 j 15:41	10°♂42'14	
				retrograde	-5184 Sep 08 j 12:28	18°♂42'27	
conjunction	-5189 Feb 23 j 07:36	24°♂59'58	-2°-9'-24	min. Earth dist.	-5184 Nov 13 j 09:25	15°♂18'51	8.16690 AU
minimum elong	-5189 Feb 23 j 07:33	24°♂59'57	2°09'41	opposition	-5184 Nov 14 j 00:03	15°♂15'51	-1°-44'-8
max. Earth dist.	-5189 Feb 23 j 18:57	25°♂03'46	9.86511 AU	direct	-5183 Jan 20 j 22:26	11°♂46'17	
morning rise	-5189 Mar 13 j 07:41	27°♂23'15		evening set	-5183 May 07 j 06:08	19°♂54'19	
	-5189 Apr 03 j 00:32	0°♂					
retrograde	-5189 Jun 29 j 08:44	6°♂04'31		conjunction	-5183 May 25 j 07:22	22°♂10'59	-1°-8'-59
opposition	-5189 Sep 04 j 14:04	2°♂32'35	-2°-51'-11	minimum elong	-5183 May 25 j 07:25	22°♂11'00	1°08'54
min. Earth dist.	-5189 Sep 04 j 03:46	2°♂34'45	7.84860 AU	max. Earth dist.	-5183 May 26 j 01:19	22°♂16'41	10.23862 AU
	-5189 Oct 08 j 19:19	30°♂		morning rise	-5183 Jun 12 j 05:00	24°♂26'27	
direct	-5189 Nov 09 j 06:21	29°♂04'20			-5183 Aug 02 j 18:30	0°♂	
	-5189 Dec 10 j 10:43	0°♂		retrograde	-5183 Sep 21 j 20:02	2°♂12'29	
evening set	-5188 Feb 21 j 03:07	7°♂28'53			-5183 Nov 12 j 08:11	30°♂	
				opposition	-5183 Nov 27 j 13:49	28°♂47'42	-1°-6'-59
conjunction	-5188 Mar 10 j 02:09	9°♂52'03	-2°-20'-56	min. Earth dist.	-5183 Nov 27 j 00:11	28°♂50'27	8.31290 AU
minimum elong	-5188 Mar 10 j 02:08	9°♂52'03	2°21'11	direct	-5182 Feb 04 j 05:47	25°♂18'52	
max. Earth dist.	-5188 Mar 10 j 17:04	9°♂57'02	9.83745 AU		-5182 Apr 23 j 03:15	0°♂	
morning rise	-5188 Mar 28 j 04:03	12°♂16'08		evening set	-5182 May 21 j 11:37	3°♂16'39	
	-5188 Apr 18 j 19:44	15°♂					
retrograde	-5188 Jul 13 j 15:22	20°♂56'25		conjunction	-5182 Jun 08 j 09:57	5°♂30'07	0°-38'-3
opposition	-5188 Sep 18 j 10:25	17°♂24'45	-2°-59'-49	minimum elong	-5182 Jun 08 j 09:59	5°♂30'07	0°37'54
min. Earth dist.	-5188 Sep 17 j 22:01	17°♂27'22	7.84029 AU	max. Earth dist.	-5182 Jun 09 j 01:53	5°♂35'05	10.39113 AU
	-5188 Oct 20 j 05:49	15°♂		morning rise	-5182 Jun 26 j 03:39	7°♂42'07	
direct	-5188 Nov 23 j 05:11	13°♂55'35			-5182 Sep 18 j 12:59	15°♂	
	-5188 Dec 26 j 22:55	15°♂		retrograde	-5182 Oct 04 j 18:14	15°♂14'25	
evening set	-5187 Mar 07 j 22:31	22°♂23'21			-5182 Oct 20 j 23:30	15°♂	
				opposition	-5182 Dec 10 j 18:29	11°♂51'29	0°-27'-41
conjunction	-5187 Mar 25 j 23:49	24°♂46'54	-2°-23'-7	min. Earth dist.	-5182 Dec 10 j 06:58	11°♂53'47	8.46869 AU
minimum elong	-5187 Mar 25 j 23:50	24°♂46'54	2°23'19	direct	-5181 Feb 18 j 02:29	8°♂23'39	
max. Earth dist.	-5187 Mar 26 j 17:20	24°♂52'44	9.84832 AU		-5181 May 25 j 04:57	15°♂	
morning rise	-5187 Apr 13 j 02:48	27°♂10'55		evening set	-5181 Jun 04 j 04:00	16°♂10'44	
	-5187 May 05 j 13:44	0°♂					

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Attention, astronomical year style is used: The year -5181 in astronomical counting style is the year 5182 BCE in historical counting style.

conjunction	-5181 Jun 21 j 22:20	18°♄20'46	0°-6'-11	conjunction	-5175 Aug 30 j 06:37	27°♄45'25	2°14'22
minimum elong	-5181 Jun 21 j 22:21	18°♄20'47	0°05'59	minimum elong	-5175 Aug 30 j 06:35	27°♄45'24	2°14'39
behind sun begin	-5181 Jun 21 j 15:29	18°♄18'41		max. Earth dist.	-5175 Aug 29 j 20:42	27°♄42'33	11.23366 AU
behind sun end	-5181 Jun 22 j 05:13	18°♄22'52		morning rise	-5175 Sep 15 j 17:19	29°♄38'30	
max. Earth dist.	-5181 Jun 22 j 11:18	18°♄24'44	10.54889 AU		-5175 Sep 18 j 21:46	0°♄	
morning rise	-5181 Jul 09 j 11:28	20°♄29'13		retrograde	-5175 Dec 23 j 07:55	6°♄22'26	
asc. node	-5181 Sep 03 j 02:09	26°♄07'56		opposition	-5174 Mar 03 j 10:09	3°♄07'19	2°49'15
retrograde	-5181 Oct 17 j 04:13	27°♄49'00		min. Earth dist.	-5174 Mar 03 j 19:26	3°♄05'38	9.25451 AU
opposition	-5181 Dec 23 j 14:38	24°♄27'51	0°11'30		-5174 Apr 28 j 05:51	30°♄	
min. Earth dist.	-5181 Dec 23 j 06:13	24°♄29'30	8.62605 AU	direct	-5174 May 14 j 10:07	29°♄47'50	
direct	-5180 Mar 02 j 14:57	21°♄01'10			-5174 May 30 j 10:31	0°♄	
evening set	-5180 Jun 16 j 07:23	28°♄37'46		evening set	-5174 Aug 24 j 17:54	6°♄43'50	
	-5180 Jun 27 j 18:13	0°♄					
conjunction	-5180 Jul 03 j 20:58	0°♄44'20	0°25'07	conjunction	-5174 Sep 10 j 04:57	8°♄36'49	2°22'47
minimum elong	-5180 Jul 03 j 20:57	0°♄44'20	0°25'22	minimum elong	-5174 Sep 10 j 04:56	8°♄36'48	2°23'02
max. Earth dist.	-5180 Jul 04 j 05:45	0°♄46'59	10.70397 AU	max. Earth dist.	-5174 Sep 09 j 16:58	8°♄33'21	11.26405 AU
morning rise	-5180 Jul 21 j 05:13	2°♄49'19		morning rise	-5174 Sep 26 j 13:23	10°♄29'06	
retrograde	-5180 Oct 28 j 04:52	9°♄58'16			-5174 Nov 11 j 03:05	15°♄	
opposition	-5179 Jan 04 j 02:46	6°♄38'45	0°48'46	retrograde	-5173 Jan 03 j 14:57	17°♄13'45	
min. Earth dist.	-5179 Jan 03 j 21:27	6°♄39'46	8.77746 AU		-5173 Feb 28 j 16:57	15°♄	
direct	-5179 Mar 15 j 18:19	3°♄13'18		opposition	-5173 Mar 15 j 00:44	13°♄58'33	2°56'23
evening set	-5179 Jun 28 j 22:56	10°♄40'07		min. Earth dist.	-5173 Mar 15 j 11:39	13°♄56'34	9.27041 AU
				direct	-5173 May 25 j 22:03	10°♄39'53	
conjunction	-5179 Jul 16 j 07:21	12°♄43'24	0°54'19		-5173 Aug 11 j 19:03	15°♄	
minimum elong	-5179 Jul 16 j 07:19	12°♄43'23	0°54'35	evening set	-5173 Sep 04 j 16:35	17°♄33'48	
max. Earth dist.	-5179 Jul 16 j 11:33	12°♄44'39	10.84943 AU	max. Earth dist.	-5173 Sep 20 j 11:53	19°♄22'22	11.26488 AU
morning rise	-5179 Aug 02 j 10:36	14°♄45'07		conjunction	-5173 Sep 21 j 01:41	19°♄26'21	2°26'03
retrograde	-5179 Nov 08 j 23:08	21°♄45'07		minimum elong	-5173 Sep 21 j 01:41	19°♄26'21	2°26'15
opposition	-5178 Jan 16 j 07:53	18°♄27'01	1°22'43	morning rise	-5173 Oct 07 j 08:51	21°♄18'27	
min. Earth dist.	-5178 Jan 16 j 05:08	18°♄27'32	8.91632 AU	retrograde	-5172 Jan 15 j 00:33	28°♄05'32	
direct	-5178 Mar 28 j 11:25	15°♄02'53		opposition	-5172 Mar 25 j 16:15	24°♄49'58	2°57'15
evening set	-5178 Jul 11 j 03:42	22°♄20'56		min. Earth dist.	-5172 Mar 26 j 05:29	24°♄47'34	9.25644 AU
				direct	-5172 Jun 05 j 08:04	21°♄31'50	
conjunction	-5178 Jul 28 j 07:01	24°♄21'14	1°20'30	evening set	-5172 Sep 14 j 14:26	28°♄25'09	
minimum elong	-5178 Jul 28 j 06:58	24°♄21'14	1°20'46		-5172 Sep 28 j 08:47	0°♄	
max. Earth dist.	-5178 Jul 28 j 07:48	24°♄21'28	10.97937 AU	conjunction	-5172 Sep 30 j 22:25	0°♄17'51	2°24'05
morning rise	-5178 Aug 14 j 05:15	26°♄20'04		minimum elong	-5172 Sep 30 j 22:26	0°♄17'51	2°24'14
	-5178 Sep 17 j 19:29	0°♄		max. Earth dist.	-5172 Sep 30 j 05:56	0°♄13'05	11.23615 AU
retrograde	-5178 Nov 20 j 11:23	3°♄13'07		morning rise	-5172 Oct 17 j 05:35	2°♄10'23	
	-5177 Jan 27 j 11:15	30°♄		retrograde	-5171 Jan 25 j 12:37	9°♄01'35	
opposition	-5177 Jan 28 j 07:35	29°♄56'11	1°52'21	opposition	-5171 Apr 06 j 10:07	5°♄45'20	2°51'47
min. Earth dist.	-5177 Jan 28 j 07:23	29°♄56'13	9.03725 AU	min. Earth dist.	-5171 Apr 07 j 01:32	5°♄42'31	9.21289 AU
direct	-5177 Apr 09 j 20:55	26°♄33'23		direct	-5171 Jun 16 j 17:56	2°♄27'28	
	-5177 Jun 17 j 09:46	0°♄		evening set	-5171 Sep 25 j 13:03	9°♄21'38	
evening set	-5177 Jul 22 j 23:02	3°♄43'51					
conjunction	-5177 Aug 08 j 21:28	5°♄41'34	1°42'54	conjunction	-5171 Oct 11 j 21:00	11°♄15'05	2°16'51
minimum elong	-5177 Aug 08 j 21:25	5°♄41'33	1°43'11	minimum elong	-5171 Oct 11 j 21:03	11°♄15'05	2°16'57
max. Earth dist.	-5177 Aug 08 j 19:23	5°♄40'57	11.08902 AU	max. Earth dist.	-5171 Oct 11 j 02:53	11°♄09'47	11.17851 AU
morning rise	-5177 Aug 25 j 15:02	7°♄37'56		morning rise	-5171 Oct 28 j 05:10	13°♄08'38	
retrograde	-5177 Dec 01 j 21:18	14°♄26'03		retrograde	-5170 Feb 06 j 06:03	20°♄05'43	
opposition	-5176 Feb 09 j 03:01	11°♄10'02	2°16'58	opposition	-5170 Apr 18 j 07:25	16°♄48'24	2°39'58
min. Earth dist.	-5176 Feb 09 j 06:19	11°♄09'25	9.13598 AU	min. Earth dist.	-5170 Apr 18 j 23:40	16°♄45'25	9.14082 AU
direct	-5176 Apr 20 j 22:17	7°♄48'28		direct	-5170 Jun 28 j 06:22	13°♄30'35	
evening set	-5176 Aug 02 j 10:51	14°♄52'43		evening set	-5170 Oct 06 j 14:22	20°♄27'03	
conjunction	-5176 Aug 19 j 04:43	16°♄48'19	2°00'59	conjunction	-5170 Oct 22 j 23:30	22°♄21'51	2°04'24
minimum elong	-5176 Aug 19 j 04:41	16°♄48'18	2°01'16	minimum elong	-5170 Oct 22 j 23:33	22°♄21'52	2°04'28
max. Earth dist.	-5176 Aug 18 j 22:39	16°♄46'33	11.17469 AU	max. Earth dist.	-5170 Oct 22 j 05:21	22°♄16'31	11.09335 AU
morning rise	-5176 Sep 04 j 18:26	18°♄42'46		morning rise	-5170 Nov 08 j 09:33	24°♄17'02	
retrograde	-5176 Dec 12 j 02:00	25°♄27'49			-5169 Jan 07 j 19:37	0°♄	
opposition	-5175 Feb 19 j 19:20	22°♄12'26	2°36'02	retrograde	-5169 Feb 18 j 08:41	1°♄21'36	
min. Earth dist.	-5175 Feb 20 j 02:11	22°♄11'10	9.20921 AU		-5169 Apr 01 j 23:48	30°♄	
direct	-5175 May 02 j 16:47	18°♄51'59		opposition	-5169 Apr 30 j 09:20	28°♄02'56	2°21'54
evening set	-5175 Aug 13 j 16:39	25°♄51'25		min. Earth dist.	-5169 May 01 j 01:26	27°♄59'59	9.04201 AU
				direct	-5169 Jul 09 j 21:00	24°♄44'55	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 20

Attention, astronomical year style is used: The year -5169 in astronomical counting style is the year 5170 BCE in historical counting style.

	-5169 Oct 02 j 08:02	0°♄		retrograde	-5163 May 08 j 02:12	16°♄16'11	
evening set	-5169 Oct 17 j 20:19	1°♄45'13		opposition	-5163 Jul 16 j 06:07	12°♄46'48	-1°-6'-57
				min. Earth dist.	-5163 Jul 16 j 09:49	12°♄46'03	8.14995 AU
conjunction	-5169 Nov 03 j 07:30	3°♄41'58	1°46'54	direct	-5163 Sep 20 j 22:05	9°♄22'42	
minimum elong	-5169 Nov 03 j 07:33	3°♄41'59	1°46'54	evening set	-5163 Dec 30 j 21:05	17°♄16'19	
max. Earth dist.	-5169 Nov 02 j 13:00	3°♄36'27	10.98270 AU				
morning rise	-5169 Nov 19 j 20:29	5°♄39'22		conjunction	-5162 Jan 17 j 07:51	19°♄32'11	-1°-9'-3
retrograde	-5168 Mar 01 j 17:39	12°♄53'02		minimum elong	-5162 Jan 17 j 07:48	19°♄32'10	1°09'20
opposition	-5168 May 11 j 17:08	9°♄32'50	1°57'46	max. Earth dist.	-5162 Jan 17 j 04:22	19°♄31'03	10.08244 AU
min. Earth dist.	-5168 May 12 j 09:08	9°♄29'51	8.91904 AU	morning rise	-5162 Feb 04 j 00:06	21°♄49'52	
direct	-5168 Jul 20 j 13:50	6°♄14'20			-5162 May 05 j 13:54	0°♄	
evening set	-5168 Oct 28 j 09:04	13°♄20'11		retrograde	-5162 May 23 j 01:02	0°♄16'11	
					-5162 Jun 09 j 10:15	30°♄	
conjunction	-5168 Nov 13 j 22:58	15°♄19'23	1°24'39	opposition	-5162 Jul 30 j 14:23	26°♄45'22	-1°-45'-22
minimum elong	-5168 Nov 13 j 23:01	15°♄19'24	1°24'36	min. Earth dist.	-5162 Jul 30 j 14:30	26°♄45'21	8.02009 AU
max. Earth dist.	-5168 Nov 13 j 03:48	15°♄13'36	10.84994 AU	direct	-5162 Oct 04 j 18:29	23°♄19'47	
morning rise	-5168 Nov 30 j 15:49	17°♄19'33			-5161 Jan 03 j 09:35	0°♄	
retrograde	-5167 Mar 14 j 12:20	24°♄43'53		evening set	-5161 Jan 14 j 11:27	1°♄24'33	
opposition	-5167 May 24 j 07:56	21°♄21'57	1°28'00				
min. Earth dist.	-5167 May 24 j 23:44	21°♄18'58	8.77645 AU	conjunction	-5161 Feb 01 j 02:17	3°♄43'25	-1°-37'-46
direct	-5167 Aug 01 j 13:47	18°♄02'44		minimum elong	-5161 Feb 01 j 02:13	3°♄43'24	1°38'04
evening set	-5167 Nov 09 j 06:27	25°♄15'42		max. Earth dist.	-5161 Feb 01 j 03:35	3°♄43'51	9.96451 AU
				morning rise	-5161 Feb 18 j 22:23	6°♄03'59	
conjunction	-5167 Nov 25 j 23:54	27°♄17'51	0°58'10	retrograde	-5161 Jun 07 j 05:10	14°♄39'17	
minimum elong	-5167 Nov 25 j 23:57	27°♄17'51	0°58'03	opposition	-5161 Aug 14 j 04:53	11°♄07'28	-2°-18'-24
max. Earth dist.	-5167 Nov 25 j 06:01	27°♄12'22	10.70056 AU	min. Earth dist.	-5161 Aug 14 j 01:25	11°♄08'11	7.91765 AU
morning rise	-5167 Dec 12 j 21:15	29°♄21'15		direct	-5161 Oct 19 j 01:53	7°♄40'25	
	-5167 Dec 18 j 07:26	0°♄		evening set	-5160 Jan 29 j 14:20	15°♄55'14	
retrograde	-5166 Mar 27 j 17:20	6°♄57'30					
opposition	-5166 Jun 06 j 06:43	3°♄33'41	0°53'17	conjunction	-5160 Feb 16 j 08:51	18°♄16'31	-2°00'-58
min. Earth dist.	-5166 Jun 06 j 20:55	3°♄30'58	8.62067 AU	minimum elong	-5160 Feb 16 j 08:48	18°♄16'30	2°01'16
direct	-5166 Aug 13 j 20:26	0°♄13'30		max. Earth dist.	-5160 Feb 16 j 15:19	18°♄18'41	9.87759 AU
evening set	-5166 Nov 21 j 14:20	7°♄35'02		morning rise	-5160 Mar 05 j 08:00	20°♄39'17	
				retrograde	-5160 Jun 21 j 12:21	29°♄20'09	
conjunction	-5166 Dec 08 j 12:02	9°♄40'30	0°28'15	opposition	-5160 Aug 27 j 23:55	25°♄47'46	-2°-43'-10
minimum elong	-5166 Dec 08 j 12:03	9°♄40'30	0°28'04	min. Earth dist.	-5160 Aug 27 j 16:48	25°♄49'15	7.84948 AU
max. Earth dist.	-5166 Dec 07 j 21:05	9°♄35'51	10.54123 AU	direct	-5160 Nov 01 j 17:14	22°♄19'27	
morning rise	-5166 Dec 25 j 14:08	11°♄47'25			-5159 Feb 07 j 17:23	0°♄	
	-5165 Jan 22 j 10:33	15°♄		evening set	-5159 Feb 13 j 02:45	0°♄42'07	
retrograde	-5165 Apr 10 j 08:41	19°♄36'30					
opposition	-5165 Jun 19 j 13:55	16°♄10'43	0°14'45	conjunction	-5159 Mar 03 j 00:31	3°♄05'04	-2°-16'-38
min. Earth dist.	-5165 Jun 20 j 01:10	16°♄08'32	8.45889 AU	minimum elong	-5159 Mar 03 j 00:28	3°♄05'04	2°16'54
	-5165 Jul 05 j 02:10	15°♄		max. Earth dist.	-5159 Mar 03 j 12:16	3°♄09'01	9.82785 AU
direct	-5165 Aug 26 j 12:39	12°♄49'23		morning rise	-5159 Mar 21 j 01:53	5°♄29'10	
	-5165 Oct 15 j 14:52	15°♄		retrograde	-5159 Jul 06 j 20:03	14°♄11'25	
desc. node	-5165 Nov 05 j 03:50	16°♄56'42		opposition	-5159 Sep 11 j 20:48	10°♄38'58	-2°-57'-22
evening set	-5165 Dec 04 j 10:46	20°♄20'47		min. Earth dist.	-5159 Sep 11 j 10:08	10°♄41'12	7.82041 AU
				direct	-5159 Nov 16 j 14:37	7°♄09'35	
conjunction	-5165 Dec 21 j 12:53	22°♄29'45	0°-4'-4		-5158 Feb 24 j 03:17	15°♄	
minimum elong	-5165 Dec 21 j 12:53	22°♄29'45	0°04'18	evening set	-5158 Feb 28 j 21:16	15°♄37'08	
behind sun begin	-5165 Dec 21 j 05:52	22°♄27'34					
behind sun end	-5165 Dec 21 j 19:53	22°♄31'57		conjunction	-5158 Mar 18 j 21:45	18°♄00'54	-2°-23'-19
max. Earth dist.	-5165 Dec 21 j 01:32	22°♄26'11	10.37945 AU	minimum elong	-5158 Mar 18 j 21:45	18°♄00'54	2°23'32
morning rise	-5164 Jan 07 j 19:51	24°♄40'22		max. Earth dist.	-5158 Mar 19 j 14:06	18°♄06'22	9.81900 AU
	-5164 Feb 25 j 13:32	0°♄		morning rise	-5158 Apr 06 j 00:33	20°♄25'22	
retrograde	-5164 Apr 23 j 12:05	2°♄42'33		retrograde	-5158 Jul 22 j 00:35	29°♄04'24	
	-5164 Jun 22 j 15:03	30°♄		opposition	-5158 Sep 26 j 16:42	25°♄32'26	-2°-59'-38
opposition	-5164 Jul 02 j 05:38	29°♄14'53	0°-26'-2	min. Earth dist.	-5158 Sep 26 j 03:04	25°♄35'18	7.83250 AU
min. Earth dist.	-5164 Jul 02 j 13:09	29°♄13'24	8.29911 AU	direct	-5158 Dec 01 j 15:17	22°♄02'17	
direct	-5164 Sep 07 j 12:49	25°♄52'13			-5157 Mar 12 j 17:08	0°♄	
	-5164 Nov 16 j 12:43	0°♄		evening set	-5157 Mar 16 j 17:18	0°♄31'12	
evening set	-5164 Dec 16 j 20:50	3°♄34'29					
				conjunction	-5157 Apr 03 j 19:47	2°♄54'51	-2°-20'-27
conjunction	-5163 Jan 03 j 03:20	5°♄47'00	0°-37'-4	minimum elong	-5157 Apr 03 j 19:49	2°♄54'52	2°20'36
minimum elong	-5163 Jan 03 j 03:18	5°♄46'59	0°37'21	max. Earth dist.	-5157 Apr 04 j 15:26	3°♄01'24	9.85172 AU
max. Earth dist.	-5163 Jan 02 j 19:38	5°♄44'31	10.22360 AU	morning rise	-5157 Apr 21 j 23:06	5°♄18'44	
morning rise	-5163 Jan 20 j 15:06	8°♄01'16		retrograde	-5157 Aug 05 j 23:09	13°♄50'17	

Attention, astronomical year style is used: The year -5157 in astronomical counting style is the year 5158 BCE in historical counting style.

opposition	-5157 Oct 11 j 09:12	10° <del>✕</del> 19'17	-2°-49'-54	opposition	-5151 Dec 29 j 19:19	1° <del>Π</del> 20'05	0°31'56
min. Earth dist.	-5157 Oct 10 j 17:38	10° <del>✕</del> 22'33	7.88486 AU	min. Earth dist.	-5151 Dec 29 j 10:53	1° <del>Π</del> 21'43	8.71242 AU
direct	-5157 Dec 16 j 16:56	6° <del>✕</del> 48'46			-5150 Jan 16 j 12:10	30° <del>℞</del> 8	
evening set	-5156 Mar 31 j 10:06	15° <del>✕</del> 15'22		direct	-5150 Mar 10 j 03:51	27° <del>℞</del> 54'29	
					-5150 Apr 30 j 19:08	0° <del>Π</del>	
conjunction	-5156 Apr 18 j 13:39	17° <del>✕</del> 38'00	-2°-8'-25	evening set	-5150 Jun 23 j 14:37	5° <del>Π</del> 25'56	
minimum elong	-5156 Apr 18 j 13:42	17° <del>✕</del> 38'01	2°08'31				
max. Earth dist.	-5156 Apr 19 j 11:15	17° <del>✕</del> 45'07	9.92359 AU	conjunction	-5150 Jul 11 j 01:37	7° <del>Π</del> 30'44	0°41'12
morning rise	-5156 May 06 j 16:33	20° <del>✕</del> 00'21		minimum elong	-5150 Jul 11 j 01:35	7° <del>Π</del> 30'43	0°41'28
retrograde	-5156 Aug 19 j 12:28	28° <del>✕</del> 20'59		max. Earth dist.	-5150 Jul 11 j 09:41	7° <del>Π</del> 33'09	10.78933 AU
opposition	-5156 Oct 24 j 19:52	24° <del>✕</del> 51'26	-2°-29'-21	morning rise	-5150 Jul 28 j 07:04	9° <del>Π</del> 33'55	
min. Earth dist.	-5156 Oct 24 j 03:32	24° <del>✕</del> 54'50	7.97380 AU	retrograde	-5150 Nov 04 j 02:24	16° <del>Π</del> 37'58	
direct	-5156 Dec 30 j 16:57	21° <del>✕</del> 20'56		opposition	-5149 Jan 11 j 04:10	13° <del>Π</del> 19'39	1°07'36
evening set	-5155 Apr 15 j 20:00	29° <del>✕</del> 41'58		min. Earth dist.	-5149 Jan 10 j 23:31	13° <del>Π</del> 20'33	8.86090 AU
	-5155 Apr 18 j 04:26	0° <del>Υ</del>		direct	-5149 Mar 23 j 00:42	9° <del>Π</del> 55'24	
				evening set	-5149 Jul 06 j 00:51	17° <del>Π</del> 17'27	
conjunction	-5155 May 03 j 23:32	2° <del>Υ</del> 02'44	-1°-48'-31				
minimum elong	-5155 May 03 j 23:36	2° <del>Υ</del> 02'45	1°48'32	conjunction	-5149 Jul 23 j 06:33	19° <del>Π</del> 19'04	1°08'55
max. Earth dist.	-5155 May 04 j 21:27	2° <del>Υ</del> 09'52	10.02950 AU	minimum elong	-5149 Jul 23 j 06:31	19° <del>Π</del> 19'03	1°09'11
morning rise	-5155 May 22 j 01:04	4° <del>Υ</del> 22'48		max. Earth dist.	-5149 Jul 23 j 09:53	19° <del>Π</del> 20'03	10.92946 AU
retrograde	-5155 Sep 02 j 13:46	12° <del>Υ</del> 30'13		morning rise	-5149 Aug 09 j 06:58	21° <del>Π</del> 19'10	
opposition	-5155 Nov 07 j 22:52	9° <del>Υ</del> 02'26	-2°00'-5	retrograde	-5149 Nov 15 j 16:25	28° <del>Π</del> 15'12	
min. Earth dist.	-5155 Nov 07 j 07:11	9° <del>Υ</del> 05'41	8.09324 AU	opposition	-5148 Jan 23 j 06:44	24° <del>Π</del> 58'14	1°39'20
direct	-5154 Jan 14 j 11:48	5° <del>Υ</del> 32'22		min. Earth dist.	-5148 Jan 23 j 06:03	24° <del>Π</del> 58'22	8.99229 AU
evening set	-5154 Apr 30 j 19:59	13° <del>Υ</del> 45'19		direct	-5148 Apr 03 j 14:17	21° <del>Π</del> 35'16	
				evening set	-5148 Jul 17 j 00:52	28° <del>Π</del> 49'09	
conjunction	-5154 May 18 j 22:16	16° <del>Υ</del> 03'30	-1°-22'-34		-5148 Jul 27 j 05:31	0° <del>☾</del>	
minimum elong	-5154 May 18 j 22:19	16° <del>Υ</del> 03'31	1°22'31	conjunction	-5148 Aug 03 j 01:24	0° <del>☾</del> 47'58	1°33'08
max. Earth dist.	-5154 May 19 j 18:40	16° <del>Υ</del> 10'02	10.16219 AU	minimum elong	-5148 Aug 03 j 01:21	0° <del>☾</del> 47'57	1°33'25
morning rise	-5154 Jun 05 j 21:25	18° <del>Υ</del> 20'38		max. Earth dist.	-5148 Aug 02 j 23:37	0° <del>☾</del> 47'26	11.04941 AU
retrograde	-5154 Sep 16 j 03:29	26° <del>Υ</del> 13'49		morning rise	-5148 Aug 19 j 21:12	2° <del>☾</del> 45'24	
opposition	-5154 Nov 21 j 17:20	22° <del>Υ</del> 48'02	-1°-24'-45	retrograde	-5148 Nov 26 j 03:05	9° <del>☾</del> 35'34	
min. Earth dist.	-5154 Nov 21 j 03:01	22° <del>Υ</del> 50'57	8.23541 AU	opposition	-5147 Feb 03 j 04:13	6° <del>☾</del> 19'37	2°06'19
direct	-5153 Jan 28 j 23:29	19° <del>Υ</del> 18'45		min. Earth dist.	-5147 Feb 03 j 06:47	6° <del>☾</del> 19'08	9.10106 AU
evening set	-5153 May 15 j 07:56	27° <del>Υ</del> 21'54		direct	-5147 Apr 15 j 20:35	2° <del>☾</del> 57'53	
				evening set	-5147 Jul 28 j 16:27	10° <del>☾</del> 04'58	
conjunction	-5153 Jun 02 j 07:41	29° <del>Υ</del> 37'00	0°-52'-41				
minimum elong	-5153 Jun 02 j 07:44	29° <del>Υ</del> 37'01	0°52'34	conjunction	-5147 Aug 14 j 12:18	12° <del>☾</del> 01'28	1°53'15
max. Earth dist.	-5153 Jun 03 j 01:20	29° <del>Υ</del> 42'33	10.31315 AU	minimum elong	-5147 Aug 14 j 12:15	12° <del>☾</del> 01'27	1°53'32
	-5153 Jun 05 j 08:44	0° <del>℞</del>		max. Earth dist.	-5147 Aug 14 j 06:45	11° <del>☾</del> 59'51	11.14478 AU
morning rise	-5153 Jun 20 j 03:27	1° <del>℞</del> 50'46		morning rise	-5147 Aug 31 j 03:48	13° <del>☾</del> 56'44	
retrograde	-5153 Sep 29 j 05:57	9° <del>℞</del> 29'50		retrograde	-5147 Dec 07 j 10:32	20° <del>☾</del> 43'04	
opposition	-5153 Dec 05 j 02:44	6° <del>℞</del> 06'05	0°-46'-3	opposition	-5146 Feb 14 j 22:05	17° <del>☾</del> 27'47	2°27'59
min. Earth dist.	-5153 Dec 04 j 13:56	6° <del>℞</del> 08'39	8.39172 AU	min. Earth dist.	-5146 Feb 15 j 03:22	17° <del>☾</del> 26'48	9.18374 AU
direct	-5152 Feb 12 j 02:21	2° <del>℞</del> 37'52		direct	-5146 Apr 27 j 19:13	14° <del>☾</del> 07'10	
evening set	-5152 May 28 j 06:58	10° <del>℞</del> 30'22		evening set	-5146 Aug 09 j 01:12	21° <del>☾</del> 08'50	
conjunction	-5152 Jun 15 j 03:12	12° <del>℞</del> 42'05	0°-20'-57	conjunction	-5146 Aug 25 j 17:00	23° <del>☾</del> 03'31	2°08'50
minimum elong	-5152 Jun 15 j 03:12	12° <del>℞</del> 42'05	0°20'46	minimum elong	-5146 Aug 25 j 16:58	23° <del>☾</del> 03'30	2°09'06
max. Earth dist.	-5152 Jun 15 j 17:46	12° <del>℞</del> 46'35	10.47364 AU	max. Earth dist.	-5146 Aug 25 j 08:40	23° <del>☾</del> 01'06	11.21309 AU
morning rise	-5152 Jul 02 j 18:45	14° <del>℞</del> 52'17		morning rise	-5146 Sep 11 j 04:53	24° <del>☾</del> 57'10	
	-5152 Jul 03 j 20:15	15° <del>℞</del>			-5146 Nov 02 j 16:49	0° <del>♈</del>	
retrograde	-5152 Oct 10 j 20:53	22° <del>℞</del> 18'06		retrograde	-5146 Dec 18 j 17:55	1° <del>♈</del> 41'35	
opposition	-5152 Dec 17 j 03:07	18° <del>℞</del> 56'21	0°-6'-28		-5145 Feb 04 j 09:13	30° <del>℞</del> 8	
min. Earth dist.	-5152 Dec 16 j 16:07	18° <del>℞</del> 58'31	8.55351 AU	opposition	-5145 Feb 26 j 13:59	28° <del>☾</del> 26'37	2°43'55
asc. node	-5151 Feb 17 j 14:45	15° <del>℞</del> 32'03		min. Earth dist.	-5145 Feb 26 j 22:30	28° <del>☾</del> 25'04	9.23842 AU
direct	-5151 Feb 24 j 20:26	15° <del>℞</del> 29'23		direct	-5145 May 09 j 13:09	25° <del>☾</del> 06'55	
evening set	-5151 Jun 10 j 16:58	23° <del>℞</del> 11'08			-5145 Aug 01 j 02:09	0° <del>♈</del>	
				evening set	-5145 Aug 20 j 04:41	2° <del>♈</del> 04'31	
conjunction	-5151 Jun 28 j 08:54	25° <del>℞</del> 19'21	0°10'53				
minimum elong	-5151 Jun 28 j 08:54	25° <del>℞</del> 19'21	0°11'08	conjunction	-5145 Sep 05 j 17:03	3° <del>♈</del> 57'57	2°19'32
behind sun begin	-5151 Jun 28 j 03:35	25° <del>℞</del> 17'45		minimum elong	-5145 Sep 05 j 17:01	3° <del>♈</del> 57'57	2°19'48
behind sun end	-5151 Jun 28 j 14:13	25° <del>℞</del> 20'57		max. Earth dist.	-5145 Sep 05 j 05:10	3° <del>♈</del> 54'31	11.25281 AU
max. Earth dist.	-5151 Jun 28 j 20:21	25° <del>℞</del> 22'50	10.63505 AU	morning rise	-5145 Sep 22 j 02:22	5° <del>♈</del> 50'34	
morning rise	-5151 Jul 15 j 19:36	27° <del>℞</del> 25'58		retrograde	-5145 Dec 29 j 22:40	12° <del>♈</del> 34'52	
	-5151 Aug 07 j 08:14	0° <del>♈</del>		opposition	-5144 Mar 09 j 04:51	9° <del>♈</del> 19'51	2°53'51
retrograde	-5151 Oct 23 j 03:28	4° <del>♈</del> 40'01					

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 22

Attention, astronomical year style is used: The year -5144 in astronomical counting style is the year 5145 BCE in historical counting style.

min. Earth dist.	-5144 Mar 09 j 16:43	9°Ω17'41	9.26383 AU	evening set	-5138 Nov 04 j 06:26	20°Ω05'31	
direct	-5144 May 20 j 02:07	6°Ω00'48					
evening set	-5144 Aug 30 j 04:42	12°Ω55'47		conjunction	-5138 Nov 20 j 22:24	22°Ω06'25	1°10'41
				minimum elong	-5138 Nov 20 j 22:27	22°Ω06'26	1°10'36
conjunction	-5144 Sep 15 j 14:31	14°Ω48'31	2°25'10	max. Earth dist.	-5138 Nov 20 j 05:32	22°Ω01'17	10.75598 AU
minimum elong	-5144 Sep 15 j 14:31	14°Ω48'31	2°25'23	morning rise	-5138 Dec 07 j 17:33	24°Ω08'25	
max. Earth dist.	-5144 Sep 14 j 23:21	14°Ω44'08	11.26308 AU		-5137 Feb 04 j 13:42	0°ℳ	
	-5144 Sep 17 j 06:21	15°Ω		retrograde	-5137 Mar 22 j 03:03	1°ℳ39'25	
morning rise	-5144 Oct 01 j 22:19	16°Ω40'43			-5137 May 07 j 19:16	30°℞Ω	
retrograde	-5143 Jan 09 j 05:58	23°Ω26'41		opposition	-5137 May 31 j 19:09	28°Ω15'57	1°09'38
opposition	-5143 Mar 20 j 19:48	20°Ω11'14	2°57'37	min. Earth dist.	-5137 Jun 01 j 08:34	28°Ω13'24	8.68034 AU
min. Earth dist.	-5143 Mar 21 j 09:39	20°Ω08'43	9.25934 AU	direct	-5137 Aug 08 j 16:45	24°Ω55'49	
direct	-5143 May 31 j 15:05	16°Ω52'38			-5137 Oct 28 j 06:59	0°ℳ	
evening set	-5143 Sep 10 j 02:47	23°Ω46'23		evening set	-5137 Nov 16 j 09:21	2°ℳ13'34	
conjunction	-5143 Sep 26 j 11:14	25°Ω39'02	2°25'36	conjunction	-5137 Dec 03 j 05:04	4°ℳ17'35	0°42'13
minimum elong	-5143 Sep 26 j 11:14	25°Ω39'02	2°25'46	minimum elong	-5137 Dec 03 j 05:06	4°ℳ17'35	0°42'04
max. Earth dist.	-5143 Sep 25 j 18:48	25°Ω34'17	11.24368 AU	max. Earth dist.	-5137 Dec 02 j 13:28	4°ℳ12'45	10.60388 AU
morning rise	-5143 Oct 12 j 18:20	27°Ω31'23		morning rise	-5137 Dec 20 j 04:58	6°ℳ22'58	
	-5143 Nov 04 j 16:50	0°ℳ		retrograde	-5136 Apr 03 j 13:35	14°ℳ06'18	
retrograde	-5142 Jan 20 j 17:30	4°ℳ20'46		opposition	-5136 Jun 12 j 22:24	10°ℳ41'04	0°32'39
opposition	-5142 Apr 01 j 12:31	1°ℳ04'34	2°55'04	min. Earth dist.	-5136 Jun 13 j 09:57	10°ℳ38'50	8.52420 AU
min. Earth dist.	-5142 Apr 02 j 03:20	1°ℳ01'52	9.22516 AU	direct	-5136 Aug 20 j 03:20	7°ℳ19'59	
	-5142 Apr 16 j 13:55	30°℞Ω		evening set	-5136 Nov 27 j 23:48	14°ℳ46'59	
direct	-5142 Jun 12 j 01:37	27°Ω46'14			-5136 Nov 29 j 18:01	15°ℳ	
	-5142 Aug 05 j 00:44	0°ℳ					
evening set	-5142 Sep 21 j 00:42	4°ℳ40'09		conjunction	-5136 Dec 14 j 23:42	16°ℳ54'23	0°10'52
				minimum elong	-5136 Dec 14 j 23:43	16°ℳ54'24	0°10'40
conjunction	-5142 Oct 07 j 08:45	6°ℳ33'19	2°20'46	behind sun begin	-5136 Dec 14 j 18:12	16°ℳ52'41	
minimum elong	-5142 Oct 07 j 08:47	6°ℳ33'19	2°20'54	behind sun end	-5136 Dec 15 j 05:13	16°ℳ56'06	
max. Earth dist.	-5142 Oct 06 j 15:22	6°ℳ28'15	11.19528 AU	max. Earth dist.	-5136 Dec 14 j 10:35	16°ℳ50'17	10.44633 AU
morning rise	-5142 Oct 23 j 16:16	8°ℳ26'26		morning rise	-5135 Jan 01 j 04:33	19°ℳ03'23	
retrograde	-5141 Feb 01 j 08:59	15°ℳ20'58		retrograde	-5135 Apr 17 j 11:21	26°ℳ59'44	
opposition	-5141 Apr 13 j 08:11	12°ℳ03'42	2°46'10	desc. node	-5135 Apr 19 j 08:48	26°ℳ59'33	
min. Earth dist.	-5141 Apr 14 j 00:05	12°ℳ00'48	9.16246 AU	opposition	-5135 Jun 26 j 10:27	23°ℳ32'45	0°-7'-21
direct	-5141 Jun 23 j 12:05	8°ℳ45'25		min. Earth dist.	-5135 Jun 26 j 19:26	23°ℳ30'59	8.36668 AU
evening set	-5141 Oct 02 j 00:38	15°ℳ41'02		direct	-5135 Sep 02 j 00:02	20°ℳ10'35	
				evening set	-5135 Dec 11 j 03:28	27°ℳ47'58	
conjunction	-5141 Oct 18 j 09:10	17°ℳ35'17	2°10'41				
minimum elong	-5141 Oct 18 j 09:12	17°ℳ35'18	2°10'46	conjunction	-5135 Dec 28 j 07:52	29°ℳ58'53	0°-22'-5
max. Earth dist.	-5141 Oct 17 j 13:59	17°ℳ29'40	11.11950 AU	minimum elong	-5135 Dec 28 j 07:51	29°ℳ58'53	0°22'20
morning rise	-5141 Nov 03 j 18:19	19°ℳ29'48		max. Earth dist.	-5135 Dec 27 j 22:54	29°ℳ56'02	10.29107 AU
retrograde	-5140 Feb 13 j 06:53	26°ℳ31'06			-5135 Dec 28 j 11:19	0°♂	
opposition	-5140 Apr 24 j 07:46	23°ℳ12'34	2°30'56	morning rise	-5134 Jan 14 j 17:34	2°♂11'33	
min. Earth dist.	-5140 Apr 25 j 00:55	23°ℳ09'25	9.07328 AU	retrograde	-5134 May 01 j 20:20	10°♂20'52	
direct	-5140 Jul 04 j 00:40	19°ℳ54'05		opposition	-5134 Jul 10 j 07:14	6°♂52'16	0°-48'-31
evening set	-5140 Oct 12 j 04:14	26°ℳ52'56		min. Earth dist.	-5134 Jul 10 j 12:41	6°♂51'11	8.21599 AU
				direct	-5134 Sep 15 j 05:53	3°♂28'54	
conjunction	-5140 Oct 28 j 14:19	28°ℳ48'53	1°55'28	evening set	-5134 Dec 24 j 21:21	11°♂17'25	
minimum elong	-5140 Oct 28 j 14:22	28°ℳ48'54	1°55'30				
max. Earth dist.	-5140 Oct 27 j 18:44	28°ℳ43'05	11.01871 AU	conjunction	-5133 Jan 11 j 06:15	13°♂31'46	0°-54'-48
	-5140 Nov 07 j 14:50	0°Ω		minimum elong	-5133 Jan 11 j 06:13	13°♂31'46	0°55'06
morning rise	-5140 Nov 14 j 02:04	0°Ω45'23		max. Earth dist.	-5133 Jan 11 j 02:23	13°♂30'31	10.14648 AU
retrograde	-5139 Feb 24 j 10:28	7°Ω55'06		morning rise	-5133 Jan 28 j 20:29	15°♂47'56	
opposition	-5139 May 06 j 12:45	4°Ω35'03	2°09'31	retrograde	-5133 May 16 j 15:07	24°♂09'18	
min. Earth dist.	-5139 May 07 j 05:42	4°Ω31'55	8.96044 AU	opposition	-5133 Jul 24 j 12:15	20°♂39'20	-1°-28'-25
direct	-5139 Jul 15 j 16:35	1°Ω16'13		min. Earth dist.	-5133 Jul 24 j 13:17	20°♂39'07	8.08062 AU
evening set	-5139 Oct 23 j 13:22	8°Ω19'49		direct	-5133 Sep 28 j 22:04	17°♂14'43	
max. Earth dist.	-5139 Nov 08 j 07:47	10°Ω12'31	10.89609 AU	evening set	-5132 Jan 08 j 05:40	25°♂14'26	
conjunction	-5139 Nov 09 j 02:02	10°Ω18'00	1°35'20	conjunction	-5132 Jan 25 j 18:44	27°♂31'57	-1°-25'-17
minimum elong	-5139 Nov 09 j 02:05	10°Ω18'01	1°35'18	minimum elong	-5132 Jan 25 j 18:41	27°♂31'56	1°25'35
morning rise	-5139 Nov 25 j 17:05	12°Ω17'00		max. Earth dist.	-5132 Jan 25 j 20:03	27°♂32'23	10.02117 AU
retrograde	-5138 Mar 09 j 01:41	19°Ω36'43		morning rise	-5132 Feb 12 j 12:56	29°♂51'11	
opposition	-5138 May 19 j 00:15	16°Ω15'00	1°42'14		-5132 Feb 13 j 16:22	0°♂	
min. Earth dist.	-5138 May 19 j 15:34	16°Ω12'08	8.82779 AU	retrograde	-5132 May 30 j 17:26	8°♂22'41	
direct	-5138 Jul 27 j 14:53	12°Ω55'37		opposition	-5132 Aug 07 j 00:16	4°♂51'39	-2°-4'-13



## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 23

Attention, astronomical year style is used: The year -5132 in astronomical counting style is the year 5133 BCE in historical counting style.

min. Earth dist.	-5132 Aug 06 j 20:57	4° $\overline{\text{C}}$ 52'19	7.96898 AU		-5125 Feb 01 j 16:08	0° $\Upsilon$	
direct	-5132 Oct 12 j 00:10	1° $\overline{\text{C}}$ 25'45		evening set	-5125 Apr 24 j 13:36	7° $\Upsilon$ 44'35	
evening set	-5131 Jan 22 j 03:18	9° $\overline{\text{C}}$ 35'56					
				conjunction	-5125 May 12 j 16:39	10° $\Upsilon$ 04'03	-1°-34'-43
conjunction	-5131 Feb 08 j 20:09	11° $\overline{\text{C}}$ 56'05	-1°-51'-14	minimum elong	-5125 May 12 j 16:43	10° $\Upsilon$ 04'04	1°34'41
minimum elong	-5131 Feb 08 j 20:06	11° $\overline{\text{C}}$ 56'04	1°51'32	max. Earth dist.	-5125 May 13 j 12:14	10° $\Upsilon$ 10'22	10.10141 AU
max. Earth dist.	-5131 Feb 09 j 02:34	11° $\overline{\text{C}}$ 58'13	9.92342 AU	morning rise	-5125 May 30 j 17:06	12° $\Upsilon$ 22'37	
morning rise	-5131 Feb 26 j 17:43	14° $\overline{\text{C}}$ 17'48		retrograde	-5125 Sep 10 j 13:00	20° $\Upsilon$ 22'39	
retrograde	-5131 Jun 15 j 00:49	22° $\overline{\text{C}}$ 56'22		min. Earth dist.	-5125 Nov 15 j 09:23	16° $\Upsilon$ 59'14	8.16850 AU
opposition	-5131 Aug 21 j 17:42	19° $\overline{\text{C}}$ 24'39	-2°-33'00	opposition	-5125 Nov 16 j 00:22	16° $\Upsilon$ 56'10	-1°-41'-3
min. Earth dist.	-5131 Aug 21 j 10:30	19° $\overline{\text{C}}$ 26'09	7.88846 AU	direct	-5124 Jan 22 j 22:24	13° $\Upsilon$ 26'41	
direct	-5131 Oct 26 j 10:46	15° $\overline{\text{C}}$ 57'30		evening set	-5124 May 08 j 07:25	21° $\Upsilon$ 34'42	
evening set	-5130 Feb 06 j 11:57	24° $\overline{\text{C}}$ 16'25					
				conjunction	-5124 May 26 j 08:40	23° $\Upsilon$ 51'21	-1°-6'-20
conjunction	-5130 Feb 24 j 08:11	26° $\overline{\text{C}}$ 38'32	-2°-10'-30	minimum elong	-5124 May 26 j 08:43	23° $\Upsilon$ 51'22	1°06'14
minimum elong	-5130 Feb 24 j 08:08	26° $\overline{\text{C}}$ 38'31	2°10'47	max. Earth dist.	-5124 May 27 j 03:18	23° $\Upsilon$ 57'17	10.24051 AU
max. Earth dist.	-5130 Feb 24 j 19:06	26° $\overline{\text{C}}$ 42'11	9.85977 AU	morning rise	-5124 Jun 13 j 06:04	26° $\Upsilon$ 06'46	
morning rise	-5130 Mar 14 j 08:25	29° $\overline{\text{C}}$ 01'56			-5124 Jul 16 j 22:38	0° $\text{C}$	
	-5130 Mar 21 j 19:52	0° $\approx$		retrograde	-5124 Sep 22 j 21:55	3° $\text{C}$ 52'38	
retrograde	-5130 Jun 30 j 09:53	7° $\approx$ 43'36		opposition	-5124 Nov 28 j 14:16	0° $\text{C}$ 27'57	-1°-3'-32
opposition	-5130 Sep 05 j 14:04	4° $\approx$ 11'40	-2°-52'-9	min. Earth dist.	-5124 Nov 28 j 00:51	0° $\text{C}$ 30'39	8.31494 AU
min. Earth dist.	-5130 Sep 05 j 03:59	4° $\approx$ 13'47	7.84408 AU		-5124 Dec 04 j 09:07	30° $\text{R}\Upsilon$	
direct	-5130 Nov 10 j 05:20	0° $\approx$ 43'20		direct	-5123 Feb 05 j 05:01	26° $\Upsilon$ 59'13	
evening set	-5129 Feb 22 j 04:17	9° $\approx$ 08'25			-5123 Apr 07 j 08:24	0° $\text{C}$	
				evening set	-5123 May 22 j 12:47	4° $\text{C}$ 56'58	
conjunction	-5129 Mar 12 j 03:21	11° $\approx$ 31'41	-2°-21'-21	conjunction	-5123 Jun 09 j 10:59	7° $\text{C}$ 10'23	0°-35'-10
minimum elong	-5129 Mar 12 j 03:20	11° $\approx$ 31'41	2°21'35	minimum elong	-5123 Jun 09 j 11:01	7° $\text{C}$ 10'23	0°35'02
max. Earth dist.	-5129 Mar 12 j 17:40	11° $\approx$ 36'28	9.83396 AU	max. Earth dist.	-5123 Jun 10 j 03:05	7° $\text{C}$ 15'24	10.39341 AU
morning rise	-5129 Mar 30 j 05:27	13° $\approx$ 55'52		morning rise	-5123 Jun 27 j 04:30	9° $\text{C}$ 22'20	
	-5129 Apr 07 j 11:36	15° $\approx$			-5123 Aug 20 j 01:13	15° $\text{C}$	
retrograde	-5129 Jul 15 j 16:37	22° $\approx$ 36'15		retrograde	-5123 Oct 05 j 18:22	16° $\text{C}$ 54'27	
opposition	-5129 Sep 20 j 10:36	19° $\approx$ 04'36	-2°-59'-52		-5123 Nov 22 j 15:02	15° $\text{R}\text{C}$	
min. Earth dist.	-5129 Sep 19 j 22:42	19° $\approx$ 07'06	7.83789 AU	opposition	-5123 Dec 11 j 18:57	13° $\text{C}$ 31'39	0°-24'-4
direct	-5129 Nov 25 j 05:08	15° $\approx$ 35'20		min. Earth dist.	-5123 Dec 11 j 08:05	13° $\text{C}$ 33'48	8.47116 AU
evening set	-5128 Mar 08 j 23:58	24° $\approx$ 03'28		direct	-5122 Feb 19 j 03:37	10° $\text{C}$ 03'52	
					-5122 May 11 j 08:31	15° $\text{C}$	
conjunction	-5128 Mar 27 j 01:20	26° $\approx$ 27'03	-2°-22'-47	evening set	-5122 Jun 05 j 05:07	17° $\text{C}$ 50'56	
minimum elong	-5128 Mar 27 j 01:21	26° $\approx$ 27'04	2°22'58				
max. Earth dist.	-5128 Mar 27 j 18:09	26° $\approx$ 32'40	9.84690 AU	conjunction	-5122 Jun 22 j 23:09	20° $\text{C}$ 00'52	0°-3'-14
morning rise	-5128 Apr 14 j 04:28	28° $\approx$ 51'08		minimum elong	-5122 Jun 22 j 23:10	20° $\text{C}$ 00'53	0°03'03
	-5128 Apr 23 j 02:11	0° $\text{H}$		behind sun begin	-5122 Jun 22 j 15:59	19° $\text{C}$ 58'42	
retrograde	-5128 Jul 29 j 18:09	7° $\text{H}$ 26'05		behind sun end	-5122 Jun 23 j 06:22	20° $\text{C}$ 03'04	
opposition	-5128 Oct 04 j 04:58	3° $\text{H}$ 55'12	-2°-55'-29	max. Earth dist.	-5122 Jun 23 j 11:27	20° $\text{C}$ 04'38	10.55150 AU
min. Earth dist.	-5128 Oct 03 j 15:35	3° $\text{H}$ 58'01	7.86989 AU	morning rise	-5122 Jul 10 j 12:09	22° $\text{C}$ 09'16	
direct	-5128 Dec 09 j 07:41	0° $\text{H}$ 25'22		asc. node	-5122 Jul 31 j 00:39	24° $\text{C}$ 31'30	
evening set	-5127 Mar 24 j 18:36	8° $\text{H}$ 53'05		retrograde	-5122 Oct 18 j 03:54	29° $\text{C}$ 28'53	
				opposition	-5122 Dec 24 j 15:05	26° $\text{C}$ 07'51	0°15'06
conjunction	-5127 Apr 11 j 21:34	11° $\text{H}$ 16'08	-2°-14'-46	min. Earth dist.	-5122 Dec 24 j 07:00	26° $\text{C}$ 09'26	8.62882 AU
minimum elong	-5127 Apr 11 j 21:37	11° $\text{H}$ 16'09	2°14'53	direct	-5121 Mar 04 j 16:38	22° $\text{C}$ 41'13	
max. Earth dist.	-5127 Apr 12 j 16:17	11° $\text{H}$ 22'20	9.89804 AU		-5121 Jun 15 j 20:07	0° $\text{II}$	
morning rise	-5127 Apr 30 j 00:54	13° $\text{H}$ 39'12		evening set	-5121 Jun 18 j 08:21	0° $\text{II}$ 17'45	
retrograde	-5127 Aug 13 j 10:55	22° $\text{H}$ 04'59					
opposition	-5127 Oct 18 j 18:39	18° $\text{H}$ 35'18	-2°-39'-36	conjunction	-5121 Jul 05 j 21:35	2° $\text{II}$ 24'13	0°27'59
min. Earth dist.	-5127 Oct 18 j 04:07	18° $\text{H}$ 38'20	7.93872 AU	minimum elong	-5121 Jul 05 j 21:33	2° $\text{II}$ 24'13	0°28'14
direct	-5127 Dec 24 j 09:52	15° $\text{H}$ 05'14		max. Earth dist.	-5121 Jul 06 j 05:41	2° $\text{II}$ 26'40	10.70682 AU
evening set	-5126 Apr 09 j 08:25	23° $\text{H}$ 29'06		morning rise	-5121 Jul 23 j 05:39	4° $\text{II}$ 29'06	
				retrograde	-5121 Oct 30 j 05:10	11° $\text{II}$ 37'56	
conjunction	-5126 Apr 27 j 12:01	25° $\text{H}$ 50'45	-1°-58'-12	opposition	-5120 Jan 06 j 03:14	8° $\text{II}$ 18'28	0°52'11
minimum elong	-5126 Apr 27 j 12:05	25° $\text{H}$ 50'47	1°58'15	min. Earth dist.	-5120 Jan 05 j 21:23	8° $\text{II}$ 19'36	8.78039 AU
max. Earth dist.	-5126 Apr 28 j 07:37	25° $\text{H}$ 57'10	9.98471 AU	direct	-5120 Mar 16 j 19:14	4° $\text{II}$ 53'06	
morning rise	-5126 May 15 j 14:27	28° $\text{H}$ 11'56		evening set	-5120 Jun 29 j 23:35	12° $\text{II}$ 19'47	
	-5126 May 29 j 23:40	0° $\Upsilon$					
retrograde	-5126 Aug 27 j 16:57	6° $\Upsilon$ 25'41		conjunction	-5120 Jul 17 j 07:46	14° $\text{II}$ 22'58	0°56'59
min. Earth dist.	-5126 Nov 01 j 10:22	3° $\Upsilon$ 00'37	8.04041 AU	minimum elong	-5120 Jul 17 j 07:44	14° $\text{II}$ 22'57	0°57'15
opposition	-5126 Nov 02 j 01:32	2° $\Upsilon$ 57'29	-2°-13'-59	max. Earth dist.	-5120 Jul 17 j 12:24	14° $\text{II}$ 24'21	10.85240 AU
	-5126 Dec 14 j 21:07	30° $\text{R}\text{H}$		morning rise	-5120 Aug 03 j 10:42	16° $\text{II}$ 24'36	
direct	-5125 Jan 08 j 07:26	29° $\text{H}$ 27'32					

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 24

Attention, astronomical year style is used: The year -5120 in astronomical counting style is the year 5121 BCE in historical counting style.

retrograde	-5120 Nov 09 j 22:47	23° $\Pi$ 24'29		retrograde	-5113 Jan 15 j 23:11	29° $\Omega$ 41'45	
opposition	-5119 Jan 17 j 08:20	20° $\Pi$ 06'24	1°25'49	opposition	-5113 Mar 27 j 16:12	26° $\Omega$ 26'09	2°56'52
min. Earth dist.	-5119 Jan 17 j 05:04	20° $\Pi$ 07'02	8.91929 AU	min. Earth dist.	-5113 Mar 28 j 05:46	26° $\Omega$ 23'41	9.25849 AU
direct	-5119 Mar 29 j 12:38	16° $\Pi$ 42'20		direct	-5113 Jun 07 j 07:22	23° $\Omega$ 08'02	
evening set	-5119 Jul 12 j 04:06	24° $\Pi$ 00'13		evening set	-5113 Sep 16 j 13:00	0° $\eta$ 01'02	
					-5113 Sep 16 j 09:19	0° $\eta$	
conjunction	-5119 Jul 29 j 07:11	26° $\Pi$ 00'24	1°22'52	conjunction	-5113 Oct 02 j 20:55	1° $\eta$ 53'42	2°23'31
minimum elong	-5119 Jul 29 j 07:09	26° $\Pi$ 00'23	1°23'08	minimum elong	-5113 Oct 02 j 20:56	1° $\eta$ 53'42	2°23'39
max. Earth dist.	-5119 Jul 29 j 08:45	26° $\Pi$ 00'51	10.98230 AU	max. Earth dist.	-5113 Oct 02 j 04:26	1° $\eta$ 48'55	11.23818 AU
morning rise	-5119 Aug 15 j 05:03	27° $\Pi$ 59'07		morning rise	-5113 Oct 19 j 04:12	3° $\eta$ 46'13	
	-5119 Sep 02 j 07:20	0° $\Xi$		retrograde	-5112 Jan 27 j 11:10	10° $\eta$ 37'24	
retrograde	-5119 Nov 21 j 12:35	4° $\Xi$ 52'03		opposition	-5112 Apr 07 j 09:50	7° $\eta$ 21'04	2°50'46
opposition	-5118 Jan 29 j 08:01	1° $\Xi$ 35'09	1°55'01	min. Earth dist.	-5112 Apr 08 j 00:52	7° $\eta$ 18'20	9.21485 AU
min. Earth dist.	-5118 Jan 29 j 08:07	1° $\Xi$ 35'08	9.04016 AU	direct	-5112 Jun 17 j 18:14	4° $\eta$ 03'15	
	-5118 Feb 20 j 09:09	30° $\mathbb{R}$ $\Pi$		evening set	-5112 Sep 26 j 11:24	10° $\eta$ 57'07	
direct	-5118 Apr 10 j 21:05	28° $\Pi$ 12'22		conjunction	-5112 Oct 12 j 19:31	12° $\eta$ 50'34	2°15'46
	-5118 May 29 j 07:50	0° $\Xi$		minimum elong	-5112 Oct 12 j 19:33	12° $\eta$ 50'34	2°15'52
evening set	-5118 Jul 23 j 23:19	5° $\Xi$ 22'38		max. Earth dist.	-5112 Oct 12 j 02:25	12° $\eta$ 45'35	11.18047 AU
conjunction	-5118 Aug 09 j 21:22	7° $\Xi$ 20'14	1°44'53	morning rise	-5112 Oct 29 j 03:41	14° $\eta$ 44'07	
minimum elong	-5118 Aug 09 j 21:19	7° $\Xi$ 20'14	1°45'09	retrograde	-5111 Feb 07 j 06:20	21° $\eta$ 41'09	
max. Earth dist.	-5118 Aug 09 j 19:05	7° $\Xi$ 19'35	11.09180 AU	opposition	-5111 Apr 19 j 06:50	18° $\eta$ 23'47	2°38'21
morning rise	-5118 Aug 26 j 14:40	9° $\Xi$ 16'31		min. Earth dist.	-5111 Apr 19 j 22:06	18° $\eta$ 21'00	9.14276 AU
retrograde	-5118 Dec 02 j 19:53	16° $\Xi$ 04'29		direct	-5111 Jun 29 j 06:04	15° $\eta$ 06'03	
opposition	-5117 Feb 10 j 03:26	12° $\Xi$ 48'28	2°19'05	evening set	-5111 Oct 07 j 12:37	22° $\eta$ 02'13	
min. Earth dist.	-5117 Feb 10 j 07:13	12° $\Xi$ 47'46	9.13879 AU	conjunction	-5111 Oct 23 j 21:52	23° $\eta$ 57'02	2°02'51
direct	-5117 Apr 22 j 21:59	9° $\Xi$ 26'55		minimum elong	-5111 Oct 23 j 21:54	23° $\eta$ 57'03	2°02'54
evening set	-5117 Aug 04 j 10:49	16° $\Xi$ 30'56		max. Earth dist.	-5111 Oct 23 j 04:12	23° $\eta$ 51'50	11.09541 AU
conjunction	-5117 Aug 21 j 04:17	18° $\Xi$ 26'24	2°02'30	morning rise	-5111 Nov 09 j 08:00	25° $\eta$ 52'14	
minimum elong	-5117 Aug 21 j 04:15	18° $\Xi$ 26'24	2°02'47		-5111 Dec 19 j 00:17	0° $\underline{\Omega}$	
max. Earth dist.	-5117 Aug 20 j 21:42	18° $\Xi$ 24'30	11.17737 AU	retrograde	-5110 Feb 19 j 07:21	2° $\underline{\Omega}$ 56'44	
morning rise	-5117 Sep 06 j 17:51	20° $\Xi$ 20'47			-5110 Apr 26 j 09:24	30° $\mathbb{R}$ $\eta$	
retrograde	-5117 Dec 14 j 01:45	27° $\Xi$ 05'45		opposition	-5110 May 01 j 08:43	29° $\eta$ 38'04	2°19'44
opposition	-5116 Feb 21 j 19:39	23° $\Xi$ 50'18	2°37'35	min. Earth dist.	-5110 May 02 j 00:26	29° $\eta$ 35'10	9.04422 AU
min. Earth dist.	-5116 Feb 22 j 02:03	23° $\Xi$ 49'08	9.21190 AU	direct	-5110 Jul 10 j 18:41	26° $\eta$ 20'08	
direct	-5116 May 03 j 18:58	20° $\Xi$ 29'51			-5110 Sep 17 j 22:36	0° $\underline{\Omega}$	
evening set	-5116 Aug 14 j 16:07	27° $\Xi$ 29'01		evening set	-5110 Oct 18 j 18:28	3° $\underline{\Omega}$ 20'09	
conjunction	-5116 Aug 31 j 05:56	29° $\Xi$ 22'56	2°15'23	max. Earth dist.	-5110 Nov 03 j 10:52	5° $\underline{\Omega}$ 11'18	10.98528 AU
minimum elong	-5116 Aug 31 j 05:54	29° $\Xi$ 22'55	2°15'39	conjunction	-5110 Nov 04 j 05:39	5° $\underline{\Omega}$ 16'53	1°44'56
max. Earth dist.	-5116 Aug 30 j 20:39	29° $\Xi$ 20'15	11.23622 AU	minimum elong	-5110 Nov 04 j 05:42	5° $\underline{\Omega}$ 16'54	1°44'56
	-5116 Sep 05 j 14:31	0° $\Omega$		morning rise	-5110 Nov 20 j 18:55	7° $\underline{\Omega}$ 14'19	
morning rise	-5116 Sep 16 j 16:26	1° $\Omega$ 15'56		retrograde	-5109 Mar 03 j 16:44	14° $\underline{\Omega}$ 27'53	
retrograde	-5116 Dec 24 j 07:38	7° $\Omega$ 59'46		opposition	-5109 May 13 j 16:25	11° $\underline{\Omega}$ 07'42	1°55'09
opposition	-5115 Mar 04 j 10:15	4° $\Omega$ 44'36	2°50'10	min. Earth dist.	-5109 May 14 j 08:42	11° $\underline{\Omega}$ 04'40	8.92189 AU
min. Earth dist.	-5115 Mar 04 j 18:42	4° $\Omega$ 43'03	9.25697 AU	direct	-5109 Jul 22 j 12:57	7° $\underline{\Omega}$ 49'15	
direct	-5115 May 15 j 09:52	1° $\Omega$ 25'08		evening set	-5109 Oct 30 j 07:05	14° $\underline{\Omega}$ 54'47	
evening set	-5115 Aug 25 j 17:05	8° $\Omega$ 20'48		conjunction	-5109 Nov 15 j 21:08	16° $\underline{\Omega}$ 54'00	1°22'22
conjunction	-5115 Sep 11 j 04:03	10° $\Omega$ 13'43	2°23'16	minimum elong	-5109 Nov 15 j 21:11	16° $\underline{\Omega}$ 54'01	1°22'18
minimum elong	-5115 Sep 11 j 04:02	10° $\Omega$ 13'43	2°23'30	max. Earth dist.	-5109 Nov 15 j 02:11	16° $\underline{\Omega}$ 48'17	10.85315 AU
max. Earth dist.	-5115 Sep 10 j 16:48	10° $\Omega$ 10'29	11.26636 AU	morning rise	-5109 Dec 02 j 14:16	18° $\underline{\Omega}$ 54'11	
morning rise	-5115 Sep 27 j 12:16	12° $\Omega$ 05'56		retrograde	-5108 Mar 15 j 10:29	26° $\underline{\Omega}$ 18'22	
	-5115 Oct 24 j 20:32	15° $\Omega$		opposition	-5108 May 25 j 06:50	22° $\underline{\Omega}$ 56'27	1°25'01
retrograde	-5114 Jan 04 j 14:35	18° $\Omega$ 50'29		min. Earth dist.	-5108 May 25 j 22:44	22° $\underline{\Omega}$ 53'28	8.77976 AU
opposition	-5114 Mar 16 j 00:40	15° $\Omega$ 35'16	2°56'39	direct	-5108 Aug 02 j 12:20	19° $\underline{\Omega}$ 37'18	
min. Earth dist.	-5114 Mar 16 j 11:37	15° $\Omega$ 33'16	9.27261 AU	evening set	-5108 Nov 10 j 04:22	26° $\underline{\Omega}$ 50'00	
	-5114 Mar 24 j 03:38	15° $\mathbb{R}$ $\Omega$		conjunction	-5108 Nov 26 j 22:06	28° $\underline{\Omega}$ 52'09	0°55'38
direct	-5114 May 26 j 21:43	12° $\Omega$ 16'35		minimum elong	-5108 Nov 26 j 22:08	28° $\underline{\Omega}$ 52'10	0°55'31
	-5114 Jul 26 j 09:17	15° $\Omega$		max. Earth dist.	-5108 Nov 26 j 05:03	28° $\underline{\Omega}$ 46'56	10.70387 AU
evening set	-5114 Sep 05 j 15:32	19° $\Omega$ 10'13			-5108 Dec 06 j 03:51	0° $\mathbb{M}$	
max. Earth dist.	-5114 Sep 21 j 10:16	20° $\Omega$ 58'37	11.26700 AU	morning rise	-5108 Dec 13 j 19:33	0° $\mathbb{M}$ 55'33	
conjunction	-5114 Sep 22 j 00:27	21° $\Omega$ 02'42	2°26'01	retrograde	-5107 Mar 28 j 15:06	8° $\mathbb{M}$ 31'41	
minimum elong	-5114 Sep 22 j 00:27	21° $\Omega$ 02'42	2°26'12	opposition	-5107 Jun 07 j 05:18	5° $\mathbb{M}$ 07'54	0°50'04
morning rise	-5114 Oct 08 j 07:38	22° $\Omega$ 54'45					

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 25

Attention, astronomical year style is used: The year -5107 in astronomical counting style is the year 5108 BCE in historical counting style.

min. Earth dist.	-5107 Jun 07 j 18:57	5°♄05'18	8.62387 AU	minimum elong	-5101 Feb 17 j 07:36	19°♄51'04	2°02'36
direct	-5107 Aug 14 j 19:44	1°♄47'49		max. Earth dist.	-5101 Feb 17 j 14:37	19°♄53'25	9.87811 AU
evening set	-5107 Nov 22 j 12:14	9°♄09'08		morning rise	-5101 Mar 07 j 06:47	22°♄13'51	
					-5101 May 22 j 18:00	0°≈	
conjunction	-5107 Dec 09 j 10:07	11°♄14'36	0°25'35	retrograde	-5101 Jun 23 j 10:40	0°≈54'42	
minimum elong	-5107 Dec 09 j 10:08	11°♄14'37	0°25'24		-5101 Jul 25 j 06:47	30°♄	
max. Earth dist.	-5107 Dec 08 j 19:35	11°♄10'05	10.54423 AU	opposition	-5101 Aug 29 j 21:56	27°♄22'20	-2°-44'-28
morning rise	-5107 Dec 26 j 12:18	13°♄21'32		min. Earth dist.	-5101 Aug 29 j 14:37	27°♄23'52	7.84985 AU
	-5106 Jan 09 j 06:48	15°♄		direct	-5101 Nov 03 j 14:50	23°♄54'00	
retrograde	-5106 Apr 11 j 08:39	21°♄10'32			-5100 Jan 28 j 03:54	0°≈	
opposition	-5106 Jun 20 j 12:19	17°♄44'48	0°11'25	evening set	-5100 Feb 15 j 01:38	2°≈16'48	
min. Earth dist.	-5106 Jun 20 j 23:00	17°♄42'44	8.46169 AU				
	-5106 Jul 31 j 23:56	15°♄		conjunction	-5100 Mar 03 j 23:33	4°≈39'47	-2°-17'-21
direct	-5106 Aug 27 j 10:17	14°♄23'34		minimum elong	-5100 Mar 03 j 23:31	4°≈39'46	2°17'36
	-5106 Sep 22 j 10:04	15°♄		max. Earth dist.	-5100 Mar 04 j 11:49	4°≈43'53	9.82799 AU
desc. node	-5106 Oct 05 j 20:43	15°♄45'59		morning rise	-5100 Mar 22 j 00:51	7°≈03'52	
evening set	-5106 Dec 05 j 08:46	21°♄54'49			-5100 Jun 08 j 23:12	15°≈	
				retrograde	-5100 Jul 07 j 19:02	15°≈46'02	
conjunction	-5106 Dec 22 j 10:58	24°♄03'47	0°-6'-44		-5100 Aug 05 j 16:41	15°≈	
minimum elong	-5106 Dec 22 j 10:57	24°♄03'47	0°06'58	opposition	-5100 Sep 12 j 18:44	12°≈13'36	-2°-57'-49
behind sun begin	-5106 Dec 22 j 04:20	24°♄01'43		min. Earth dist.	-5100 Sep 12 j 07:42	12°≈15'55	7.82042 AU
behind sun end	-5106 Dec 22 j 17:34	24°♄05'51		direct	-5100 Nov 17 j 12:11	8°≈44'11	
max. Earth dist.	-5106 Dec 21 j 23:04	24°♄00'02	10.38201 AU		-5099 Feb 12 j 14:33	15°≈	
morning rise	-5105 Jan 08 j 18:08	26°♄14'25		evening set	-5099 Mar 01 j 20:13	17°≈11'52	
	-5105 Feb 10 j 05:55	0°♄					
retrograde	-5105 Apr 25 j 12:04	4°♄16'32		conjunction	-5099 Mar 19 j 20:49	19°≈35'39	-2°-23'-21
opposition	-5105 Jul 04 j 03:59	0°♄48'57	0°-29'-18	minimum elong	-5099 Mar 19 j 20:49	19°≈35'39	2°23'33
min. Earth dist.	-5105 Jul 04 j 11:35	0°♄47'27	8.30140 AU	max. Earth dist.	-5099 Mar 20 j 13:24	19°≈41'12	9.81887 AU
	-5105 Jul 14 j 14:32	30°♄		morning rise	-5099 Apr 06 j 23:32	22°≈00'08	
direct	-5105 Sep 09 j 09:24	27°♄26'21			-5099 Jun 26 j 14:42	0°♄	
	-5105 Nov 02 j 11:39	0°♄		retrograde	-5099 Jul 22 j 23:55	0°♄39'02	
evening set	-5105 Dec 18 j 19:00	5°♄08'35			-5099 Aug 18 j 09:47	30°♄	
				opposition	-5099 Sep 27 j 14:39	27°≈07'03	-2°-59'-13
conjunction	-5104 Jan 05 j 01:33	7°♄21'05	0°-39'-38	min. Earth dist.	-5099 Sep 27 j 01:02	27°≈09'56	7.83227 AU
minimum elong	-5104 Jan 05 j 01:31	7°♄21'04	0°39'54	direct	-5099 Dec 02 j 13:20	23°≈36'52	
max. Earth dist.	-5104 Jan 04 j 16:52	7°♄18'17	10.22564 AU		-5098 Mar 01 j 03:54	0°♄	
morning rise	-5104 Jan 22 j 13:34	9°♄35'22		evening set	-5098 Mar 17 j 16:16	2°♄05'53	
retrograde	-5104 May 09 j 00:53	17°♄50'14					
opposition	-5104 Jul 17 j 04:21	14°♄20'56	-1°-9'-59	conjunction	-5098 Apr 04 j 18:49	4°♄29'33	-2°-19'-47
min. Earth dist.	-5104 Jul 17 j 08:50	14°♄20'02	8.15166 AU	minimum elong	-5098 Apr 04 j 18:51	4°♄29'34	2°19'56
direct	-5104 Sep 21 j 20:13	10°♄56'52		max. Earth dist.	-5098 Apr 05 j 14:16	4°♄36'02	9.85140 AU
evening set	-5104 Dec 31 j 19:22	18°♄50'32		morning rise	-5098 Apr 22 j 22:09	6°♄53'27	
				retrograde	-5098 Aug 06 j 21:58	15°♄24'49	
conjunction	-5103 Jan 18 j 06:13	21°♄06'24	-1°-11'-20	opposition	-5098 Oct 12 j 07:09	11°♄53'49	-2°-48'-40
minimum elong	-5103 Jan 18 j 06:10	21°♄06'23	1°11'38	min. Earth dist.	-5098 Oct 11 j 16:09	11°♄56'59	7.88443 AU
max. Earth dist.	-5103 Jan 18 j 02:14	21°♄05'06	10.08388 AU	direct	-5098 Dec 17 j 15:27	8°♄23'13	
morning rise	-5103 Feb 04 j 22:37	23°♄24'04		evening set	-5097 Apr 02 j 09:12	16°♄49'55	
	-5103 Apr 07 j 12:20	0°♄					
retrograde	-5103 May 23 j 22:13	1°♄50'22		conjunction	-5097 Apr 20 j 12:44	19°♄12'34	-2°-7'-7
	-5103 Jul 10 j 02:16	30°♄		minimum elong	-5097 Apr 20 j 12:47	19°♄12'35	2°07'12
opposition	-5103 Jul 31 j 12:34	28°♄19'39	-1°-47'-59	max. Earth dist.	-5097 Apr 21 j 09:33	19°♄19'26	9.92307 AU
min. Earth dist.	-5103 Jul 31 j 13:23	28°♄19'29	8.02127 AU	morning rise	-5097 May 08 j 15:41	21°♄34'56	
direct	-5103 Oct 05 j 17:46	24°♄54'04		retrograde	-5097 Aug 21 j 10:12	29°♄55'21	
	-5103 Dec 22 j 06:47	0°♄		opposition	-5097 Oct 26 j 17:49	26°♄25'48	-2°-27'-23
evening set	-5102 Jan 15 j 09:52	2°♄58'55		min. Earth dist.	-5097 Oct 26 j 02:23	26°♄29'01	7.97316 AU
				direct	-5096 Jan 01 j 15:11	22°♄55'13	
conjunction	-5102 Feb 02 j 00:50	5°♄17'49	-1°-39'-39		-5096 Apr 06 j 15:54	0°♄	
minimum elong	-5102 Feb 02 j 00:47	5°♄17'47	1°39'56	evening set	-5096 Apr 16 j 19:02	1°♄16'19	
max. Earth dist.	-5102 Feb 02 j 02:15	5°♄18'17	9.96544 AU				
morning rise	-5102 Feb 19 j 20:59	7°♄38'23		conjunction	-5096 May 04 j 22:29	3°♄37'06	-1°-46'-40
retrograde	-5102 Jun 08 j 02:17	16°♄13'41		minimum elong	-5096 May 04 j 22:34	3°♄37'07	1°46'41
opposition	-5102 Aug 15 j 03:01	12°♄41'54	-2°-20'-25	max. Earth dist.	-5096 May 05 j 19:14	3°♄43'51	10.02878 AU
min. Earth dist.	-5102 Aug 14 j 23:47	12°♄42'34	7.91840 AU	morning rise	-5096 May 23 j 00:06	5°♄57'10	
direct	-5102 Oct 19 j 23:59	9°♄14'52		retrograde	-5096 Sep 03 j 11:40	14°♄04'23	
evening set	-5101 Jan 30 j 12:56	17°♄29'46		opposition	-5096 Nov 08 j 20:52	10°♄36'36	-1°-57'-31
				min. Earth dist.	-5096 Nov 08 j 05:48	10°♄39'43	8.09244 AU
conjunction	-5101 Feb 17 j 07:40	19°♄51'05	-2°-2'-19	direct	-5095 Jan 15 j 10:14	7°♄06'26	

Attention, astronomical year style is used: The year -5095 in astronomical counting style is the year 5096 BCE in historical counting style.

evening set	-5095 May 01 j 18:45	15° $\Upsilon$ 19'25		direct	-5089 Apr 05 j 13:41	23° $\Pi$ 09'31	
					-5089 Jul 15 j 13:12	0° $\Theta$	
conjunction	-5095 May 19 j 20:59	17° $\Upsilon$ 37'37	-1°-20'-18	evening set	-5089 Jul 18 j 23:13	0° $\Theta$ 23'22	
minimum elong	-5095 May 19 j 21:03	17° $\Upsilon$ 37'39	1°20'15				
max. Earth dist.	-5095 May 20 j 16:19	17° $\Upsilon$ 43'49	10.16131 AU	conjunction	-5089 Aug 04 j 23:31	2° $\Theta$ 22'07	1°35'09
morning rise	-5095 Jun 06 j 20:13	19° $\Upsilon$ 54'46		minimum elong	-5089 Aug 04 j 23:28	2° $\Theta$ 22'06	1°35'25
retrograde	-5095 Sep 17 j 01:14	27° $\Upsilon$ 47'48		max. Earth dist.	-5089 Aug 04 j 22:25	2° $\Theta$ 21'48	11.05060 AU
opposition	-5095 Nov 22 j 15:17	24° $\Upsilon$ 21'59	-1°-21'-46	morning rise	-5089 Aug 21 j 19:02	4° $\Theta$ 19'29	
min. Earth dist.	-5095 Nov 22 j 00:54	24° $\Upsilon$ 24'55	8.23443 AU	retrograde	-5089 Nov 28 j 01:09	11° $\Theta$ 09'43	
direct	-5094 Jan 29 j 22:23	20° $\Upsilon$ 52'37		opposition	-5088 Feb 05 j 02:52	7° $\Theta$ 53'46	2°08'32
evening set	-5094 May 16 j 06:39	28° $\Upsilon$ 55'49		min. Earth dist.	-5088 Feb 05 j 04:25	7° $\Theta$ 53'29	9.10285 AU
	-5094 May 24 j 20:58	0° $\mathcal{B}$		direct	-5088 Apr 16 j 19:04	4° $\Theta$ 32'08	
				evening set	-5088 Jul 29 j 14:37	11° $\Theta$ 39'05	
conjunction	-5094 Jun 03 j 06:24	1° $\mathcal{B}$ 10'56	0°-50'-9				
minimum elong	-5094 Jun 03 j 06:27	1° $\mathcal{B}$ 10'56	0°50'02	conjunction	-5088 Aug 15 j 10:18	13° $\Theta$ 35'30	1°54'52
max. Earth dist.	-5094 Jun 03 j 23:41	1° $\mathcal{B}$ 16'22	10.31212 AU	minimum elong	-5088 Aug 15 j 10:15	13° $\Theta$ 35'29	1°55'09
morning rise	-5094 Jun 21 j 02:07	3° $\mathcal{B}$ 24'42		max. Earth dist.	-5088 Aug 15 j 05:57	13° $\Theta$ 34'14	11.14712 AU
retrograde	-5094 Sep 30 j 03:04	11° $\mathcal{B}$ 03'40		morning rise	-5088 Sep 01 j 01:29	15° $\Theta$ 30'41	
min. Earth dist.	-5094 Dec 05 j 11:25	7° $\mathcal{B}$ 42'33	8.39055 AU	retrograde	-5088 Dec 08 j 09:42	22° $\Theta$ 17'01	
opposition	-5094 Dec 06 j 00:40	7° $\mathcal{B}$ 39'53	0°-42'-49	opposition	-5087 Feb 15 j 20:43	19° $\Theta$ 01'47	2°29'40
direct	-5093 Feb 13 j 01:50	4° $\mathcal{B}$ 11'38		min. Earth dist.	-5087 Feb 16 j 01:55	19° $\Theta$ 00'50	9.18653 AU
evening set	-5093 May 30 j 05:37	12° $\mathcal{B}$ 04'12		direct	-5087 Apr 28 j 17:57	15° $\Theta$ 41'15	
				evening set	-5087 Aug 09 j 23:15	22° $\Theta$ 42'46	
conjunction	-5093 Jun 17 j 01:51	14° $\mathcal{B}$ 15'54	0°-18'-17				
minimum elong	-5093 Jun 17 j 01:51	14° $\mathcal{B}$ 15'55	0°18'06	conjunction	-5087 Aug 26 j 14:46	24° $\Theta$ 37'22	2°09'59
max. Earth dist.	-5093 Jun 17 j 16:53	14° $\mathcal{B}$ 20'33	10.47248 AU	minimum elong	-5087 Aug 26 j 14:44	24° $\Theta$ 37'21	2°10'16
	-5093 Jun 23 j 00:13	15° $\mathcal{B}$		max. Earth dist.	-5087 Aug 26 j 06:26	24° $\Theta$ 34'57	11.21621 AU
morning rise	-5093 Jul 04 j 17:10	16° $\mathcal{B}$ 26'05		morning rise	-5087 Sep 12 j 02:29	26° $\Theta$ 30'57	
retrograde	-5093 Oct 12 j 19:41	23° $\mathcal{B}$ 51'54			-5087 Oct 15 j 12:11	0° $\mathcal{Q}$	
opposition	-5093 Dec 19 j 01:18	20° $\mathcal{B}$ 30'08	0°-3'-9	retrograde	-5087 Dec 19 j 14:56	3° $\mathcal{Q}$ 15'19	
min. Earth dist.	-5093 Dec 18 j 14:05	20° $\mathcal{B}$ 32'20	8.55229 AU	opposition	-5086 Feb 27 j 12:33	0° $\mathcal{Q}$ 00'25	2°45'02
asc. node	-5092 Jan 18 j 12:09	18° $\mathcal{B}$ 17'52			-5086 Feb 27 j 14:49	30° $\mathcal{R}\Theta$	
direct	-5092 Feb 26 j 18:22	17° $\mathcal{B}$ 03'09		min. Earth dist.	-5086 Feb 27 j 21:25	29° $\Theta$ 58'48	9.24189 AU
evening set	-5092 Jun 11 j 15:29	24° $\mathcal{B}$ 44'58		direct	-5086 May 10 j 10:14	26° $\Theta$ 40'48	
					-5086 Jul 16 j 23:12	0° $\mathcal{Q}$	
conjunction	-5092 Jun 29 j 07:19	26° $\mathcal{B}$ 53'11	0°13'34	evening set	-5086 Aug 21 j 02:34	3° $\mathcal{Q}$ 38'13	
minimum elong	-5092 Jun 29 j 07:18	26° $\mathcal{B}$ 53'10	0°13'48				
behind sun begin	-5092 Jun 29 j 03:35	26° $\mathcal{B}$ 52'03		conjunction	-5086 Sep 06 j 14:39	5° $\mathcal{Q}$ 31'34	2°20'13
behind sun end	-5092 Jun 29 j 11:00	26° $\mathcal{B}$ 54'18		minimum elong	-5086 Sep 06 j 14:37	5° $\mathcal{Q}$ 31'33	2°20'27
max. Earth dist.	-5092 Jun 29 j 19:24	26° $\mathcal{B}$ 56'51	10.63390 AU	max. Earth dist.	-5086 Sep 06 j 02:29	5° $\mathcal{Q}$ 28'04	11.25649 AU
morning rise	-5092 Jul 16 j 17:43	28° $\mathcal{B}$ 59'45		morning rise	-5086 Sep 22 j 23:54	7° $\mathcal{Q}$ 24'08	
	-5092 Jul 25 j 06:42	0° $\mathcal{I}$		retrograde	-5086 Dec 30 j 20:28	14° $\mathcal{Q}$ 08'25	
retrograde	-5092 Oct 24 j 02:28	6° $\mathcal{I}$ 13'51		opposition	-5085 Mar 11 j 03:22	10° $\mathcal{Q}$ 53'26	2°54'22
opposition	-5092 Dec 30 j 17:40	2° $\mathcal{I}$ 53'57	0°35'10	min. Earth dist.	-5085 Mar 11 j 14:48	10° $\mathcal{Q}$ 51'21	9.26774 AU
min. Earth dist.	-5092 Dec 30 j 09:42	2° $\mathcal{I}$ 55'30	8.71141 AU	direct	-5085 May 22 j 01:50	7° $\mathcal{Q}$ 34'30	
	-5091 Feb 13 j 14:58	30° $\mathcal{R}\mathcal{B}$		evening set	-5085 Sep 01 j 02:17	14° $\mathcal{Q}$ 29'15	
direct	-5091 Mar 11 j 00:59	29° $\mathcal{B}$ 28'21			-5085 Sep 05 j 14:51	15° $\mathcal{Q}$	
	-5091 Apr 05 j 11:16	0° $\mathcal{I}$					
evening set	-5091 Jun 24 j 13:10	6° $\mathcal{I}$ 59'54		conjunction	-5085 Sep 17 j 12:02	16° $\mathcal{Q}$ 21'55	2°25'20
				minimum elong	-5085 Sep 17 j 12:02	16° $\mathcal{Q}$ 21'55	2°25'33
conjunction	-5091 Jul 11 j 23:53	9° $\mathcal{I}$ 04'40	0°43'46	max. Earth dist.	-5085 Sep 16 j 21:47	16° $\mathcal{Q}$ 17'48	11.26713 AU
minimum elong	-5091 Jul 11 j 23:51	9° $\mathcal{I}$ 04'39	0°44'01	morning rise	-5085 Oct 03 j 19:42	18° $\mathcal{Q}$ 14'02	
max. Earth dist.	-5091 Jul 12 j 07:47	9° $\mathcal{I}$ 07'02	10.78852 AU	retrograde	-5084 Jan 11 j 04:49	24° $\mathcal{Q}$ 59'58	
morning rise	-5091 Jul 29 j 05:10	11° $\mathcal{I}$ 07'49		opposition	-5084 Mar 21 j 18:12	21° $\mathcal{Q}$ 44'33	2°57'30
retrograde	-5091 Nov 04 j 23:24	18° $\mathcal{I}$ 11'57		min. Earth dist.	-5084 Mar 22 j 07:04	21° $\mathcal{Q}$ 42'13	9.26349 AU
opposition	-5090 Jan 12 j 02:35	14° $\mathcal{I}$ 53'41	1°10'37	direct	-5084 Jun 01 j 13:31	18° $\mathcal{Q}$ 26'06	
min. Earth dist.	-5090 Jan 11 j 22:14	14° $\mathcal{I}$ 54'31	8.86048 AU	evening set	-5084 Sep 11 j 00:09	25° $\mathcal{Q}$ 19'33	
direct	-5090 Mar 23 j 23:39	11° $\mathcal{I}$ 29'27					
evening set	-5090 Jul 06 j 23:23	18° $\mathcal{I}$ 51'36		conjunction	-5084 Sep 27 j 08:37	27° $\mathcal{Q}$ 12'09	2°25'16
				minimum elong	-5084 Sep 27 j 08:38	27° $\mathcal{Q}$ 12'09	2°25'26
conjunction	-5090 Jul 24 j 04:45	20° $\mathcal{I}$ 53'09	1°11'15	max. Earth dist.	-5084 Sep 26 j 16:54	27° $\mathcal{Q}$ 07'36	11.24789 AU
minimum elong	-5090 Jul 24 j 04:43	20° $\mathcal{I}$ 53'09	1°11'30	morning rise	-5084 Oct 13 j 15:39	29° $\mathcal{Q}$ 04'28	
max. Earth dist.	-5090 Jul 24 j 07:39	20° $\mathcal{I}$ 54'01	10.92945 AU		-5084 Oct 21 j 22:40	0° $\mathcal{R}$	
morning rise	-5090 Aug 10 j 05:03	22° $\mathcal{I}$ 53'13		retrograde	-5083 Jan 21 j 15:32	5° $\mathcal{R}$ 53'45	
retrograde	-5090 Nov 16 j 14:58	29° $\mathcal{I}$ 49'21		opposition	-5083 Apr 02 j 10:47	2° $\mathcal{R}$ 37'35	2°54'20
opposition	-5089 Jan 24 j 05:17	26° $\mathcal{I}$ 32'25	1°42'00	min. Earth dist.	-5083 Apr 03 j 01:27	2° $\mathcal{R}$ 34'55	9.22938 AU
min. Earth dist.	-5089 Jan 24 j 03:56	26° $\mathcal{I}$ 32'40	8.99286 AU		-5083 May 14 j 05:45	30° $\mathcal{R}\mathcal{Q}$	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), AstroDienst AG 7-Dez-2017 14:33, page 27

Attention, astronomical year style is used: The year -5083 in astronomical counting style is the year 5084 BCE in historical counting style.

direct	-5083 Jun 12 j 22:52	29° $\Omega$ 19'22		direct	-5077 Aug 22 j 00:43	8° $\mathbb{M}$ 49'28	
	-5083 Jul 12 j 04:51	0° $\mathbb{M}$			-5077 Nov 19 j 07:42	15° $\mathbb{M}$	
evening set	-5083 Sep 21 j 21:58	6° $\mathbb{M}$ 12'59		evening set	-5077 Nov 29 j 19:56	16° $\mathbb{M}$ 16'11	
conjunction	-5083 Oct 08 j 05:55	8° $\mathbb{M}$ 06'05	2°19'57	conjunction	-5077 Dec 16 j 20:02	18° $\mathbb{M}$ 23'34	0°08'23
minimum elong	-5083 Oct 08 j 05:57	8° $\mathbb{M}$ 06'06	2°20'04	minimum elong	-5077 Dec 16 j 20:03	18° $\mathbb{M}$ 23'35	0°08'10
max. Earth dist.	-5083 Oct 07 j 12:05	8° $\mathbb{M}$ 00'55	11.19953 AU	behind sun begin	-5077 Dec 16 j 13:45	18° $\mathbb{M}$ 21'37	
morning rise	-5083 Oct 24 j 13:33	9° $\mathbb{M}$ 59'11		behind sun end	-5077 Dec 17 j 02:22	18° $\mathbb{M}$ 25'32	
retrograde	-5082 Feb 02 j 06:44	16° $\mathbb{M}$ 53'34		max. Earth dist.	-5077 Dec 16 j 07:19	18° $\mathbb{M}$ 19'35	10.44838 AU
opposition	-5082 Apr 14 j 06:19	13° $\mathbb{M}$ 36'21	2°44'51	morning rise	-5076 Jan 03 j 01:00	20° $\mathbb{M}$ 32'33	
min. Earth dist.	-5082 Apr 14 j 22:43	13° $\mathbb{M}$ 33'22	9.16665 AU	desc. node	-5076 Mar 22 j 12:44	27° $\mathbb{M}$ 52'24	
direct	-5082 Jun 24 j 09:46	10° $\mathbb{M}$ 18'08		retrograde	-5076 Apr 18 j 07:24	28° $\mathbb{M}$ 28'42	
evening set	-5082 Oct 02 j 21:37	17° $\mathbb{M}$ 13'24		opposition	-5076 Jun 27 j 06:47	25° $\mathbb{M}$ 01'39	0°-10'-26
max. Earth dist.	-5082 Oct 18 j 10:59	19° $\mathbb{M}$ 02'00	11.12371 AU	min. Earth dist.	-5076 Jun 27 j 15:49	24° $\mathbb{M}$ 59'53	8.36831 AU
conjunction	-5082 Oct 19 j 06:09	19° $\mathbb{M}$ 07'37	2°09'24	direct	-5076 Sep 02 j 20:30	21° $\mathbb{M}$ 39'26	
minimum elong	-5082 Oct 19 j 06:12	19° $\mathbb{M}$ 07'38	2°09'29	evening set	-5076 Dec 11 j 23:32	29° $\mathbb{M}$ 16'38	
morning rise	-5082 Nov 04 j 15:29	21° $\mathbb{M}$ 02'07			-5076 Dec 17 j 17:23	0° $\mathbb{A}$	
retrograde	-5081 Feb 14 j 02:50	28° $\mathbb{M}$ 03'16		conjunction	-5076 Dec 29 j 04:08	1° $\mathbb{A}$ 27'33	0°-24'-31
opposition	-5081 Apr 26 j 05:44	24° $\mathbb{M}$ 44'43	2°29'05	minimum elong	-5076 Dec 29 j 04:07	1° $\mathbb{A}$ 27'32	0°24'46
min. Earth dist.	-5081 Apr 26 j 22:43	24° $\mathbb{M}$ 41'36	9.07738 AU	max. Earth dist.	-5076 Dec 28 j 19:41	1° $\mathbb{A}$ 24'51	10.29218 AU
direct	-5081 Jul 05 j 22:26	21° $\mathbb{M}$ 26'18		morning rise	-5075 Jan 15 j 13:50	3° $\mathbb{A}$ 40'10	
evening set	-5081 Oct 14 j 00:53	28° $\mathbb{M}$ 24'46		retrograde	-5075 May 02 j 16:08	11° $\mathbb{A}$ 49'22	
	-5081 Oct 27 j 13:21	0° $\mathbb{A}$		opposition	-5075 Jul 11 j 03:17	8° $\mathbb{A}$ 20'42	0°-51'-26
conjunction	-5081 Oct 30 j 11:11	0° $\mathbb{A}$ 20'41	1°53'46	min. Earth dist.	-5075 Jul 11 j 08:16	8° $\mathbb{A}$ 19'42	8.21664 AU
minimum elong	-5081 Oct 30 j 11:14	0° $\mathbb{A}$ 20'42	1°53'48	direct	-5075 Sep 16 j 02:24	4° $\mathbb{A}$ 57'17	
max. Earth dist.	-5081 Oct 29 j 16:32	0° $\mathbb{A}$ 15'10	11.02272 AU	evening set	-5075 Dec 25 j 17:22	12° $\mathbb{A}$ 45'42	
morning rise	-5081 Nov 15 j 23:01	2° $\mathbb{A}$ 17'09		conjunction	-5074 Jan 12 j 02:21	15° $\mathbb{A}$ 00'04	0°-57'-2
retrograde	-5080 Feb 26 j 09:09	9° $\mathbb{A}$ 26'42		minimum elong	-5074 Jan 12 j 02:18	15° $\mathbb{A}$ 00'04	0°57'19
opposition	-5080 May 07 j 10:24	6° $\mathbb{A}$ 06'38	2°07'12	max. Earth dist.	-5074 Jan 11 j 22:20	14° $\mathbb{A}$ 58'46	10.14656 AU
min. Earth dist.	-5080 May 08 j 02:33	6° $\mathbb{A}$ 03'38	8.96427 AU	morning rise	-5074 Jan 29 j 16:36	17° $\mathbb{A}$ 16'13	
direct	-5080 Jul 16 j 15:32	2° $\mathbb{A}$ 47'50		retrograde	-5074 May 17 j 11:13	25° $\mathbb{A}$ 37'34	
evening set	-5080 Oct 24 j 09:57	9° $\mathbb{A}$ 51'02		opposition	-5074 Jul 25 j 08:08	22° $\mathbb{A}$ 07'31	-1°-31'-1
conjunction	-5080 Nov 09 j 22:47	11° $\mathbb{A}$ 49'12	1°33'17	min. Earth dist.	-5074 Jul 25 j 08:56	22° $\mathbb{A}$ 07'21	8.08022 AU
minimum elong	-5080 Nov 09 j 22:50	11° $\mathbb{A}$ 49'13	1°33'15	direct	-5074 Sep 29 j 17:41	18° $\mathbb{A}$ 42'50	
max. Earth dist.	-5080 Nov 09 j 04:51	11° $\mathbb{A}$ 43'49	10.89974 AU	evening set	-5073 Jan 09 j 01:51	26° $\mathbb{A}$ 42'37	
morning rise	-5080 Nov 26 j 13:56	13° $\mathbb{A}$ 48'11		conjunction	-5073 Jan 26 j 14:56	29° $\mathbb{A}$ 00'09	-1°-27'-11
retrograde	-5079 Mar 09 j 23:21	21° $\mathbb{A}$ 07'38		minimum elong	-5073 Jan 26 j 14:52	29° $\mathbb{A}$ 00'07	1°27'28
opposition	-5079 May 19 j 21:33	17° $\mathbb{A}$ 45'55	1°39'33	max. Earth dist.	-5073 Jan 26 j 15:21	29° $\mathbb{A}$ 00'17	10.02026 AU
min. Earth dist.	-5079 May 20 j 12:31	17° $\mathbb{A}$ 43'06	8.83121 AU		-5073 Feb 03 j 05:08	0° $\mathbb{B}$	
direct	-5079 Jul 28 j 10:43	14° $\mathbb{A}$ 26'32		morning rise	-5073 Feb 13 j 09:15	1° $\mathbb{B}$ 19'25	
evening set	-5079 Nov 05 j 02:53	21° $\mathbb{A}$ 36'04		retrograde	-5073 Jun 01 j 14:16	9° $\mathbb{B}$ 50'56	
conjunction	-5079 Nov 21 j 18:53	23° $\mathbb{A}$ 36'56	1°08'24	opposition	-5073 Aug 08 j 20:04	6° $\mathbb{B}$ 19'52	-2°-6'-21
minimum elong	-5079 Nov 21 j 18:55	23° $\mathbb{A}$ 36'56	1°08'18	min. Earth dist.	-5073 Aug 08 j 17:09	6° $\mathbb{B}$ 20'28	7.96758 AU
max. Earth dist.	-5079 Nov 21 j 01:18	23° $\mathbb{A}$ 31'35	10.75922 AU	direct	-5073 Oct 13 j 18:35	2° $\mathbb{B}$ 53'53	
morning rise	-5079 Dec 08 j 14:16	25° $\mathbb{A}$ 38'55		evening set	-5072 Jan 23 j 23:42	11° $\mathbb{B}$ 04'18	
	-5078 Jan 17 j 22:20	0° $\mathbb{M}$		conjunction	-5072 Feb 10 j 16:32	13° $\mathbb{B}$ 24'29	-1°-52'-42
retrograde	-5078 Mar 22 j 22:58	3° $\mathbb{M}$ 09'40		minimum elong	-5072 Feb 10 j 16:29	13° $\mathbb{B}$ 24'28	1°52'59
	-5078 May 29 j 15:30	30° $\mathbb{R}$ $\mathbb{A}$		max. Earth dist.	-5072 Feb 10 j 21:45	13° $\mathbb{B}$ 26'13	9.92159 AU
opposition	-5078 Jun 01 j 16:16	29° $\mathbb{A}$ 46'10	1°06'41	morning rise	-5072 Feb 28 j 14:16	15° $\mathbb{B}$ 46'15	
min. Earth dist.	-5078 Jun 02 j 06:10	29° $\mathbb{A}$ 43'32	8.68329 AU	retrograde	-5072 Jun 15 j 22:19	24° $\mathbb{B}$ 24'55	
direct	-5078 Aug 09 j 13:37	26° $\mathbb{A}$ 26'00		opposition	-5072 Aug 22 j 13:35	20° $\mathbb{B}$ 53'13	-2°-34'-31
	-5078 Oct 14 j 21:10	0° $\mathbb{M}$		min. Earth dist.	-5072 Aug 22 j 07:11	20° $\mathbb{B}$ 54'33	7.88629 AU
evening set	-5078 Nov 17 j 05:33	3° $\mathbb{M}$ 43'25		direct	-5072 Oct 27 j 06:18	17° $\mathbb{B}$ 25'59	
max. Earth dist.	-5078 Dec 03 j 09:25	5° $\mathbb{M}$ 42'28	10.60663 AU	evening set	-5071 Feb 07 j 08:29	25° $\mathbb{B}$ 45'16	
conjunction	-5078 Dec 04 j 01:22	5° $\mathbb{M}$ 47'24	0°39'45	conjunction	-5071 Feb 25 j 04:43	28° $\mathbb{B}$ 07'25	-2°-11'-25
minimum elong	-5078 Dec 04 j 01:23	5° $\mathbb{M}$ 47'25	0°39'36	minimum elong	-5071 Feb 25 j 04:41	28° $\mathbb{B}$ 07'24	2°11'41
morning rise	-5078 Dec 21 j 01:30	7° $\mathbb{M}$ 52'46		max. Earth dist.	-5071 Feb 25 j 14:40	28° $\mathbb{B}$ 10'45	9.85743 AU
	-5077 Mar 09 j 13:17	15° $\mathbb{M}$			-5071 Mar 11 j 07:06	0° $\mathbb{A}$	
retrograde	-5077 Apr 05 j 09:51	15° $\mathbb{M}$ 35'54		morning rise	-5071 Mar 15 j 05:07	0° $\mathbb{A}$ 30'54	
	-5077 May 02 j 12:14	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-5071 Jul 01 j 06:53	9° $\mathbb{A}$ 12'43	
opposition	-5077 Jun 14 j 19:14	12° $\mathbb{M}$ 10'36	0°29'34	opposition	-5071 Sep 06 j 10:07	5° $\mathbb{A}$ 40'50	-2°-52'-56
min. Earth dist.	-5077 Jun 15 j 07:20	12° $\mathbb{M}$ 08'16	8.52660 AU	min. Earth dist.	-5071 Sep 06 j 00:44	5° $\mathbb{A}$ 42'48	7.84178 AU

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 28

Attention, astronomical year style is used: The year -5071 in astronomical counting style is the year 5072 BCE in historical counting style.

direct	-5071 Nov 11 j 02:10	2° $\approx$ 12'28		evening set	-5064 May 23 j 10:18	6° $\approx$ 28'24	
evening set	-5070 Feb 23 j 01:03	10° $\approx$ 37'55					
				conjunction	-5064 Jun 10 j 08:17	8° $\approx$ 41'49	0°-32'-38
conjunction	-5070 Mar 13 j 00:15	13° $\approx$ 01'15	-2°-21'-39	minimum elong	-5064 Jun 10 j 08:19	8° $\approx$ 41'49	0°32'29
minimum elong	-5070 Mar 13 j 00:14	13° $\approx$ 01'15	2°21'52	max. Earth dist.	-5064 Jun 10 j 23:28	8° $\approx$ 46'33	10.39185 AU
max. Earth dist.	-5070 Mar 13 j 14:13	13° $\approx$ 05'55	9.83196 AU	morning rise	-5064 Jun 28 j 01:46	10° $\approx$ 53'48	
	-5070 Mar 27 j 20:54	15° $\approx$			-5064 Aug 03 j 15:32	15° $\approx$	
morning rise	-5070 Mar 31 j 02:30	15° $\approx$ 25'30		retrograde	-5064 Oct 06 j 14:51	18° $\approx$ 26'02	
retrograde	-5070 Jul 16 j 12:39	24° $\approx$ 05'59		opposition	-5064 Dec 12 j 15:59	15° $\approx$ 03'18	0°-20'-51
opposition	-5070 Sep 21 j 06:45	20° $\approx$ 34'22	-2°-59'-51	min. Earth dist.	-5064 Dec 12 j 05:26	15° $\approx$ 05'23	8.46957 AU
min. Earth dist.	-5070 Sep 20 j 19:01	20° $\approx$ 36'50	7.83637 AU		-5064 Dec 13 j 08:33	15° $\approx$	
direct	-5070 Nov 26 j 02:43	17° $\approx$ 05'05		direct	-5063 Feb 20 j 01:10	11° $\approx$ 35'32	
evening set	-5069 Mar 10 j 20:58	25° $\approx$ 33'27			-5063 Apr 27 j 03:07	15° $\approx$	
				evening set	-5063 Jun 06 j 02:40	19° $\approx$ 22'50	
conjunction	-5069 Mar 28 j 22:32	27° $\approx$ 57'06	-2°-22'-26				
minimum elong	-5069 Mar 28 j 22:33	27° $\approx$ 57'06	2°22'36	conjunction	-5063 Jun 23 j 20:33	21° $\approx$ 32'47	0°00'-34
max. Earth dist.	-5069 Mar 29 j 15:29	28° $\approx$ 02'45	9.84591 AU	minimum elong	-5063 Jun 23 j 20:34	21° $\approx$ 32'47	0°00'22
	-5069 Apr 13 j 08:59	0° $\approx$		behind sun begin	-5063 Jun 23 j 13:22	21° $\approx$ 30'36	
morning rise	-5069 Apr 16 j 01:44	0° $\approx$ 21'12		behind sun end	-5063 Jun 24 j 03:45	21° $\approx$ 34'58	
retrograde	-5069 Jul 31 j 13:20	8° $\approx$ 56'05		max. Earth dist.	-5063 Jun 24 j 08:07	21° $\approx$ 36'19	10.54987 AU
min. Earth dist.	-5069 Oct 05 j 11:30	5° $\approx$ 28'06	7.86926 AU	asc. node	-5063 Jun 30 j 14:54	22° $\approx$ 22'37	
opposition	-5069 Oct 06 j 01:08	5° $\approx$ 25'14	-2°-54'-39	morning rise	-5063 Jul 11 j 09:30	23° $\approx$ 41'11	
direct	-5069 Dec 11 j 04:53	1° $\approx$ 55'23			-5063 Sep 15 j 03:25	0° $\approx$	
evening set	-5068 Mar 25 j 15:38	10° $\approx$ 23'14		retrograde	-5063 Oct 19 j 01:09	1° $\approx$ 00'57	
					-5063 Nov 22 j 11:40	30° $\approx$	
conjunction	-5068 Apr 12 j 18:47	12° $\approx$ 46'20	-2°-13'-48	opposition	-5063 Dec 25 j 12:19	27° $\approx$ 39'57	0°18'20
minimum elong	-5068 Apr 12 j 18:50	12° $\approx$ 46'21	2°13'54	min. Earth dist.	-5063 Dec 25 j 03:45	27° $\approx$ 41'37	8.62718 AU
max. Earth dist.	-5068 Apr 13 j 13:52	12° $\approx$ 52'39	9.89762 AU	direct	-5062 Mar 05 j 13:56	24° $\approx$ 13'21	
morning rise	-5068 Apr 30 j 22:04	15° $\approx$ 09'23			-5062 Jun 03 j 07:41	0° $\approx$	
retrograde	-5068 Aug 14 j 06:21	23° $\approx$ 35'07		evening set	-5062 Jun 19 j 06:06	1° $\approx$ 50'05	
opposition	-5068 Oct 19 j 14:49	20° $\approx$ 05'27	-2°-38'-3				
min. Earth dist.	-5068 Oct 18 j 23:53	20° $\approx$ 08'34	7.93828 AU	conjunction	-5062 Jul 06 j 19:13	3° $\approx$ 56'34	0°30'33
direct	-5068 Dec 25 j 05:24	16° $\approx$ 35'24		minimum elong	-5062 Jul 06 j 19:12	3° $\approx$ 56'34	0°30'48
evening set	-5067 Apr 10 j 05:24	24° $\approx$ 59'23		max. Earth dist.	-5062 Jul 07 j 03:33	3° $\approx$ 59'05	10.70518 AU
				morning rise	-5062 Jul 24 j 03:04	6° $\approx$ 01'27	
conjunction	-5067 Apr 28 j 09:10	27° $\approx$ 21'05	-1°-56'-40	retrograde	-5062 Oct 31 j 02:22	13° $\approx$ 10'26	
minimum elong	-5067 Apr 28 j 09:14	27° $\approx$ 21'07	1°56'43	opposition	-5061 Jan 07 j 00:45	9° $\approx$ 51'00	0°55'16
max. Earth dist.	-5067 Apr 29 j 05:17	27° $\approx$ 27'41	9.98423 AU	min. Earth dist.	-5061 Jan 06 j 18:24	9° $\approx$ 52'13	8.77873 AU
morning rise	-5067 May 16 j 11:32	29° $\approx$ 42'17		direct	-5061 Mar 18 j 17:25	6° $\approx$ 25'40	
	-5067 May 18 j 19:03	0° $\approx$		evening set	-5061 Jul 01 j 21:28	13° $\approx$ 52'30	
retrograde	-5067 Aug 28 j 14:34	7° $\approx$ 56'00					
opposition	-5067 Nov 02 j 21:47	4° $\approx$ 27'51	-2°-11'-47	conjunction	-5061 Jul 19 j 05:30	15° $\approx$ 55'39	0°59'24
min. Earth dist.	-5067 Nov 02 j 06:31	4° $\approx$ 31'00	8.03971 AU	minimum elong	-5061 Jul 19 j 05:28	15° $\approx$ 55'39	0°59'40
direct	-5066 Jan 09 j 02:34	0° $\approx$ 57'54		max. Earth dist.	-5061 Jul 19 j 11:00	15° $\approx$ 57'18	10.85081 AU
evening set	-5066 Apr 25 j 10:43	9° $\approx$ 15'08		morning rise	-5061 Aug 05 j 08:06	17° $\approx$ 57'15	
				retrograde	-5061 Nov 11 j 21:50	24° $\approx$ 57'19	
conjunction	-5066 May 13 j 13:52	11° $\approx$ 34'40	-1°-32'-43	opposition	-5060 Jan 19 j 06:18	21° $\approx$ 39'15	1°28'38
minimum elong	-5066 May 13 j 13:56	11° $\approx$ 34'41	1°32'42	min. Earth dist.	-5060 Jan 19 j 03:14	21° $\approx$ 39'50	8.91781 AU
max. Earth dist.	-5066 May 14 j 09:45	11° $\approx$ 41'05	10.10055 AU	direct	-5060 Mar 30 j 10:11	18° $\approx$ 15'12	
morning rise	-5066 May 31 j 14:13	13° $\approx$ 53'15		evening set	-5060 Jul 13 j 01:59	25° $\approx$ 33'09	
retrograde	-5066 Sep 11 j 10:56	21° $\approx$ 53'17					
opposition	-5066 Nov 16 j 20:50	18° $\approx$ 26'52	-1°-38'-21	conjunction	-5060 Jul 30 j 04:47	27° $\approx$ 33'19	1°25'01
min. Earth dist.	-5066 Nov 16 j 06:24	18° $\approx$ 29'49	8.16739 AU	minimum elong	-5060 Jul 30 j 04:44	27° $\approx$ 33'18	1°25'17
direct	-5065 Jan 23 j 18:30	14° $\approx$ 57'24		max. Earth dist.	-5060 Jul 30 j 06:23	27° $\approx$ 33'47	10.98089 AU
evening set	-5065 May 10 j 04:47	23° $\approx$ 05'39		morning rise	-5060 Aug 16 j 02:26	29° $\approx$ 32'01	
					-5060 Aug 20 j 04:11	0° $\approx$	
conjunction	-5065 May 28 j 05:57	25° $\approx$ 22'20	-1°-4'00	retrograde	-5060 Nov 22 j 09:25	6° $\approx$ 25'05	
minimum elong	-5065 May 28 j 06:00	25° $\approx$ 22'21	1°03'54	opposition	-5059 Jan 30 j 06:11	3° $\approx$ 08'10	1°57'26
max. Earth dist.	-5065 May 29 j 00:16	25° $\approx$ 28'10	10.23922 AU	min. Earth dist.	-5059 Jan 30 j 06:44	3° $\approx$ 08'04	9.03896 AU
morning rise	-5065 Jun 15 j 03:17	27° $\approx$ 37'47			-5059 Mar 25 j 05:51	30° $\approx$	
	-5065 Jul 04 j 21:38	0° $\approx$		direct	-5059 Apr 11 j 18:17	29° $\approx$ 45'22	
retrograde	-5065 Sep 24 j 18:32	5° $\approx$ 23'41			-5059 Apr 29 j 07:27	0° $\approx$	
opposition	-5065 Nov 30 j 11:01	1° $\approx$ 59'07	-1°00'-30	evening set	-5059 Jul 24 j 21:14	6° $\approx$ 55'42	
min. Earth dist.	-5065 Nov 29 j 22:26	2° $\approx$ 01'39	8.31350 AU				
	-5065 Dec 26 j 16:59	30° $\approx$		conjunction	-5059 Aug 10 j 18:57	8° $\approx$ 53'15	1°46'40
direct	-5064 Feb 07 j 02:36	28° $\approx$ 30'23		minimum elong	-5059 Aug 10 j 18:54	8° $\approx$ 53'14	1°46'57
	-5064 Mar 20 j 05:47	0° $\approx$		max. Earth dist.	-5059 Aug 10 j 16:07	8° $\approx$ 52'25	11.09068 AU

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 29

Attention, astronomical year style is used: The year -5059 in astronomical counting style is the year 5060 BCE in historical counting style.

morning rise	-5059 Aug 27 j 12:10	10° <del>5</del> 49'30		morning rise	-5053 Oct 31 j 00:47	16° <del>7</del> 16'06	
retrograde	-5059 Dec 03 j 17:22	17° <del>5</del> 37'36		retrograde	-5052 Feb 09 j 03:48	23° <del>7</del> 13'06	
opposition	-5058 Feb 11 j 01:37	14° <del>5</del> 21'32	2°21'03	opposition	-5052 Apr 20 j 04:48	19° <del>7</del> 55'43	2°36'47
min. Earth dist.	-5058 Feb 11 j 05:02	14° <del>5</del> 20'54	9.13787 AU	min. Earth dist.	-5052 Apr 20 j 19:38	19° <del>7</del> 53'00	9.14428 AU
direct	-5058 Apr 23 j 21:36	10° <del>5</del> 59'58		direct	-5052 Jun 30 j 02:42	16° <del>7</del> 38'01	
evening set	-5058 Aug 05 j 08:37	18° <del>5</del> 03'59		evening set	-5052 Oct 08 j 09:29	23° <del>7</del> 33'59	
conjunction	-5058 Aug 22 j 01:55	19° <del>5</del> 59'25	2°03'53	conjunction	-5052 Oct 24 j 18:45	25° <del>7</del> 28'47	2°01'21
minimum elong	-5058 Aug 22 j 01:52	19° <del>5</del> 59'24	2°04'09	minimum elong	-5052 Oct 24 j 18:48	25° <del>7</del> 28'47	2°01'24
max. Earth dist.	-5058 Aug 21 j 19:48	19° <del>5</del> 57'38	11.17656 AU	max. Earth dist.	-5052 Oct 24 j 00:47	25° <del>7</del> 23'30	11.09731 AU
morning rise	-5058 Sep 07 j 15:17	21° <del>5</del> 53'44		morning rise	-5052 Nov 10 j 05:07	27° <del>7</del> 23'59	
retrograde	-5058 Dec 15 j 00:01	28° <del>5</del> 38'49			-5052 Dec 03 j 22:05	0° <del>5</del>	
opposition	-5057 Feb 22 j 18:01	25° <del>5</del> 23'18	2°39'00	retrograde	-5051 Feb 20 j 05:12	4° <del>5</del> 28'25	
min. Earth dist.	-5057 Feb 22 j 23:29	25° <del>5</del> 22'18	9.21124 AU	opposition	-5051 May 02 j 06:31	1° <del>5</del> 09'46	2°17'39
direct	-5057 May 05 j 17:19	22° <del>5</del> 02'52		min. Earth dist.	-5051 May 02 j 22:32	1° <del>5</del> 06'49	9.04646 AU
evening set	-5057 Aug 16 j 13:42	29° <del>5</del> 01'55			-5051 May 18 j 09:52	30° <del>5</del>	
	-5057 Aug 25 j 01:42	0° <del>5</del>		direct	-5051 Jul 11 j 16:32	27° <del>7</del> 51'52	
conjunction	-5057 Sep 02 j 03:26	0° <del>5</del> 55'47	2°16'18		-5051 Sep 01 j 11:55	0° <del>5</del>	
minimum elong	-5057 Sep 02 j 03:24	0° <del>5</del> 55'47	2°16'33	evening set	-5051 Oct 19 j 15:08	4° <del>5</del> 51'38	
max. Earth dist.	-5057 Sep 01 j 19:11	0° <del>5</del> 53'25	11.23572 AU	max. Earth dist.	-5051 Nov 04 j 07:50	6° <del>5</del> 42'50	10.98806 AU
morning rise	-5057 Sep 18 j 13:40	2° <del>5</del> 48'45		conjunction	-5051 Nov 05 j 02:24	6° <del>5</del> 48'22	1°43'03
retrograde	-5057 Dec 26 j 06:14	9° <del>5</del> 32'42		minimum elong	-5051 Nov 05 j 02:27	6° <del>5</del> 48'23	1°43'03
opposition	-5056 Mar 05 j 08:44	6° <del>5</del> 17'27	2°51'00	morning rise	-5051 Nov 21 j 15:53	8° <del>5</del> 45'48	
min. Earth dist.	-5056 Mar 05 j 16:55	6° <del>5</del> 15'57	9.25667 AU	retrograde	-5050 Mar 04 j 12:46	15° <del>5</del> 59'16	
direct	-5056 May 16 j 08:06	2° <del>5</del> 57'59		opposition	-5050 May 14 j 14:00	12° <del>5</del> 39'04	1°52'37
evening set	-5056 Aug 26 j 14:39	9° <del>5</del> 53'32		min. Earth dist.	-5050 May 15 j 06:08	12° <del>5</del> 36'04	8.92515 AU
conjunction	-5056 Sep 12 j 01:26	11° <del>5</del> 46'24	2°23'42	direct	-5050 Jul 23 j 09:51	9° <del>5</del> 20'42	
minimum elong	-5056 Sep 12 j 01:25	11° <del>5</del> 46'24	2°23'55	evening set	-5050 Oct 31 j 03:31	16° <del>5</del> 25'55	
max. Earth dist.	-5056 Sep 11 j 14:08	11° <del>5</del> 43'09	11.26626 AU	conjunction	-5050 Nov 16 j 17:48	18° <del>5</del> 25'06	1°20'10
morning rise	-5056 Sep 28 j 09:36	13° <del>5</del> 38'36		minimum elong	-5050 Nov 16 j 17:51	18° <del>5</del> 25'07	1°20'06
	-5056 Oct 10 j 16:44	15° <del>5</del>		max. Earth dist.	-5050 Nov 16 j 00:06	18° <del>5</del> 19'46	10.85696 AU
retrograde	-5055 Jan 05 j 12:02	20° <del>5</del> 23'11		morning rise	-5050 Dec 03 j 11:01	20° <del>5</del> 25'16	
opposition	-5055 Mar 16 j 23:03	17° <del>5</del> 07'54	2°56'51	retrograde	-5049 Mar 17 j 07:14	27° <del>5</del> 49'17	
min. Earth dist.	-5055 Mar 17 j 10:22	17° <del>5</del> 05'51	9.27277 AU	opposition	-5049 May 27 j 04:06	24° <del>5</del> 27'21	1°22'10
	-5055 Apr 17 j 20:23	15° <del>5</del>		min. Earth dist.	-5049 May 27 j 19:07	24° <del>5</del> 24'31	8.78400 AU
direct	-5055 May 27 j 19:10	13° <del>5</del> 49'13		direct	-5049 Aug 04 j 10:32	21° <del>5</del> 08'16	
	-5055 Jul 05 j 21:34	15° <del>5</del>		evening set	-5049 Nov 12 j 00:40	28° <del>5</del> 20'35	
evening set	-5055 Sep 06 j 12:55	20° <del>5</del> 42'42			-5049 Nov 25 j 16:24	0° <del>5</del>	
conjunction	-5055 Sep 22 j 21:41	22° <del>5</del> 35'09	2°25'56	conjunction	-5049 Nov 28 j 18:36	0° <del>5</del> 22'43	0°53'14
minimum elong	-5055 Sep 22 j 21:42	22° <del>5</del> 35'09	2°26'06	minimum elong	-5049 Nov 28 j 18:38	0° <del>5</del> 22'44	0°53'06
max. Earth dist.	-5055 Sep 22 j 07:18	22° <del>5</del> 31'00	11.26739 AU	max. Earth dist.	-5049 Nov 28 j 02:11	0° <del>5</del> 17'42	10.70837 AU
morning rise	-5055 Oct 09 j 04:56	24° <del>5</del> 27'12		morning rise	-5049 Dec 15 j 16:08	2° <del>5</del> 26'05	
	-5055 Dec 08 j 08:21	0° <del>5</del>		retrograde	-5048 Mar 29 j 13:27	10° <del>5</del> 01'59	
retrograde	-5054 Jan 16 j 19:54	1° <del>5</del> 14'14		opposition	-5048 Jun 08 j 02:10	6° <del>5</del> 38'13	0°47'00
	-5054 Feb 26 j 11:58	30° <del>5</del>		min. Earth dist.	-5048 Jun 08 j 15:09	6° <del>5</del> 35'44	8.62851 AU
opposition	-5054 Mar 28 j 14:27	27° <del>5</del> 58'34	2°56'28	direct	-5048 Aug 15 j 16:03	3° <del>5</del> 18'13	
min. Earth dist.	-5054 Mar 29 j 03:38	27° <del>5</del> 56'10	9.25907 AU	evening set	-5048 Nov 23 j 08:30	10° <del>5</del> 39'11	
direct	-5054 Jun 08 j 05:58	24° <del>5</del> 40'26		conjunction	-5048 Dec 10 j 06:24	12° <del>5</del> 44'36	0°23'04
	-5054 Sep 03 j 08:00	0° <del>5</del>		minimum elong	-5048 Dec 10 j 06:25	12° <del>5</del> 44'36	0°22'54
evening set	-5054 Sep 17 j 10:07	1° <del>5</del> 33'17		max. Earth dist.	-5048 Dec 09 j 15:23	12° <del>5</del> 39'56	10.54887 AU
conjunction	-5054 Oct 03 j 18:05	3° <del>5</del> 25'55	2°22'56	morning rise	-5048 Dec 27 j 08:46	14° <del>5</del> 51'30	
minimum elong	-5054 Oct 03 j 18:07	3° <del>5</del> 25'56	2°23'04		-5048 Dec 28 j 12:42	15° <del>5</del>	
max. Earth dist.	-5054 Oct 03 j 02:35	3° <del>5</del> 21'26	11.23899 AU	retrograde	-5047 Apr 12 j 05:39	22° <del>5</del> 40'13	
morning rise	-5054 Oct 20 j 01:19	5° <del>5</del> 18'25		opposition	-5047 Jun 21 j 08:54	19° <del>5</del> 14'34	0°08'17
retrograde	-5053 Jan 28 j 09:56	12° <del>5</del> 09'38		min. Earth dist.	-5047 Jun 21 j 19:44	19° <del>5</del> 12'28	8.46623 AU
opposition	-5053 Apr 09 j 07:58	8° <del>5</del> 53'15	2°49'46	direct	-5047 Aug 28 j 05:20	15° <del>5</del> 53'23	
min. Earth dist.	-5053 Apr 09 j 21:58	8° <del>5</del> 50'42	9.21585 AU	desc. node	-5047 Sep 07 j 10:50	15° <del>5</del> 59'01	
direct	-5053 Jun 19 j 16:46	5° <del>5</del> 35'28		evening set	-5047 Dec 06 j 04:54	23° <del>5</del> 24'23	
evening set	-5053 Sep 28 j 08:21	12° <del>5</del> 29'05		conjunction	-5047 Dec 23 j 07:05	25° <del>5</del> 33'17	0°-9'-14
conjunction	-5053 Oct 14 j 16:34	14° <del>5</del> 22'32	2°14'43	minimum elong	-5047 Dec 23 j 07:04	25° <del>5</del> 33'17	0°09'28
minimum elong	-5053 Oct 14 j 16:37	14° <del>5</del> 22'33	2°14'48	behind sun begin	-5047 Dec 23 j 01:07	25° <del>5</del> 31'25	
max. Earth dist.	-5053 Oct 14 j 00:17	14° <del>5</del> 17'47	11.18175 AU	behind sun end	-5047 Dec 23 j 13:02	25° <del>5</del> 35'09	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 30

Attention, astronomical year style is used: The year -5047 in astronomical counting style is the year 5048 BCE in historical counting style.

max. Earth dist.	-5047 Dec 22 j 18:27	25° $\mathbb{M}$ 29'18	10.38644 AU		-5040 Feb 02 j 01:42	15° $\approx$	
morning rise	-5046 Jan 09 j 14:27	27° $\mathbb{M}$ 43'52		evening set	-5040 Mar 02 j 16:43	18° $\approx$ 40'02	
	-5046 Jan 28 j 12:40	0° $\mathcal{A}$					
retrograde	-5046 Apr 26 j 07:22	5° $\mathcal{A}$ 45'46		conjunction	-5040 Mar 20 j 17:17	21° $\approx$ 03'49	-2°-23'-20
opposition	-5046 Jul 05 j 00:22	2° $\mathcal{A}$ 18'15	0°-32'-20	minimum elong	-5040 Mar 20 j 17:17	21° $\approx$ 03'50	2°23'32
min. Earth dist.	-5046 Jul 05 j 08:40	2° $\mathcal{A}$ 16'37	8.30559 AU	max. Earth dist.	-5040 Mar 21 j 08:54	21° $\approx$ 09'03	9.81919 AU
	-5046 Aug 06 j 03:45	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-5040 Apr 07 j 20:04	23° $\approx$ 28'17	
direct	-5046 Sep 10 j 06:27	28° $\mathbb{M}$ 55'42			-5040 Jun 05 j 05:54	0° $\mathcal{H}$	
	-5046 Oct 14 j 14:45	0° $\mathcal{A}$		retrograde	-5040 Jul 23 j 19:49	2° $\mathcal{H}$ 07'03	
evening set	-5046 Dec 19 j 15:01	6° $\mathcal{A}$ 37'43			-5040 Sep 11 j 03:18	30° $\mathbb{R}$ $\approx$	
				opposition	-5040 Sep 28 j 10:09	28° $\approx$ 35'06	-2°-58'-48
conjunction	-5045 Jan 05 j 21:40	8° $\mathcal{A}$ 50'10	0°-41'-59	min. Earth dist.	-5040 Sep 27 j 21:22	28° $\approx$ 37'48	7.83228 AU
minimum elong	-5045 Jan 05 j 21:38	8° $\mathcal{A}$ 50'10	0°42'16	direct	-5040 Dec 03 j 08:40	25° $\approx$ 04'51	
max. Earth dist.	-5045 Jan 05 j 12:53	8° $\mathcal{A}$ 47'21	10.22959 AU		-5039 Feb 17 j 15:18	0° $\mathcal{H}$	
morning rise	-5045 Jan 23 j 09:49	11° $\mathcal{A}$ 04'25		evening set	-5039 Mar 18 j 12:39	3° $\mathcal{H}$ 33'58	
retrograde	-5045 May 10 j 20:08	19° $\mathcal{A}$ 19'05					
opposition	-5045 Jul 19 j 00:27	15° $\mathcal{A}$ 49'51	-1°-12'-46	conjunction	-5039 Apr 05 j 15:10	5° $\mathcal{H}$ 57'40	-2°-19'-9
min. Earth dist.	-5045 Jul 19 j 05:29	15° $\mathcal{A}$ 48'51	8.15530 AU	minimum elong	-5039 Apr 05 j 15:13	5° $\mathcal{H}$ 57'41	2°19'17
direct	-5045 Sep 23 j 17:01	12° $\mathcal{A}$ 25'49		max. Earth dist.	-5039 Apr 06 j 09:23	6° $\mathcal{H}$ 03'44	9.85113 AU
evening set	-5044 Jan 02 j 15:29	20° $\mathcal{A}$ 19'20		morning rise	-5039 Apr 23 j 18:39	8° $\mathcal{H}$ 21'35	
				retrograde	-5039 Aug 07 j 17:41	16° $\mathcal{H}$ 52'48	
conjunction	-5044 Jan 20 j 02:29	22° $\mathcal{A}$ 35'10	-1°-13'-26	opposition	-5039 Oct 13 j 02:42	13° $\mathcal{H}$ 21'50	-2°-47'-30
minimum elong	-5044 Jan 20 j 02:26	22° $\mathcal{A}$ 35'09	1°13'43	min. Earth dist.	-5039 Oct 12 j 12:36	13° $\mathcal{H}$ 24'48	7.88386 AU
max. Earth dist.	-5044 Jan 19 j 22:52	22° $\mathcal{A}$ 34'00	10.08711 AU	direct	-5039 Dec 18 j 10:53	9° $\mathcal{H}$ 51'10	
morning rise	-5044 Feb 06 j 18:51	24° $\mathcal{A}$ 52'48		evening set	-5038 Apr 03 j 05:36	18° $\mathcal{H}$ 17'59	
	-5044 Mar 22 j 07:01	0° $\mathcal{B}$					
retrograde	-5044 May 24 j 18:00	3° $\mathcal{B}$ 18'55		conjunction	-5038 Apr 21 j 09:10	20° $\mathcal{H}$ 40'40	-2°-5'-54
	-5044 Jul 29 j 22:34	30° $\mathbb{R}$ $\mathcal{A}$		minimum elong	-5038 Apr 21 j 09:14	20° $\mathcal{H}$ 40'41	2°05'58
opposition	-5044 Aug 01 j 08:19	29° $\mathcal{A}$ 48'15	-1°-50'-22	max. Earth dist.	-5038 Apr 22 j 04:44	20° $\mathcal{H}$ 47'06	9.92224 AU
min. Earth dist.	-5044 Aug 01 j 09:08	29° $\mathcal{A}$ 48'05	8.02416 AU	morning rise	-5038 May 09 j 12:18	23° $\mathcal{H}$ 03'04	
direct	-5044 Oct 06 j 13:22	26° $\mathcal{A}$ 22'43			-5038 Jul 14 j 08:40	0° $\mathcal{Y}$	
	-5044 Dec 09 j 16:19	0° $\mathcal{B}$		retrograde	-5038 Aug 22 j 06:08	1° $\mathcal{Y}$ 23'21	
evening set	-5043 Jan 16 j 06:02	4° $\mathcal{B}$ 27'29			-5038 Sep 30 j 11:23	30° $\mathbb{R}$ $\mathcal{H}$	
				opposition	-5038 Oct 27 j 13:18	27° $\mathcal{H}$ 53'48	-2°-25'-32
conjunction	-5043 Feb 02 j 21:07	6° $\mathcal{B}$ 46'20	-1°-41'-21	min. Earth dist.	-5038 Oct 26 j 22:26	27° $\mathcal{H}$ 56'54	7.97202 AU
minimum elong	-5043 Feb 02 j 21:03	6° $\mathcal{B}$ 46'19	1°41'38	direct	-5037 Jan 02 j 11:36	24° $\mathcal{H}$ 23'08	
max. Earth dist.	-5043 Feb 02 j 22:57	6° $\mathcal{B}$ 46'56	9.96788 AU		-5037 Mar 27 j 07:05	0° $\mathcal{Y}$	
morning rise	-5043 Feb 20 j 17:09	9° $\mathcal{B}$ 06'51		evening set	-5037 Apr 18 j 15:26	2° $\mathcal{Y}$ 44'24	
retrograde	-5043 Jun 08 j 22:52	17° $\mathcal{B}$ 42'01					
opposition	-5043 Aug 15 j 22:38	14° $\mathcal{B}$ 10'16	-2°-22'-14	conjunction	-5037 May 06 j 18:58	5° $\mathcal{Y}$ 05'12	-1°-44'-58
min. Earth dist.	-5043 Aug 15 j 19:04	14° $\mathcal{B}$ 11'00	7.92052 AU	minimum elong	-5037 May 06 j 19:02	5° $\mathcal{Y}$ 05'14	1°44'58
direct	-5043 Oct 20 j 19:35	10° $\mathcal{B}$ 43'16		max. Earth dist.	-5037 May 07 j 14:49	5° $\mathcal{Y}$ 11'40	10.02737 AU
evening set	-5042 Jan 31 j 09:07	18° $\mathcal{B}$ 58'09		morning rise	-5037 May 24 j 20:41	7° $\mathcal{Y}$ 25'19	
				retrograde	-5037 Sep 05 j 06:44	15° $\mathcal{Y}$ 32'28	
conjunction	-5042 Feb 18 j 03:55	21° $\mathcal{B}$ 19'26	-2°-3'-31	opposition	-5037 Nov 10 j 16:29	12° $\mathcal{Y}$ 04'39	-1°-55'-8
minimum elong	-5042 Feb 18 j 03:52	21° $\mathcal{B}$ 19'25	2°03'47	min. Earth dist.	-5037 Nov 10 j 01:18	12° $\mathcal{Y}$ 07'47	8.09070 AU
max. Earth dist.	-5042 Feb 18 j 11:01	21° $\mathcal{B}$ 21'48	9.87980 AU	direct	-5036 Jan 17 j 07:20	8° $\mathcal{Y}$ 34'26	
morning rise	-5042 Mar 08 j 02:58	23° $\mathcal{B}$ 42'09		evening set	-5036 May 02 j 15:01	16° $\mathcal{Y}$ 47'33	
	-5042 May 03 j 00:32	0° $\approx$					
retrograde	-5042 Jun 24 j 07:08	2° $\approx$ 22'53		conjunction	-5036 May 20 j 17:20	19° $\mathcal{Y}$ 05'47	-1°-18'-13
	-5042 Aug 16 j 14:31	30° $\mathbb{R}$ $\mathcal{B}$		minimum elong	-5036 May 20 j 17:24	19° $\mathcal{Y}$ 05'48	1°18'09
opposition	-5042 Aug 30 j 17:27	28° $\mathcal{B}$ 50'32	-2°-45'-35	max. Earth dist.	-5036 May 21 j 12:32	19° $\mathcal{Y}$ 11'57	10.15933 AU
min. Earth dist.	-5042 Aug 30 j 09:57	28° $\mathcal{B}$ 52'06	7.85122 AU	morning rise	-5036 Jun 07 j 16:32	21° $\mathcal{Y}$ 22'57	
direct	-5042 Nov 04 j 10:29	25° $\mathcal{B}$ 22'12		retrograde	-5036 Sep 17 j 20:16	29° $\mathcal{Y}$ 16'01	
	-5041 Jan 16 j 12:47	0° $\approx$		opposition	-5036 Nov 23 j 10:58	25° $\mathcal{Y}$ 50'09	-1°-19'00
evening set	-5041 Feb 15 j 22:03	3° $\approx$ 45'03		min. Earth dist.	-5036 Nov 22 j 20:08	25° $\mathcal{Y}$ 53'11	8.23214 AU
				direct	-5035 Jan 30 j 18:51	22° $\mathcal{Y}$ 20'45	
conjunction	-5041 Mar 05 j 20:00	6° $\approx$ 08'01	-2°-17'-58		-5035 May 13 j 20:28	0° $\mathcal{B}$	
minimum elong	-5041 Mar 05 j 19:58	6° $\approx$ 08'01	2°18'12	evening set	-5035 May 17 j 02:53	0° $\mathcal{B}$ 24'05	
max. Earth dist.	-5041 Mar 06 j 07:49	6° $\approx$ 11'59	9.82898 AU				
morning rise	-5041 Mar 23 j 21:17	8° $\approx$ 32'05		conjunction	-5035 Jun 04 j 02:44	2° $\mathcal{B}$ 39'14	0°-47'-48
	-5041 May 20 j 10:03	15° $\approx$		minimum elong	-5035 Jun 04 j 02:47	2° $\mathcal{B}$ 39'15	0°47'41
retrograde	-5041 Jul 09 j 15:08	17° $\approx$ 14'06		max. Earth dist.	-5035 Jun 04 j 20:33	2° $\mathcal{B}$ 44'51	10.30965 AU
	-5041 Aug 29 j 16:32	15° $\mathbb{R}$ $\approx$		morning rise	-5035 Jun 21 j 22:19	4° $\mathcal{B}$ 53'01	
opposition	-5041 Sep 14 j 14:09	13° $\approx$ 41'42	-2°-58'-11	retrograde	-5035 Sep 30 j 23:41	12° $\mathcal{B}$ 32'04	
min. Earth dist.	-5041 Sep 14 j 03:29	13° $\approx$ 43'56	7.82107 AU	opposition	-5035 Dec 06 j 20:27	9° $\mathcal{B}$ 08'15	0°-39'-49
direct	-5041 Nov 19 j 07:34	10° $\approx$ 12'15		min. Earth dist.	-5035 Dec 06 j 07:15	9° $\mathcal{B}$ 10'54	8.38781 AU



## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 31

Attention, astronomical year style is used: The year -5034 in astronomical counting style is the year 5035 BCE in historical counting style.

direct	-5034 Feb 13 j 20:45	5°♄39°56		min. Earth dist.	-5028 Feb 17 j 23:25	20°♄31°16	9.18610 AU
evening set	-5034 May 31 j 01:59	13°♄32°42		direct	-5028 Apr 29 j 13:38	17°♄11°48	
	-5034 Jun 11 j 22:40	15°♄		evening set	-5028 Aug 10 j 19:50	24°♄13°18	
conjunction	-5034 Jun 17 j 22:10	15°♄44°27	0°-15'-48	conjunction	-5028 Aug 27 j 11:04	26°♄07°51	2°11'04
minimum elong	-5034 Jun 17 j 22:11	15°♄44°27	0°15'38	minimum elong	-5028 Aug 27 j 11:02	26°♄07°51	2°11'20
behind sun begin	-5034 Jun 17 j 20:55	15°♄44°04		max. Earth dist.	-5028 Aug 27 j 02:21	26°♄05°20	11.21612 AU
behind sun end	-5034 Jun 17 j 23:27	15°♄44°50		morning rise	-5028 Sep 12 j 22:46	28°♄01°26	
max. Earth dist.	-5034 Jun 18 j 13:34	15°♄49°12	10.46959 AU		-5028 Oct 01 j 00:56	0°♄	
morning rise	-5034 Jul 05 j 13:19	17°♄54°38		retrograde	-5028 Dec 20 j 11:09	4°♄45°56	
retrograde	-5034 Oct 13 j 16:28	25°♄20°33		opposition	-5027 Feb 28 j 09:42	1°♄31°01	2°46'04
opposition	-5034 Dec 19 j 21:20	21°♄58°47	0°00'-5	min. Earth dist.	-5027 Feb 28 j 18:13	1°♄29°27	9.24214 AU
min. Earth dist.	-5034 Dec 19 j 10:47	22°♄00°52	8.54923 AU		-5027 Mar 21 j 23:06	30°♄	
asc. node	-5034 Dec 20 j 20:50	21°♄54°08		direct	-5027 May 11 j 08:20	28°♄11°26	
direct	-5033 Feb 27 j 13:28	18°♄31°45			-5027 Jun 29 j 05:43	0°♄	
evening set	-5033 Jun 13 j 11:58	26°♄13°48		evening set	-5027 Aug 21 j 23:03	5°♄08°50	
conjunction	-5033 Jul 01 j 03:32	28°♄22°01	0°16'02	conjunction	-5027 Sep 07 j 11:02	7°♄02°09	2°20'50
minimum elong	-5033 Jul 01 j 03:31	28°♄22°01	0°16'16	minimum elong	-5027 Sep 07 j 11:00	7°♄02°08	2°21'04
max. Earth dist.	-5033 Jul 01 j 15:14	28°♄25°34	10.63073 AU	max. Earth dist.	-5027 Sep 06 j 23:29	6°♄58°49	11.25692 AU
	-5033 Jul 14 j 14:17	0°♄		morning rise	-5027 Sep 23 j 20:10	8°♄54°41	
morning rise	-5033 Jul 18 j 13:49	0°♄28°38			-5027 Dec 03 j 09:55	15°♄	
retrograde	-5033 Oct 25 j 21:40	7°♄42°54		retrograde	-5027 Dec 31 j 18:03	15°♄39°05	
opposition	-5032 Jan 01 j 13:58	4°♄23°00	0°38'10		-5026 Jan 29 j 14:07	15°♄	
min. Earth dist.	-5032 Jan 01 j 06:28	4°♄24°27	8.70828 AU	opposition	-5026 Mar 12 j 00:33	12°♄24°06	2°54'49
direct	-5032 Mar 11 j 22:12	0°♄57°21		min. Earth dist.	-5026 Mar 12 j 11:01	12°♄22°12	9.26832 AU
evening set	-5032 Jun 25 j 09:39	8°♄29°09		direct	-5026 May 22 j 22:54	9°♄05°16	
conjunction	-5032 Jul 12 j 20:06	10°♄33°55	0°46'08		-5026 Aug 23 j 23:01	15°♄	
minimum elong	-5032 Jul 12 j 20:03	10°♄33°54	0°46'23	evening set	-5026 Sep 01 j 22:43	15°♄59°54	
max. Earth dist.	-5032 Jul 13 j 03:16	10°♄36°04	10.78541 AU	conjunction	-5026 Sep 18 j 08:29	17°♄52°34	2°25'28
morning rise	-5032 Jul 30 j 01:19	12°♄37°05		minimum elong	-5026 Sep 18 j 08:28	17°♄52°33	2°25'40
retrograde	-5032 Nov 05 j 19:48	19°♄41°27		max. Earth dist.	-5026 Sep 17 j 19:11	17°♄48°43	11.26784 AU
opposition	-5031 Jan 12 j 22:59	16°♄23°10	1°13'25	morning rise	-5026 Oct 04 j 15:58	19°♄44°40	
min. Earth dist.	-5031 Jan 12 j 18:12	16°♄24°05	8.85754 AU	retrograde	-5025 Jan 12 j 01:49	26°♄30°42	
direct	-5031 Mar 24 j 20:41	12°♄58°57		opposition	-5025 Mar 23 j 15:40	23°♄15°18	2°57'22
evening set	-5031 Jul 07 j 19:54	20°♄21°19		min. Earth dist.	-5025 Mar 24 j 04:13	23°♄13°01	9.26432 AU
conjunction	-5031 Jul 25 j 01:06	22°♄22°53	1°13'24	direct	-5025 Jun 03 j 09:51	19°♄56°56	
minimum elong	-5031 Jul 25 j 01:04	22°♄22°52	1°13'40	evening set	-5025 Sep 12 j 20:34	26°♄50°15	
max. Earth dist.	-5031 Jul 25 j 04:19	22°♄23°50	10.92671 AU	conjunction	-5025 Sep 29 j 04:56	28°♄42°51	2°24'55
morning rise	-5031 Aug 11 j 01:13	24°♄22°56		minimum elong	-5025 Sep 29 j 04:56	28°♄42°51	2°25'04
	-5031 Oct 08 j 19:45	0°♄		max. Earth dist.	-5025 Sep 28 j 13:02	28°♄38°15	11.24886 AU
retrograde	-5031 Nov 17 j 11:08	1°♄19°19			-5025 Oct 10 j 08:35	0°♄	
	-5031 Dec 28 j 03:44	30°♄		morning rise	-5025 Oct 15 j 12:01	0°♄35°09	
opposition	-5030 Jan 25 j 01:52	28°♄02°22	1°44'29	retrograde	-5024 Jan 23 j 13:05	7°♄24°31	
min. Earth dist.	-5030 Jan 24 j 23:45	28°♄02°46	8.99043 AU	opposition	-5024 Apr 03 j 08:22	4°♄08°23	2°53'36
direct	-5030 Apr 06 j 10:03	24°♄39°30		min. Earth dist.	-5024 Apr 03 j 23:21	4°♄05°39	9.23046 AU
	-5030 Jul 02 j 19:12	0°♄		direct	-5024 Jun 13 j 20:10	0°♄50°14	
evening set	-5030 Jul 19 j 19:50	1°♄53°32		evening set	-5024 Sep 22 j 18:24	7°♄43°41	
conjunction	-5030 Aug 05 j 20:00	3°♄52°16	1°37'01	max. Earth dist.	-5024 Oct 08 j 08:19	9°♄31°33	11.20074 AU
minimum elong	-5030 Aug 05 j 19:57	3°♄52°15	1°37'17	conjunction	-5024 Oct 09 j 02:19	9°♄36°47	2°19'07
max. Earth dist.	-5030 Aug 05 j 20:00	3°♄52°16	11.04859 AU	minimum elong	-5024 Oct 09 j 02:21	9°♄36°48	2°19'13
morning rise	-5030 Aug 22 j 15:12	5°♄49°37		morning rise	-5024 Oct 25 j 10:07	11°♄29°54	
retrograde	-5030 Nov 28 j 23:05	12°♄40°02		retrograde	-5023 Feb 03 j 02:33	18°♄24°20	
opposition	-5029 Feb 05 j 23:47	9°♄24°06	2°10'37	opposition	-5023 Apr 15 j 03:45	15°♄07°07	2°43'33
min. Earth dist.	-5029 Feb 06 j 01:09	9°♄23°51	9.10136 AU	min. Earth dist.	-5023 Apr 15 j 20:02	15°♄04°08	9.16790 AU
direct	-5029 Apr 18 j 16:02	6°♄02°30		direct	-5023 Jun 25 j 06:51	11°♄48°57	
evening set	-5029 Jul 31 j 11:17	13°♄09°31		evening set	-5023 Oct 03 j 17:56	18°♄44°03	
conjunction	-5029 Aug 17 j 06:42	15°♄05°54	1°56'23	max. Earth dist.	-5023 Oct 19 j 08:26	20°♄32°56	11.12504 AU
minimum elong	-5029 Aug 17 j 06:40	15°♄05°53	1°56'39	conjunction	-5023 Oct 20 j 02:38	20°♄38°16	2°08'07
max. Earth dist.	-5029 Aug 17 j 02:42	15°♄04°44	11.14613 AU	minimum elong	-5023 Oct 20 j 02:41	20°♄38°17	2°08'11
morning rise	-5029 Sep 02 j 21:42	17°♄01°04		morning rise	-5023 Nov 05 j 12:00	22°♄32°47	
retrograde	-5029 Dec 10 j 05:59	23°♄47°32		retrograde	-5022 Feb 15 j 01:00	29°♄33°57	
opposition	-5028 Feb 17 j 17:52	20°♄32°17	2°31'16	opposition	-5022 Apr 27 j 03:10	26°♄15°24	2°27'15

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 32

Attention, astronomical year style is used: The year -5022 in astronomical counting style is the year 5023 BCE in historical counting style.

min. Earth dist.	-5022 Apr 27 j 19:11	26° $\mathbb{M}$ 12'27	9.07871 AU	max. Earth dist.	-5017 Dec 30 j 15:44	2° $\mathbb{Z}$ 53'34	10.29384 AU
direct	-5022 Jul 06 j 20:46	22° $\mathbb{M}$ 57'02		morning rise	-5016 Jan 17 j 10:08	5° $\mathbb{Z}$ 08'56	
evening set	-5022 Oct 14 j 21:10	29° $\mathbb{M}$ 55'15		retrograde	-5016 May 03 j 13:30	13° $\mathbb{Z}$ 17'57	
	-5022 Oct 15 j 13:32	0° $\mathbb{A}$		opposition	-5016 Jul 11 j 23:19	9° $\mathbb{Z}$ 49'15	0°-54'-21
				min. Earth dist.	-5016 Jul 12 j 04:04	9° $\mathbb{Z}$ 48'18	8.21820 AU
conjunction	-5022 Oct 31 j 07:37	1° $\mathbb{A}$ 51'12	1°52'04	direct	-5016 Sep 16 j 21:20	6° $\mathbb{Z}$ 25'48	
minimum elong	-5022 Oct 31 j 07:40	1° $\mathbb{A}$ 51'12	1°52'05	evening set	-5016 Dec 26 j 13:25	14° $\mathbb{Z}$ 14'05	
max. Earth dist.	-5022 Oct 30 j 13:37	1° $\mathbb{A}$ 45'52	11.02413 AU				
morning rise	-5022 Nov 16 j 19:31	3° $\mathbb{A}$ 47'41		conjunction	-5015 Jan 12 j 22:21	16° $\mathbb{Z}$ 28'25	0°-59'-16
retrograde	-5021 Feb 27 j 06:32	10° $\mathbb{A}$ 57'12		minimum elong	-5015 Jan 12 j 22:19	16° $\mathbb{Z}$ 28'24	0°59'32
opposition	-5021 May 09 j 07:48	7° $\mathbb{A}$ 37'06	2°04'54	max. Earth dist.	-5015 Jan 12 j 17:26	16° $\mathbb{Z}$ 26'49	10.14797 AU
min. Earth dist.	-5021 May 09 j 23:26	7° $\mathbb{A}$ 34'12	8.96570 AU	morning rise	-5015 Jan 30 j 12:45	18° $\mathbb{Z}$ 44'33	
direct	-5021 Jul 18 j 11:17	4° $\mathbb{A}$ 18'21		retrograde	-5015 May 18 j 08:19	27° $\mathbb{Z}$ 05'44	
evening set	-5021 Oct 26 j 06:19	11° $\mathbb{A}$ 21'18		opposition	-5015 Jul 26 j 03:58	23° $\mathbb{Z}$ 35'40	-1°-33'-36
				min. Earth dist.	-5015 Jul 26 j 05:13	23° $\mathbb{Z}$ 35'25	8.08147 AU
conjunction	-5021 Nov 11 j 19:12	13° $\mathbb{A}$ 19'28	1°31'15	direct	-5015 Sep 30 j 12:36	20° $\mathbb{Z}$ 10'56	
minimum elong	-5021 Nov 11 j 19:15	13° $\mathbb{A}$ 19'29	1°31'12	evening set	-5014 Jan 09 j 21:46	28° $\mathbb{Z}$ 10'40	
max. Earth dist.	-5021 Nov 11 j 00:50	13° $\mathbb{A}$ 13'58	10.90131 AU		-5014 Jan 23 j 21:12	0° $\mathbb{Z}$	
morning rise	-5021 Nov 28 j 10:36	15° $\mathbb{A}$ 18'28					
retrograde	-5020 Mar 10 j 19:55	22° $\mathbb{A}$ 37'51		conjunction	-5014 Jan 27 j 10:50	0° $\mathbb{Z}$ 28'09	-1°-29'-4
opposition	-5020 May 20 j 18:43	19° $\mathbb{A}$ 16'05	1°36'52	minimum elong	-5014 Jan 27 j 10:46	0° $\mathbb{Z}$ 28'08	1°29'21
min. Earth dist.	-5020 May 21 j 10:03	19° $\mathbb{A}$ 13'13	8.83280 AU	max. Earth dist.	-5014 Jan 27 j 10:23	0° $\mathbb{Z}$ 28'00	10.02136 AU
direct	-5020 Jul 29 j 07:44	15° $\mathbb{A}$ 56'43		morning rise	-5014 Feb 14 j 05:18	2° $\mathbb{Z}$ 47'24	
evening set	-5020 Nov 05 j 23:12	23° $\mathbb{A}$ 06'02		retrograde	-5014 Jun 02 j 10:26	11° $\mathbb{Z}$ 18'46	
				opposition	-5014 Aug 09 j 15:42	7° $\mathbb{Z}$ 47'43	-2°-8'-26
conjunction	-5020 Nov 22 j 15:17	25° $\mathbb{A}$ 06'54	1°06'06	min. Earth dist.	-5014 Aug 09 j 13:35	7° $\mathbb{Z}$ 48'09	7.96850 AU
minimum elong	-5020 Nov 22 j 15:20	25° $\mathbb{A}$ 06'55	1°05'59	direct	-5014 Oct 14 j 14:58	4° $\mathbb{Z}$ 21'40	
max. Earth dist.	-5020 Nov 21 j 21:30	25° $\mathbb{A}$ 01'29	10.76096 AU	evening set	-5013 Jan 24 j 19:35	12° $\mathbb{Z}$ 32'06	
morning rise	-5020 Dec 09 j 10:56	27° $\mathbb{A}$ 08'54					
	-5019 Jan 03 j 15:19	0° $\mathbb{M}$		conjunction	-5013 Feb 11 j 12:30	14° $\mathbb{Z}$ 52'16	-1°-54'-8
retrograde	-5019 Mar 23 j 19:34	4° $\mathbb{M}$ 39'32		minimum elong	-5013 Feb 11 j 12:26	14° $\mathbb{Z}$ 52'15	1°54'24
opposition	-5019 Jun 02 j 13:15	1° $\mathbb{M}$ 16'00	1°03'44	max. Earth dist.	-5013 Feb 11 j 17:12	14° $\mathbb{Z}$ 53'50	9.92233 AU
min. Earth dist.	-5019 Jun 03 j 03:31	1° $\mathbb{M}$ 13'18	8.68502 AU	morning rise	-5013 Mar 01 j 10:20	17° $\mathbb{Z}$ 14'02	
	-5019 Jun 19 j 15:06	30° $\mathbb{R}$ $\mathbb{A}$		retrograde	-5013 Jun 17 j 16:55	25° $\mathbb{Z}$ 52'34	
direct	-5019 Aug 10 j 10:43	27° $\mathbb{A}$ 55'49		opposition	-5013 Aug 24 j 08:59	22° $\mathbb{Z}$ 20'53	-2°-35'-58
	-5019 Sep 29 j 00:54	0° $\mathbb{M}$		min. Earth dist.	-5013 Aug 24 j 03:12	22° $\mathbb{Z}$ 22'05	7.88685 AU
evening set	-5019 Nov 18 j 01:41	5° $\mathbb{M}$ 13'00		direct	-5013 Oct 29 j 03:02	18° $\mathbb{Z}$ 53'37	
				evening set	-5012 Feb 09 j 04:23	27° $\mathbb{Z}$ 12'57	
conjunction	-5019 Dec 04 j 21:42	7° $\mathbb{M}$ 16'59	0°37'17				
minimum elong	-5019 Dec 04 j 21:44	7° $\mathbb{M}$ 17'00	0°37'08	conjunction	-5012 Feb 27 j 00:45	29° $\mathbb{Z}$ 35'08	-2°-12'-18
max. Earth dist.	-5019 Dec 04 j 06:31	7° $\mathbb{M}$ 12'17	10.60842 AU	minimum elong	-5012 Feb 27 j 00:42	29° $\mathbb{Z}$ 35'07	2°12'34
morning rise	-5019 Dec 21 j 21:57	9° $\mathbb{M}$ 22'21		max. Earth dist.	-5012 Feb 27 j 10:43	29° $\mathbb{Z}$ 38'28	9.85785 AU
	-5018 Feb 14 j 04:27	15° $\mathbb{M}$			-5012 Mar 01 j 03:10	0° $\mathbb{Z}$	
retrograde	-5018 Apr 06 j 05:44	17° $\mathbb{M}$ 05'22		morning rise	-5012 Mar 16 j 01:08	1° $\mathbb{Z}$ 58'35	
	-5018 May 28 j 21:30	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-5012 Jul 02 j 00:49	10° $\mathbb{Z}$ 40'19	
opposition	-5018 Jun 15 j 15:55	13° $\mathbb{M}$ 40'01	0°26'28	opposition	-5012 Sep 07 j 05:21	7° $\mathbb{Z}$ 08'28	-2°-53'-39
min. Earth dist.	-5018 Jun 16 j 03:40	13° $\mathbb{M}$ 37'45	8.52841 AU	min. Earth dist.	-5012 Sep 06 j 20:00	7° $\mathbb{Z}$ 10'26	7.84219 AU
direct	-5018 Aug 22 j 21:37	10° $\mathbb{M}$ 18'53		direct	-5012 Nov 11 j 21:45	3° $\mathbb{Z}$ 40'06	
	-5018 Nov 07 j 03:14	15° $\mathbb{M}$		evening set	-5011 Feb 23 j 20:57	12° $\mathbb{Z}$ 05'38	
evening set	-5018 Nov 30 j 16:02	17° $\mathbb{M}$ 45'22					
				conjunction	-5011 Mar 13 j 20:18	14° $\mathbb{Z}$ 29'00	-2°-21'-55
conjunction	-5018 Dec 17 j 16:22	19° $\mathbb{M}$ 52'46	0°05'52	minimum elong	-5011 Mar 13 j 20:17	14° $\mathbb{Z}$ 28'59	2°22'08
minimum elong	-5018 Dec 17 j 16:22	19° $\mathbb{M}$ 52'46	0°05'41	max. Earth dist.	-5011 Mar 14 j 10:54	14° $\mathbb{Z}$ 33'53	9.83249 AU
behind sun begin	-5018 Dec 17 j 09:33	19° $\mathbb{M}$ 50'39			-5011 Mar 17 j 16:58	15° $\mathbb{Z}$	
behind sun end	-5018 Dec 17 j 23:12	19° $\mathbb{M}$ 54'53		morning rise	-5011 Mar 31 j 22:28	16° $\mathbb{Z}$ 53'14	
max. Earth dist.	-5018 Dec 17 j 04:22	19° $\mathbb{M}$ 49'00	10.45017 AU	retrograde	-5011 Jul 17 j 07:22	25° $\mathbb{Z}$ 33'37	
morning rise	-5017 Jan 03 j 21:22	22° $\mathbb{M}$ 01'43		opposition	-5011 Sep 22 j 01:54	22° $\mathbb{Z}$ 02'02	-2°-59'-47
desc. node	-5017 Feb 23 j 08:34	27° $\mathbb{M}$ 27'20		min. Earth dist.	-5011 Sep 21 j 13:35	22° $\mathbb{Z}$ 04'37	7.83725 AU
retrograde	-5017 Apr 20 j 03:39	29° $\mathbb{M}$ 57'44		direct	-5011 Nov 26 j 21:28	18° $\mathbb{Z}$ 32'45	
opposition	-5017 Jun 29 j 03:07	26° $\mathbb{M}$ 30'37	0°-13'-31	evening set	-5010 Mar 11 j 16:52	27° $\mathbb{Z}$ 01'07	
min. Earth dist.	-5017 Jun 29 j 11:31	26° $\mathbb{M}$ 28'59	8.37009 AU				
direct	-5017 Sep 04 j 17:22	23° $\mathbb{M}$ 08'23		conjunction	-5010 Mar 29 j 18:36	29° $\mathbb{Z}$ 24'47	-2°-22'-6
	-5017 Dec 07 j 17:00	0° $\mathbb{Z}$		minimum elong	-5010 Mar 29 j 18:37	29° $\mathbb{Z}$ 24'47	2°22'15
evening set	-5017 Dec 13 j 19:40	0° $\mathbb{Z}$ 45'24		max. Earth dist.	-5010 Mar 30 j 12:31	29° $\mathbb{Z}$ 30'46	9.84729 AU
					-5010 Apr 03 j 04:12	0° $\mathbb{Z}$	
conjunction	-5017 Dec 31 j 00:21	2° $\mathbb{Z}$ 56'19	0°-26'-57	morning rise	-5010 Apr 16 j 21:44	1° $\mathbb{Z}$ 48'51	
minimum elong	-5017 Dec 31 j 00:20	2° $\mathbb{Z}$ 56'18	0°27'12	retrograde	-5010 Aug 01 j 08:52	10° $\mathbb{Z}$ 23'30	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 33

Attention, astronomical year style is used: The year -5010 in astronomical counting style is the year 5011 BCE in historical counting style.

opposition	-5010 Oct 06 j 20:08	6° $\text{K}$ 52'39	-2°-53'-50	max. Earth dist.	-5004 Jun 25 j 03:35	23° $\text{B}$ 02'54	10.54839 AU
min. Earth dist.	-5010 Oct 06 j 05:57	6° $\text{K}$ 55'38	7.87112 AU	morning rise	-5004 Jul 12 j 04:45	25° $\text{B}$ 07'45	
direct	-5010 Dec 11 j 23:13	3° $\text{K}$ 22'48			-5004 Aug 27 j 00:42	0° $\text{II}$	
evening set	-5009 Mar 27 j 11:33	11° $\text{K}$ 50'31		retrograde	-5004 Oct 19 j 20:13	2° $\text{II}$ 27'41	
					-5004 Dec 14 j 19:58	30° $\text{R}$ 8	
conjunction	-5009 Apr 14 j 14:48	14° $\text{K}$ 13'36	-2°-12'-52	opposition	-5004 Dec 26 j 07:34	29° $\text{B}$ 06'42	0°21'17
minimum elong	-5009 Apr 14 j 14:51	14° $\text{K}$ 13'37	2°12'58	min. Earth dist.	-5004 Dec 25 j 22:43	29° $\text{B}$ 08'26	8.62520 AU
max. Earth dist.	-5009 Apr 15 j 10:25	14° $\text{K}$ 20'06	9.89984 AU	direct	-5003 Mar 06 j 09:55	25° $\text{B}$ 40'09	
morning rise	-5009 May 02 j 17:58	16° $\text{K}$ 36'37			-5003 May 21 j 13:44	0° $\text{II}$	
retrograde	-5009 Aug 16 j 02:35	25° $\text{K}$ 01'58		evening set	-5003 Jun 20 j 01:44	3° $\text{II}$ 17'06	
opposition	-5009 Oct 21 j 09:39	21° $\text{K}$ 32'20	-2°-36'-32				
min. Earth dist.	-5009 Oct 20 j 18:50	21° $\text{K}$ 35'25	7.94058 AU	conjunction	-5003 Jul 07 j 14:49	5° $\text{II}$ 23'36	0°32'55
direct	-5009 Dec 27 j 00:14	18° $\text{K}$ 02'15		minimum elong	-5003 Jul 07 j 14:48	5° $\text{II}$ 23'35	0°33'10
evening set	-5008 Apr 11 j 01:05	26° $\text{K}$ 26'07		max. Earth dist.	-5003 Jul 07 j 23:39	5° $\text{II}$ 26'16	10.70277 AU
				morning rise	-5003 Jul 24 j 22:25	7° $\text{II}$ 28'28	
conjunction	-5008 Apr 29 j 04:51	28° $\text{K}$ 47'47	-1°-55'-14	retrograde	-5003 Oct 31 j 23:17	14° $\text{II}$ 37'41	
minimum elong	-5008 Apr 29 j 04:55	28° $\text{K}$ 47'48	1°55'16	opposition	-5002 Jan 07 j 20:20	11° $\text{II}$ 18'17	0°58'06
max. Earth dist.	-5008 Apr 30 j 00:50	28° $\text{K}$ 54'20	9.98645 AU	min. Earth dist.	-5002 Jan 07 j 14:27	11° $\text{II}$ 19'25	8.77592 AU
	-5008 May 08 j 09:49	0° $\text{Y}$		direct	-5002 Mar 19 j 11:53	7° $\text{II}$ 52'59	
morning rise	-5008 May 17 j 07:08	1° $\text{Y}$ 08'57		evening set	-5002 Jul 02 j 17:24	15° $\text{II}$ 20'05	
retrograde	-5008 Aug 29 j 09:52	9° $\text{Y}$ 22'20					
opposition	-5008 Nov 03 j 16:32	5° $\text{Y}$ 54'14	-2°-9'-42	conjunction	-5002 Jul 20 j 01:14	17° $\text{II}$ 23'16	1°01'37
min. Earth dist.	-5008 Nov 03 j 02:02	5° $\text{Y}$ 57'15	8.04166 AU	minimum elong	-5002 Jul 20 j 01:12	17° $\text{II}$ 23'15	1°01'53
direct	-5007 Jan 09 j 22:02	2° $\text{Y}$ 24'18		max. Earth dist.	-5002 Jul 20 j 06:32	17° $\text{II}$ 24'51	10.84761 AU
evening set	-5007 Apr 26 j 06:10	10° $\text{Y}$ 41'27		morning rise	-5002 Aug 06 j 03:38	19° $\text{II}$ 24'52	
				retrograde	-5002 Nov 12 j 17:12	26° $\text{II}$ 25'11	
conjunction	-5007 May 14 j 09:14	13° $\text{Y}$ 00'57	-1°-30'-52	opposition	-5001 Jan 20 j 02:22	23° $\text{II}$ 07'10	1°31'13
minimum elong	-5007 May 14 j 09:18	13° $\text{Y}$ 00'58	1°30'50	min. Earth dist.	-5001 Jan 20 j 00:00	23° $\text{II}$ 07'37	8.91436 AU
max. Earth dist.	-5007 May 15 j 04:18	13° $\text{Y}$ 07'06	10.10212 AU	direct	-5001 Apr 01 j 05:19	19° $\text{II}$ 43'07	
morning rise	-5007 Jun 01 j 09:37	15° $\text{Y}$ 19'31		evening set	-5001 Jul 14 j 22:04	27° $\text{II}$ 01'21	
retrograde	-5007 Sep 12 j 05:09	23° $\text{Y}$ 19'21					
opposition	-5007 Nov 17 j 15:34	19° $\text{Y}$ 53'00	-1°-35'-50	conjunction	-5001 Aug 01 j 00:33	29° $\text{II}$ 01'31	1°26'59
min. Earth dist.	-5007 Nov 17 j 02:06	19° $\text{Y}$ 55'46	8.16850 AU	minimum elong	-5001 Aug 01 j 00:30	29° $\text{II}$ 01'30	1°27'15
direct	-5006 Jan 24 j 13:47	16° $\text{Y}$ 23'31		max. Earth dist.	-5001 Aug 01 j 01:22	29° $\text{II}$ 01'45	10.97712 AU
evening set	-5006 May 11 j 00:15	24° $\text{Y}$ 31'49			-5001 Aug 09 j 07:14	0° $\text{B}$	
				morning rise	-5001 Aug 17 j 22:08	1° $\text{B}$ 00'15	
conjunction	-5006 May 29 j 01:18	26° $\text{Y}$ 48'30	-1°-1'-50	retrograde	-5001 Nov 24 j 05:25	7° $\text{B}$ 53'39	
minimum elong	-5006 May 29 j 01:21	26° $\text{Y}$ 48'31	1°01'44	opposition	-5000 Feb 01 j 02:34	4° $\text{B}$ 36'43	1°59'41
max. Earth dist.	-5006 May 29 j 18:15	26° $\text{Y}$ 53'52	10.23980 AU	min. Earth dist.	-5000 Feb 01 j 03:00	4° $\text{B}$ 36'38	9.03504 AU
morning rise	-5006 Jun 15 j 22:42	29° $\text{Y}$ 03'56		direct	-5000 Apr 12 j 15:56	1° $\text{B}$ 13'55	
	-5006 Jun 23 j 13:08	0° $\text{B}$		evening set	-5000 Jul 25 j 17:25	8° $\text{B}$ 24'31	
retrograde	-5006 Sep 25 j 13:06	6° $\text{B}$ 49'44					
opposition	-5006 Dec 01 j 05:45	3° $\text{B}$ 25'14	0°-57'-41	conjunction	-5000 Aug 11 j 14:58	10° $\text{B}$ 22'05	1°48'20
min. Earth dist.	-5006 Nov 30 j 17:36	3° $\text{B}$ 27'41	8.31357 AU	minimum elong	-5000 Aug 11 j 14:55	10° $\text{B}$ 22'04	1°48'36
	-5005 Jan 30 j 19:08	30° $\text{R}$ Y		max. Earth dist.	-5000 Aug 11 j 12:11	10° $\text{B}$ 21'16	11.08654 AU
direct	-5005 Feb 07 j 21:44	29° $\text{Y}$ 56'31		morning rise	-5000 Aug 28 j 08:03	12° $\text{B}$ 18'21	
	-5005 Feb 16 j 00:49	0° $\text{B}$		retrograde	-5000 Dec 04 j 14:05	19° $\text{B}$ 06'48	
evening set	-5005 May 25 j 05:46	7° $\text{B}$ 54'39		opposition	-4999 Feb 11 j 22:11	15° $\text{B}$ 50'41	2°22'51
				min. Earth dist.	-4999 Feb 12 j 00:51	15° $\text{B}$ 50'12	9.13359 AU
conjunction	-5005 Jun 12 j 03:40	10° $\text{B}$ 08'05	0°-30'-17	direct	-4999 Apr 24 j 17:49	12° $\text{B}$ 29'07	
minimum elong	-5005 Jun 12 j 03:41	10° $\text{B}$ 08'05	0°30'08	evening set	-4999 Aug 06 j 04:55	19° $\text{B}$ 33'22	
max. Earth dist.	-5005 Jun 12 j 17:51	10° $\text{B}$ 12'30	10.39137 AU				
morning rise	-5005 Jun 29 j 21:08	12° $\text{B}$ 20'03		conjunction	-4999 Aug 22 j 22:10	21° $\text{B}$ 28'50	2°05'10
	-5005 Jul 22 j 16:03	15° $\text{B}$		minimum elong	-4999 Aug 22 j 22:07	21° $\text{B}$ 28'49	2°05'25
retrograde	-5005 Oct 08 j 09:47	19° $\text{B}$ 52'20		max. Earth dist.	-4999 Aug 22 j 17:00	21° $\text{B}$ 27'20	11.17215 AU
opposition	-5005 Dec 14 j 10:59	16° $\text{B}$ 29'38	0°-17'-54	morning rise	-4999 Sep 08 j 11:17	23° $\text{B}$ 23'10	
min. Earth dist.	-5005 Dec 14 j 00:08	16° $\text{B}$ 31'47	8.46858 AU		-4999 Dec 02 j 18:05	0° $\text{B}$	
	-5004 Jan 02 j 22:07	15° $\text{R}$ 8		retrograde	-4999 Dec 15 j 21:13	0° $\text{B}$ 08'36	
direct	-5004 Feb 21 j 20:37	13° $\text{B}$ 01'55			-4999 Dec 29 j 01:52	30° $\text{R}$ 8	
	-5004 Apr 11 j 02:14	15° $\text{B}$		opposition	-4998 Feb 23 j 14:58	26° $\text{B}$ 53'03	2°40'19
asc. node	-5004 Jun 02 j 17:21	20° $\text{B}$ 19'16		min. Earth dist.	-4998 Feb 23 j 20:20	26° $\text{B}$ 52'04	9.20676 AU
evening set	-5004 Jun 06 j 22:05	20° $\text{B}$ 49'22		direct	-4998 May 06 j 13:53	23° $\text{B}$ 32'36	
					-4998 Aug 12 j 16:34	0° $\text{B}$	
conjunction	-5004 Jun 24 j 15:57	22° $\text{B}$ 59'20	0°01'54	evening set	-4998 Aug 17 j 10:13	0° $\text{B}$ 31'52	
minimum elong	-5004 Jun 24 j 15:57	22° $\text{B}$ 59'20	0°02'07				
behind sun begin	-5004 Jun 24 j 08:44	22° $\text{B}$ 57'09		conjunction	-4998 Sep 02 j 23:44	2° $\text{B}$ 25'45	2°17'09
behind sun end	-5004 Jun 24 j 23:10	23° $\text{B}$ 01'32		minimum elong	-4998 Sep 02 j 23:43	2° $\text{B}$ 25'45	2°17'23

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 34

Attention, astronomical year style is used: The year -4998 in astronomical counting style is the year 4999 BCE in historical counting style.

max. Earth dist.	-4998 Sep 02 j 15:33	2°♂23'24	11.23124 AU	max. Earth dist.	-4992 Nov 05 j 05:59	8°♂15'06	10.98798 AU
morning rise	-4998 Sep 19 j 09:52	4°♂18'45		morning rise	-4992 Nov 22 j 12:54	10°♂17'43	
retrograde	-4998 Dec 27 j 03:05	11°♂03'01		retrograde	-4991 Mar 05 j 10:36	17°♂31'15	
opposition	-4997 Mar 07 j 06:04	7°♂47'44	2°51'46	opposition	-4991 May 15 j 11:43	14°♂11'01	1°50'03
min. Earth dist.	-4997 Mar 07 j 14:39	7°♂46'10	9.25232 AU	min. Earth dist.	-4991 May 16 j 02:45	14°♂08'13	8.92586 AU
direct	-4997 May 18 j 04:11	4°♂28'15		direct	-4991 Jul 24 j 08:46	10°♂52'41	
evening set	-4997 Aug 28 j 11:14	11°♂23'57		evening set	-4991 Nov 01 j 00:12	17°♂57'42	
conjunction	-4997 Sep 13 j 21:50	13°♂16'51	2°24'05	conjunction	-4991 Nov 17 j 14:40	19°♂56'55	1°17'56
minimum elong	-4997 Sep 13 j 21:49	13°♂16'51	2°24'17	minimum elong	-4991 Nov 17 j 14:43	19°♂56'55	1°17'51
max. Earth dist.	-4997 Sep 13 j 10:11	13°♂13'29	11.26206 AU	max. Earth dist.	-4991 Nov 16 j 22:05	19°♂51'55	10.85855 AU
	-4997 Sep 28 j 21:53	15°♂		morning rise	-4991 Dec 04 j 07:58	21°♂57'05	
morning rise	-4997 Sep 30 j 06:05	15°♂09'06		retrograde	-4990 Mar 18 j 06:09	29°♂21'01	
retrograde	-4996 Jan 07 j 08:18	21°♂54'00		opposition	-4990 May 28 j 01:46	25°♂59'04	1°19'15
opposition	-4996 Mar 17 j 20:29	18°♂38'39	2°57'02	min. Earth dist.	-4990 May 28 j 15:40	25°♂56'27	8.78652 AU
min. Earth dist.	-4996 Mar 18 j 07:35	18°♂36'38	9.26879 AU	direct	-4990 Aug 05 j 07:00	22°♂40'03	
direct	-4996 May 28 j 16:49	15°♂19'56		evening set	-4990 Nov 12 j 21:19	29°♂52'02	
evening set	-4996 Sep 07 j 09:29	22°♂13'33			-4990 Nov 13 j 23:54	0°♂	
conjunction	-4996 Sep 23 j 18:18	24°♂06'02	2°25'49	conjunction	-4990 Nov 29 j 15:18	1°♂54'08	0°50'46
minimum elong	-4996 Sep 23 j 18:18	24°♂06'03	2°25'59	minimum elong	-4990 Nov 29 j 15:20	1°♂54'09	0°50'38
max. Earth dist.	-4996 Sep 23 j 04:40	24°♂02'07	11.26363 AU	max. Earth dist.	-4990 Nov 28 j 22:54	1°♂49'07	10.71177 AU
morning rise	-4996 Oct 10 j 01:32	25°♂58'08		morning rise	-4990 Dec 16 j 13:04	3°♂57'30	
	-4996 Nov 18 j 15:51	0°♂		retrograde	-4989 Mar 31 j 10:22	11°♂33'10	
retrograde	-4995 Jan 17 j 18:27	2°♂45'28		opposition	-4989 Jun 09 j 23:35	8°♂09'24	0°43'53
	-4995 Mar 22 j 12:27	30°♂		min. Earth dist.	-4989 Jun 10 j 12:25	8°♂06'58	8.63263 AU
opposition	-4995 Mar 29 j 11:57	29°♂29'42	2°56'02	direct	-4989 Aug 17 j 12:16	4°♂49'27	
min. Earth dist.	-4995 Mar 30 j 00:08	29°♂27'30	9.25553 AU	evening set	-4989 Nov 25 j 05:08	12°♂10'04	
direct	-4995 Jun 09 j 04:10	26°♂11'36		max. Earth dist.	-4989 Dec 11 j 11:47	14°♂10'41	10.55361 AU
	-4995 Aug 20 j 06:35	0°♂		conjunction	-4989 Dec 12 j 03:03	14°♂15'26	0°20'30
evening set	-4995 Sep 18 j 06:43	3°♂04'28		minimum elong	-4989 Dec 12 j 03:04	14°♂15'26	0°20'19
conjunction	-4995 Oct 04 j 14:48	4°♂57'10	2°22'20		-4989 Dec 18 j 02:27	15°♂	
minimum elong	-4995 Oct 04 j 14:50	4°♂57'11	2°22'28	morning rise	-4989 Dec 29 j 05:39	16°♂22'17	
max. Earth dist.	-4995 Oct 04 j 00:16	4°♂52'58	11.23575 AU	retrograde	-4988 Apr 13 j 01:13	24°♂10'41	
morning rise	-4995 Oct 20 j 22:00	6°♂49'44		opposition	-4988 Jun 22 j 05:51	20°♂45'04	0°05'06
retrograde	-4994 Jan 29 j 07:14	13°♂41'11		min. Earth dist.	-4988 Jun 22 j 17:06	20°♂42'53	8.47141 AU
opposition	-4994 Apr 10 j 05:43	10°♂24'43	2°48'45	desc. node	-4988 Aug 09 j 09:09	17°♂44'36	
min. Earth dist.	-4994 Apr 10 j 19:08	10°♂22'17	9.21292 AU	direct	-4988 Aug 29 j 03:15	17°♂23'55	
direct	-4994 Jun 20 j 12:46	7°♂06'58		evening set	-4988 Dec 07 j 01:19	24°♂54'33	
evening set	-4994 Sep 29 j 05:04	14°♂00'36		conjunction	-4988 Dec 24 j 03:37	27°♂03'24	0°-11'-46
conjunction	-4994 Oct 15 j 13:17	15°♂54'05	2°13'38	minimum elong	-4988 Dec 24 j 03:36	27°♂03'24	0°12'00
minimum elong	-4994 Oct 15 j 13:19	15°♂54'06	2°13'43	behind sun begin	-4988 Dec 23 j 22:42	27°♂01'51	
max. Earth dist.	-4994 Oct 14 j 20:57	15°♂49'20	11.17929 AU	behind sun end	-4988 Dec 24 j 08:31	27°♂04'56	
morning rise	-4994 Oct 31 j 21:40	17°♂47'42		max. Earth dist.	-4988 Dec 23 j 15:24	26°♂59'33	10.39197 AU
retrograde	-4993 Feb 10 j 01:49	24°♂44'54		morning rise	-4987 Jan 10 j 11:04	29°♂13'55	
opposition	-4993 Apr 22 j 02:46	21°♂27'29	2°35'11		-4987 Jan 16 j 17:13	0°♂	
min. Earth dist.	-4993 Apr 22 j 17:46	21°♂24'44	9.14230 AU	retrograde	-4987 Apr 27 j 03:51	7°♂15'27	
direct	-4993 Jul 02 j 00:10	18°♂09'47		opposition	-4987 Jul 05 j 20:57	3°♂47'59	0°-35'-25
evening set	-4993 Oct 10 j 06:10	25°♂05'41		min. Earth dist.	-4987 Jul 06 j 05:20	3°♂46'20	8.31138 AU
				direct	-4987 Sep 11 j 03:02	0°♂25'29	
conjunction	-4993 Oct 26 j 15:29	27°♂00'32	1°59'49	evening set	-4987 Dec 20 j 11:12	8°♂07'07	
minimum elong	-4993 Oct 26 j 15:32	27°♂00'33	1°59'52	conjunction	-4986 Jan 06 j 18:00	10°♂19'29	0°-44'-23
max. Earth dist.	-4993 Oct 25 j 21:41	26°♂55'18	11.09595 AU	minimum elong	-4986 Jan 06 j 17:58	10°♂19'29	0°44'39
morning rise	-4993 Nov 12 j 02:09	28°♂55'49		max. Earth dist.	-4986 Jan 06 j 10:08	10°♂16'58	10.23549 AU
	-4993 Nov 21 j 12:29	0°♂		morning rise	-4986 Jan 24 j 06:05	12°♂33'38	
retrograde	-4992 Feb 22 j 01:35	6°♂00'23		retrograde	-4986 May 11 j 16:22	20°♂47'55	
opposition	-4992 May 03 j 04:25	2°♂41'41	2°15'32	opposition	-4986 Jul 19 j 20:36	17°♂18'44	-1°-15'-34
min. Earth dist.	-4992 May 03 j 20:10	2°♂38'47	9.04567 AU	min. Earth dist.	-4986 Jul 20 j 01:09	17°♂17'49	8.16133 AU
	-4992 Jun 15 j 01:01	30°♂		direct	-4986 Sep 24 j 13:17	13°♂54'47	
direct	-4992 Jul 12 j 13:38	29°♂23'48		evening set	-4985 Jan 03 j 11:38	21°♂47'55	
	-4992 Aug 08 j 15:39	0°♂		conjunction	-4985 Jan 20 j 22:44	24°♂03'40	-1°-15'-32
evening set	-4992 Oct 20 j 11:49	6°♂23'29		minimum elong	-4985 Jan 20 j 22:41	24°♂03'39	1°15'49
conjunction	-4992 Nov 05 j 23:19	8°♂20'15	1°41'08	max. Earth dist.	-4985 Jan 20 j 19:34	24°♂02'38	10.09307 AU
minimum elong	-4992 Nov 05 j 23:21	8°♂20'16	1°41'07				

Attention, astronomical year style is used: The year -4985 in astronomical counting style is the year 4986 BCE in historical counting style.

morning rise	-4985 Feb 07 j 15:01	26° $\text{X}$ 21'10		evening set	-4979 Apr 04 j 00:20	19° $\text{X}$ 42'25	
	-4985 Mar 09 j 22:52	0° $\text{Z}$					
retrograde	-4985 May 26 j 13:50	4° $\text{Z}$ 46'51		conjunction	-4979 Apr 22 j 04:02	22° $\text{X}$ 05'06	-2°-4'-45
opposition	-4985 Aug 03 j 03:55	1° $\text{Z}$ 16'14	-1°-52'-43	minimum elong	-4979 Apr 22 j 04:06	22° $\text{X}$ 05'07	2°04'48
min. Earth dist.	-4985 Aug 03 j 04:14	1° $\text{Z}$ 16'10	8.03009 AU	max. Earth dist.	-4979 Apr 22 j 23:08	22° $\text{X}$ 11'24	9.92333 AU
	-4985 Aug 19 j 03:20	30° $\text{R}$ $\text{X}$		morning rise	-4979 May 10 j 07:12	24° $\text{X}$ 27'30	
direct	-4985 Oct 08 j 09:22	27° $\text{X}$ 50'46			-4979 Jun 27 j 19:07	0° $\text{Y}$	
	-4985 Nov 25 j 22:12	0° $\text{Z}$		retrograde	-4979 Aug 22 j 23:03	2° $\text{Y}$ 47'36	
evening set	-4984 Jan 18 j 02:03	5° $\text{Z}$ 55'12			-4979 Oct 19 j 21:01	30° $\text{R}$ $\text{X}$	
				opposition	-4979 Oct 28 j 07:16	29° $\text{X}$ 18'05	-2°-23'-47
conjunction	-4984 Feb 04 j 17:07	8° $\text{Z}$ 13'57	-1°-43'-2	min. Earth dist.	-4979 Oct 27 j 16:20	29° $\text{X}$ 21'12	7.97237 AU
minimum elong	-4984 Feb 04 j 17:03	8° $\text{Z}$ 13'56	1°43'19	direct	-4978 Jan 03 j 06:43	25° $\text{X}$ 47'25	
max. Earth dist.	-4984 Feb 04 j 18:38	8° $\text{Z}$ 14'27	9.97358 AU		-4978 Mar 15 j 11:13	0° $\text{Y}$	
morning rise	-4984 Feb 22 j 13:06	10° $\text{Z}$ 34'21		evening set	-4978 Apr 19 j 10:07	4° $\text{Y}$ 08'41	
retrograde	-4984 Jun 09 j 18:13	19° $\text{Z}$ 09'03					
opposition	-4984 Aug 16 j 17:54	15° $\text{Z}$ 37'23	-2°-24'00	conjunction	-4978 May 07 j 13:49	6° $\text{Y}$ 29'32	-1°-43'-21
min. Earth dist.	-4984 Aug 16 j 14:17	15° $\text{Z}$ 38'08	7.92603 AU	minimum elong	-4978 May 07 j 13:53	6° $\text{Y}$ 29'33	1°43'21
direct	-4984 Oct 21 j 14:41	12° $\text{Z}$ 10'26		max. Earth dist.	-4978 May 08 j 09:39	6° $\text{Y}$ 35'59	10.02704 AU
evening set	-4983 Feb 01 j 04:50	20° $\text{Z}$ 25'00		morning rise	-4978 May 25 j 15:29	8° $\text{Y}$ 49'39	
				retrograde	-4978 Sep 06 j 00:37	16° $\text{Y}$ 56'44	
conjunction	-4983 Feb 18 j 23:31	22° $\text{Z}$ 46'11	-2°-4'-41	opposition	-4978 Nov 11 j 10:27	13° $\text{Y}$ 28'55	-1°-52'-54
minimum elong	-4983 Feb 18 j 23:28	22° $\text{Z}$ 46'10	2°04'57	min. Earth dist.	-4978 Nov 10 j 19:11	13° $\text{Y}$ 32'04	8.08957 AU
max. Earth dist.	-4983 Feb 19 j 05:45	22° $\text{Z}$ 48'15	9.88501 AU	direct	-4977 Jan 18 j 00:45	9° $\text{Y}$ 58'41	
morning rise	-4983 Mar 08 j 22:35	25° $\text{Z}$ 08'48		evening set	-4977 May 04 j 09:45	18° $\text{Y}$ 11'54	
	-4983 Apr 18 j 15:43	0° $\text{X}$					
retrograde	-4983 Jun 25 j 02:24	3° $\text{X}$ 49'04		conjunction	-4977 May 22 j 12:10	20° $\text{Y}$ 30'12	-1°-16'-15
opposition	-4983 Aug 31 j 12:22	0° $\text{X}$ 16'49	-2°-46'-40	minimum elong	-4977 May 22 j 12:13	20° $\text{Y}$ 30'13	1°16'11
min. Earth dist.	-4983 Aug 31 j 05:27	0° $\text{X}$ 18'16	7.85610 AU	max. Earth dist.	-4977 May 23 j 07:38	20° $\text{Y}$ 36'26	10.15751 AU
	-4983 Sep 03 j 20:56	30° $\text{R}$ $\text{Z}$		morning rise	-4977 Jun 09 j 11:12	22° $\text{Y}$ 47'22	
direct	-4983 Nov 05 j 04:38	26° $\text{Z}$ 48'30			-4977 Aug 23 j 15:05	0° $\text{Z}$	
	-4982 Jan 03 j 19:08	0° $\text{X}$		retrograde	-4977 Sep 19 j 15:53	0° $\text{Z}$ 40'29	
evening set	-4982 Feb 16 j 17:31	5° $\text{X}$ 11'05			-4977 Oct 16 j 19:44	30° $\text{R}$ $\text{Y}$	
				opposition	-4977 Nov 25 j 05:08	27° $\text{Y}$ 14'36	-1°-16'-24
conjunction	-4982 Mar 06 j 15:24	7° $\text{X}$ 33'59	-2°-18'-33	min. Earth dist.	-4977 Nov 24 j 14:41	27° $\text{Y}$ 17'33	8.22960 AU
minimum elong	-4982 Mar 06 j 15:22	7° $\text{X}$ 33'58	2°18'46	direct	-4976 Feb 01 j 11:56	23° $\text{Y}$ 45'09	
max. Earth dist.	-4982 Mar 07 j 01:56	7° $\text{X}$ 37'30	9.83350 AU		-4976 May 02 j 20:47	0° $\text{Z}$	
morning rise	-4982 Mar 24 j 16:47	9° $\text{X}$ 57'58		evening set	-4976 May 17 j 21:39	1° $\text{Z}$ 48'41	
	-4982 May 05 j 22:46	15° $\text{X}$					
retrograde	-4982 Jul 10 j 10:33	18° $\text{X}$ 39'32		conjunction	-4976 Jun 04 j 21:28	4° $\text{Z}$ 03'54	0°-45'-36
opposition	-4982 Sep 15 j 08:44	15° $\text{X}$ 07'13	-2°-58'-30	minimum elong	-4976 Jun 04 j 21:31	4° $\text{Z}$ 03'55	0°45'29
min. Earth dist.	-4982 Sep 14 j 23:06	15° $\text{X}$ 09'15	7.82512 AU	max. Earth dist.	-4976 Jun 05 j 15:17	4° $\text{Z}$ 09'31	10.30649 AU
	-4982 Sep 16 j 19:05	15° $\text{R}$ $\text{X}$		morning rise	-4976 Jun 22 j 16:56	6° $\text{Z}$ 17'43	
direct	-4982 Nov 20 j 02:14	11° $\text{X}$ 37'46		retrograde	-4976 Oct 01 j 18:36	13° $\text{Z}$ 56'53	
	-4981 Jan 20 j 14:36	15° $\text{X}$		opposition	-4976 Dec 07 j 14:48	10° $\text{Z}$ 33'04	0°-37'00
evening set	-4981 Mar 04 j 12:00	20° $\text{X}$ 05'23		min. Earth dist.	-4976 Dec 07 j 02:31	10° $\text{Z}$ 35'32	8.38409 AU
				direct	-4975 Feb 14 j 14:58	7° $\text{Z}$ 04'40	
conjunction	-4981 Mar 22 j 12:32	22° $\text{X}$ 29'06	-2°-23'-18	evening set	-4975 May 31 j 20:52	14° $\text{Z}$ 57'45	
minimum elong	-4981 Mar 22 j 12:32	22° $\text{X}$ 29'06	2°23'29		-4975 Jun 01 j 04:19	15° $\text{Z}$	
max. Earth dist.	-4981 Mar 23 j 02:47	22° $\text{X}$ 33'52	9.82275 AU				
morning rise	-4981 Apr 09 j 15:26	24° $\text{X}$ 53'31		conjunction	-4975 Jun 18 j 16:55	17° $\text{Z}$ 09'32	0°-13'-29
	-4981 May 22 j 15:56	0° $\text{X}$		minimum elong	-4975 Jun 18 j 16:56	17° $\text{Z}$ 09'32	0°13'19
retrograde	-4981 Jul 25 j 14:38	3° $\text{X}$ 31'52		behind sun begin	-4975 Jun 18 j 12:51	17° $\text{Z}$ 08'17	
opposition	-4981 Sep 30 j 04:30	0° $\text{X}$ 00'01	-2°-58'-22	behind sun end	-4975 Jun 18 j 21:00	17° $\text{Z}$ 10'47	
min. Earth dist.	-4981 Sep 29 j 16:37	0° $\text{X}$ 02'32	7.83524 AU	max. Earth dist.	-4975 Jun 19 j 07:28	17° $\text{Z}$ 14'02	10.46529 AU
	-4981 Sep 30 j 04:37	30° $\text{R}$ $\text{X}$		morning rise	-4975 Jul 06 j 08:02	19° $\text{Z}$ 19'47	
direct	-4981 Dec 05 j 04:03	26° $\text{X}$ 29'46		retrograde	-4975 Oct 14 j 10:00	26° $\text{Z}$ 45'56	
	-4980 Feb 06 j 07:38	0° $\text{X}$		asc. node	-4975 Nov 23 j 23:18	25° $\text{Z}$ 22'18	
evening set	-4980 Mar 19 j 07:37	4° $\text{X}$ 58'46		opposition	-4975 Dec 20 j 15:54	23° $\text{Z}$ 24'08	0°02'48
				min. Earth dist.	-4975 Dec 20 j 06:02	23° $\text{Z}$ 26'04	8.54451 AU
conjunction	-4980 Apr 06 j 10:10	7° $\text{X}$ 22'25	-2°-18'-31	direct	-4974 Feb 28 j 09:12	19° $\text{Z}$ 57'01	
minimum elong	-4980 Apr 06 j 10:12	7° $\text{X}$ 22'26	2°18'39	evening set	-4974 Jun 14 j 07:05	27° $\text{Z}$ 39'28	
max. Earth dist.	-4980 Apr 07 j 03:23	7° $\text{X}$ 28'09	9.85351 AU				
morning rise	-4980 Apr 24 j 13:42	9° $\text{X}$ 46'18		conjunction	-4974 Jul 01 j 22:27	29° $\text{Z}$ 47'43	0°18'22
retrograde	-4980 Aug 08 j 11:33	18° $\text{X}$ 17'14		minimum elong	-4974 Jul 01 j 22:27	29° $\text{Z}$ 47'42	0°18'36
opposition	-4980 Oct 13 j 20:49	14° $\text{X}$ 46'20	-2°-46'-21	max. Earth dist.	-4974 Jul 02 j 09:06	29° $\text{Z}$ 50'57	10.62554 AU
min. Earth dist.	-4980 Oct 13 j 07:05	14° $\text{X}$ 49'13	7.88558 AU		-4974 Jul 03 j 14:46	0° $\text{Z}$	
direct	-4980 Dec 19 j 06:46	11° $\text{X}$ 15'39		morning rise	-4974 Jul 19 j 08:42	1° $\text{Z}$ 54'22	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 36

Attention, astronomical year style is used: The year -4974 in astronomical counting style is the year 4975 BCE in historical counting style.

retrograde	-4974 Oct 26 j 16:47	9° $\Pi$ 08'57		retrograde	-4967 Jan 01 j 14:59	17° $\Omega$ 08'57	
opposition	-4973 Jan 02 j 08:48	5° $\Pi$ 49'00	0°41'01		-4967 Feb 25 j 11:06	15° $\mathbb{R}$ $\Omega$	
min. Earth dist.	-4973 Jan 02 j 01:08	5° $\Pi$ 50'30	8.70277 AU	opposition	-4967 Mar 12 j 21:30	13° $\Omega$ 53'57	2°55'16
direct	-4973 Mar 13 j 16:58	2° $\Pi$ 23'19		min. Earth dist.	-4967 Mar 13 j 07:30	13° $\Omega$ 52'08	9.26599 AU
evening set	-4973 Jun 27 j 04:54	9° $\Pi$ 55'31		direct	-4967 May 23 j 18:51	10° $\Omega$ 35'08	
					-4967 Aug 10 j 13:06	15° $\Omega$	
conjunction	-4973 Jul 14 j 15:13	12° $\Pi$ 00'20	0°48'23	evening set	-4967 Sep 02 j 19:02	17° $\Omega$ 29'51	
minimum elong	-4973 Jul 14 j 15:11	12° $\Pi$ 00'19	0°48'37				
max. Earth dist.	-4973 Jul 14 j 22:18	12° $\Pi$ 02'28	10.77964 AU	conjunction	-4967 Sep 19 j 04:40	19° $\Omega$ 22'31	2°25'35
morning rise	-4973 Jul 31 j 20:18	14° $\Pi$ 03'33		minimum elong	-4967 Sep 19 j 04:40	19° $\Omega$ 22'31	2°25'46
retrograde	-4973 Nov 07 j 14:47	21° $\Pi$ 08'19		max. Earth dist.	-4967 Sep 18 j 15:30	19° $\Omega$ 18'43	11.26585 AU
opposition	-4972 Jan 14 j 18:15	17° $\Pi$ 49'58	1°16'05	morning rise	-4967 Oct 05 j 12:09	21° $\Omega$ 14'39	
min. Earth dist.	-4972 Jan 14 j 12:48	17° $\Pi$ 51'01	8.85162 AU	retrograde	-4966 Jan 12 j 23:07	28° $\Omega$ 00'54	
direct	-4972 Mar 25 j 15:58	14° $\Pi$ 25'43		opposition	-4966 Mar 24 j 12:59	24° $\Omega$ 45'30	2°57'12
evening set	-4972 Jul 08 j 15:17	21° $\Pi$ 48'29		min. Earth dist.	-4966 Mar 25 j 01:50	24° $\Omega$ 43'10	9.26270 AU
				direct	-4966 Jun 04 j 06:26	21° $\Omega$ 27'11	
conjunction	-4972 Jul 25 j 20:27	23° $\Pi$ 50'06	1°15'28	evening set	-4966 Sep 13 j 16:56	28° $\Omega$ 20'31	
minimum elong	-4972 Jul 25 j 20:24	23° $\Pi$ 50'05	1°15'44		-4966 Sep 28 j 03:50	0° $\mathbb{M}$	
max. Earth dist.	-4972 Jul 26 j 00:35	23° $\Pi$ 51'19	10.92076 AU	max. Earth dist.	-4966 Sep 29 j 09:05	0° $\mathbb{M}$ 08'27	11.24763 AU
morning rise	-4972 Aug 11 j 20:19	25° $\Pi$ 50'12					
	-4972 Sep 20 j 15:17	0° $\mathfrak{S}$		conjunction	-4966 Sep 30 j 01:11	0° $\mathbb{M}$ 13'07	2°24'32
retrograde	-4972 Nov 18 j 07:50	2° $\mathfrak{S}$ 47'01		minimum elong	-4966 Sep 30 j 01:12	0° $\mathbb{M}$ 13'07	2°24'41
	-4971 Jan 19 j 05:43	30° $\mathbb{R}$ $\Pi$		morning rise	-4966 Oct 16 j 08:24	2° $\mathbb{M}$ 05'28	
opposition	-4971 Jan 25 j 21:34	29° $\Pi$ 30'01	1°46'53	retrograde	-4965 Jan 24 j 08:37	8° $\mathbb{M}$ 55'02	
min. Earth dist.	-4971 Jan 25 j 19:26	29° $\Pi$ 30'25	8.98458 AU	opposition	-4965 Apr 05 j 05:50	5° $\mathbb{M}$ 38'52	2°52'51
direct	-4971 Apr 07 j 05:49	26° $\Pi$ 07'08		min. Earth dist.	-4965 Apr 05 j 20:35	5° $\mathbb{M}$ 36'11	9.22955 AU
	-4971 Jun 19 j 06:10	0° $\mathfrak{S}$		direct	-4965 Jun 15 j 16:55	2° $\mathbb{M}$ 20'47	
evening set	-4971 Jul 20 j 15:36	3° $\mathfrak{S}$ 21'32		evening set	-4965 Sep 24 j 14:47	9° $\mathbb{M}$ 14'13	
conjunction	-4971 Aug 06 j 15:35	5° $\mathfrak{S}$ 20'18	1°38'49	conjunction	-4965 Oct 10 j 22:51	11° $\mathbb{M}$ 07'20	2°18'15
minimum elong	-4971 Aug 06 j 15:32	5° $\mathfrak{S}$ 20'18	1°39'05	minimum elong	-4965 Oct 10 j 22:53	11° $\mathbb{M}$ 07'21	2°18'21
max. Earth dist.	-4971 Aug 06 j 15:54	5° $\mathfrak{S}$ 20'24	11.04297 AU	max. Earth dist.	-4965 Oct 10 j 05:44	11° $\mathbb{M}$ 02'22	11.20020 AU
morning rise	-4971 Aug 23 j 10:36	7° $\mathfrak{S}$ 17'41		morning rise	-4965 Oct 27 j 06:42	13° $\mathbb{M}$ 00'29	
retrograde	-4971 Nov 29 j 18:43	14° $\mathfrak{S}$ 08'30		retrograde	-4964 Feb 05 j 01:03	19° $\mathbb{M}$ 55'04	
opposition	-4970 Feb 06 j 19:56	10° $\mathfrak{S}$ 52'32	2°12'37	opposition	-4964 Apr 16 j 01:11	16° $\mathbb{M}$ 37'50	2°42'13
min. Earth dist.	-4970 Feb 06 j 21:40	10° $\mathfrak{S}$ 52'13	9.09621 AU	min. Earth dist.	-4964 Apr 16 j 16:29	16° $\mathbb{M}$ 35'02	9.16762 AU
direct	-4970 Apr 19 j 10:17	7° $\mathfrak{S}$ 30'54		direct	-4964 Jun 26 j 05:17	13° $\mathbb{M}$ 19'45	
evening set	-4970 Aug 01 j 07:20	14° $\mathfrak{S}$ 38'14		evening set	-4964 Oct 04 j 14:25	20° $\mathbb{M}$ 14'45	
conjunction	-4970 Aug 18 j 02:28	16° $\mathfrak{S}$ 34'38	1°57'50	conjunction	-4964 Oct 20 j 23:18	22° $\mathbb{M}$ 09'01	2°06'48
minimum elong	-4970 Aug 18 j 02:25	16° $\mathfrak{S}$ 34'37	1°58'06	minimum elong	-4964 Oct 20 j 23:20	22° $\mathbb{M}$ 09'02	2°06'51
max. Earth dist.	-4970 Aug 17 j 22:04	16° $\mathfrak{S}$ 33'21	11.14148 AU	max. Earth dist.	-4964 Oct 20 j 05:59	22° $\mathbb{M}$ 03'56	11.12506 AU
morning rise	-4970 Sep 03 j 17:24	18° $\mathfrak{S}$ 29'50		morning rise	-4964 Nov 06 j 08:42	24° $\mathbb{M}$ 03'33	
retrograde	-4970 Dec 11 j 01:24	25° $\mathfrak{S}$ 16'39			-4963 Jan 10 j 00:41	0° $\underline{\Omega}$	
opposition	-4969 Feb 18 j 14:26	22° $\mathfrak{S}$ 01'21	2°32'48	retrograde	-4963 Feb 15 j 22:41	1° $\underline{\Omega}$ 04'49	
min. Earth dist.	-4969 Feb 18 j 19:36	22° $\mathfrak{S}$ 00'24	9.18207 AU		-4963 Mar 25 j 16:21	30° $\mathbb{R}$ $\mathbb{M}$	
direct	-4969 May 01 j 11:01	18° $\mathfrak{S}$ 40'49		opposition	-4963 Apr 28 j 00:42	27° $\mathbb{M}$ 46'15	2°25'22
evening set	-4969 Aug 12 j 15:51	25° $\mathfrak{S}$ 42'31		min. Earth dist.	-4963 Apr 28 j 16:05	27° $\mathbb{M}$ 43'25	9.07896 AU
				direct	-4963 Jul 07 j 16:47	24° $\mathbb{M}$ 27'59	
conjunction	-4969 Aug 29 j 06:57	27° $\mathfrak{S}$ 37'05	2°12'07		-4963 Oct 03 j 01:33	0° $\underline{\Omega}$	
minimum elong	-4969 Aug 29 j 06:55	27° $\mathfrak{S}$ 37'04	2°12'22	evening set	-4963 Oct 15 j 17:43	1° $\underline{\Omega}$ 26'03	
max. Earth dist.	-4969 Aug 28 j 22:47	27° $\mathfrak{S}$ 34'44	11.21259 AU	max. Earth dist.	-4963 Oct 31 j 10:01	3° $\underline{\Omega}$ 16'37	11.02474 AU
morning rise	-4969 Sep 14 j 18:32	29° $\mathfrak{S}$ 30'40					
	-4969 Sep 19 j 02:53	0° $\Omega$		conjunction	-4963 Nov 01 j 04:13	3° $\underline{\Omega}$ 22'01	1°50'20
retrograde	-4969 Dec 22 j 08:36	6° $\Omega$ 15'28		minimum elong	-4963 Nov 01 j 04:16	3° $\underline{\Omega}$ 22'01	1°50'21
opposition	-4968 Mar 01 j 06:28	3° $\Omega$ 00'29	2°47'05	morning rise	-4963 Nov 17 j 16:20	5° $\underline{\Omega}$ 18'32	
min. Earth dist.	-4968 Mar 01 j 13:57	2° $\Omega$ 59'07	9.23907 AU	retrograde	-4962 Feb 28 j 03:42	12° $\underline{\Omega}$ 28'05	
	-4968 Apr 21 j 21:48	30° $\mathbb{R}$ $\mathfrak{S}$		opposition	-4962 May 10 j 05:28	9° $\underline{\Omega}$ 08'00	2°02'33
direct	-4968 May 12 j 05:35	29° $\mathfrak{S}$ 40'56		min. Earth dist.	-4962 May 10 j 21:17	9° $\underline{\Omega}$ 05'04	8.96656 AU
	-4968 Jun 01 j 07:53	0° $\Omega$		direct	-4962 Jul 19 j 08:31	5° $\underline{\Omega}$ 49'17	
evening set	-4968 Aug 22 j 19:10	6° $\Omega$ 38'26		evening set	-4962 Oct 27 j 02:52	12° $\underline{\Omega}$ 52'04	
conjunction	-4968 Sep 08 j 07:09	8° $\Omega$ 31'46	2°21'25	conjunction	-4962 Nov 12 j 15:50	14° $\underline{\Omega}$ 50'15	1°29'10
minimum elong	-4968 Sep 08 j 07:08	8° $\Omega$ 31'45	2°21'38	minimum elong	-4962 Nov 12 j 15:53	14° $\underline{\Omega}$ 50'16	1°29'07
max. Earth dist.	-4968 Sep 07 j 20:43	8° $\Omega$ 28'45	11.25423 AU	max. Earth dist.	-4962 Nov 11 j 21:27	14° $\underline{\Omega}$ 44'44	10.90258 AU
morning rise	-4968 Sep 24 j 16:06	10° $\Omega$ 24'19		morning rise	-4962 Nov 29 j 07:33	16° $\underline{\Omega}$ 49'18	
	-4968 Nov 10 j 05:10	15° $\Omega$		retrograde	-4961 Mar 12 j 16:55	24° $\underline{\Omega}$ 08'38	

## Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 37

Attention, astronomical year style is used: The year -4961 in astronomical counting style is the year 4962 BCE in historical counting style.

opposition	-4961 May 22 j 16:17	20° $\text{♁}$ 46'53	1°34'07	conjunction	-4955 Jan 28 j 06:46	1° $\text{♄}$ 56'15	-1°-30'-58
min. Earth dist.	-4961 May 23 j 07:46	20° $\text{♁}$ 43'58	8.83433 AU	minimum elong	-4955 Jan 28 j 06:42	1° $\text{♄}$ 56'13	1°31'14
direct	-4961 Jul 31 j 04:44	17° $\text{♁}$ 27'31		max. Earth dist.	-4955 Jan 28 j 06:24	1° $\text{♄}$ 56'08	10.02380 AU
evening set	-4961 Nov 07 j 19:40	24° $\text{♁}$ 36'37		morning rise	-4955 Feb 15 j 01:14	4° $\text{♄}$ 15'26	
				retrograde	-4955 Jun 03 j 04:30	12° $\text{♄}$ 46'33	
conjunction	-4961 Nov 24 j 12:00	26° $\text{♁}$ 37'30	1°03'44	opposition	-4955 Aug 10 j 11:12	9° $\text{♄}$ 15'28	-2°-10'-30
minimum elong	-4961 Nov 24 j 12:02	26° $\text{♁}$ 37'31	1°03'38	min. Earth dist.	-4955 Aug 10 j 09:21	9° $\text{♄}$ 15'50	7.97077 AU
max. Earth dist.	-4961 Nov 23 j 19:08	26° $\text{♁}$ 32'23	10.76279 AU	direct	-4955 Oct 15 j 11:19	5° $\text{♄}$ 49'22	
morning rise	-4961 Dec 11 j 07:48	28° $\text{♁}$ 39'32		evening set	-4954 Jan 25 j 15:13	13° $\text{♄}$ 59'38	
	-4961 Dec 22 j 19:06	0° $\text{♁}$					
retrograde	-4960 Mar 24 j 15:50	6° $\text{♁}$ 10'05		conjunction	-4954 Feb 12 j 08:16	16° $\text{♄}$ 19'46	-1°-55'-33
opposition	-4960 Jun 03 j 10:29	2° $\text{♁}$ 46'31	1°00'43	minimum elong	-4954 Feb 12 j 08:13	16° $\text{♄}$ 19'45	1°55'49
min. Earth dist.	-4960 Jun 04 j 00:13	2° $\text{♁}$ 43'54	8.68708 AU	max. Earth dist.	-4954 Feb 12 j 13:25	16° $\text{♄}$ 21'29	9.92430 AU
	-4960 Jul 16 j 13:01	30° $\text{♁}$		morning rise	-4954 Mar 02 j 06:02	18° $\text{♄}$ 41'28	
direct	-4960 Aug 11 j 08:24	29° $\text{♁}$ 26'22		retrograde	-4954 Jun 18 j 11:30	27° $\text{♄}$ 19'47	
	-4960 Sep 05 j 16:46	0° $\text{♁}$		opposition	-4954 Aug 25 j 04:07	23° $\text{♄}$ 48'05	-2°-37'-23
evening set	-4960 Nov 18 j 22:05	6° $\text{♁}$ 43'19		min. Earth dist.	-4954 Aug 24 j 22:08	23° $\text{♄}$ 49'19	7.88858 AU
				direct	-4954 Oct 29 j 21:50	20° $\text{♄}$ 20'46	
conjunction	-4960 Dec 05 j 18:20	8° $\text{♁}$ 47'18	0°34'47	evening set	-4953 Feb 10 j 00:03	28° $\text{♄}$ 40'01	
minimum elong	-4960 Dec 05 j 18:21	8° $\text{♁}$ 47'19	0°34'37		-4953 Feb 20 j 02:11	0° $\text{♁}$	
max. Earth dist.	-4960 Dec 05 j 03:59	8° $\text{♁}$ 42'52	10.61065 AU				
morning rise	-4960 Dec 22 j 18:37	10° $\text{♁}$ 52'39		conjunction	-4953 Feb 27 j 20:32	1° $\text{♁}$ 02'11	-2°-13'-10
	-4959 Jan 28 j 22:12	15° $\text{♁}$		minimum elong	-4953 Feb 27 j 20:30	1° $\text{♁}$ 02'10	2°13'25
retrograde	-4959 Apr 07 j 03:04	18° $\text{♁}$ 35'33		max. Earth dist.	-4953 Feb 28 j 06:57	1° $\text{♁}$ 05'39	9.85924 AU
opposition	-4959 Jun 16 j 12:51	15° $\text{♁}$ 10'09	0°23'19	morning rise	-4953 Mar 17 j 20:49	3° $\text{♁}$ 25'35	
min. Earth dist.	-4959 Jun 16 j 23:43	15° $\text{♁}$ 08'03	8.53085 AU	retrograde	-4953 Jul 03 j 20:33	12° $\text{♁}$ 07'07	
	-4959 Jun 18 j 17:30	15° $\text{♁}$		opposition	-4953 Sep 09 j 00:08	8° $\text{♁}$ 35'15	-2°-54'-21
direct	-4959 Aug 23 j 18:54	11° $\text{♁}$ 49'03		min. Earth dist.	-4953 Sep 08 j 14:26	8° $\text{♁}$ 37'17	7.84336 AU
	-4959 Oct 24 j 09:51	15° $\text{♁}$		direct	-4953 Nov 13 j 16:23	5° $\text{♁}$ 06'52	
evening set	-4959 Dec 01 j 12:22	19° $\text{♁}$ 15'16		evening set	-4952 Feb 25 j 16:33	13° $\text{♁}$ 32'23	
					-4952 Mar 07 j 17:12	15° $\text{♁}$	
conjunction	-4959 Dec 18 j 12:45	21° $\text{♁}$ 22'38	0°03'19				
minimum elong	-4959 Dec 18 j 12:45	21° $\text{♁}$ 22'38	0°03'08	conjunction	-4952 Mar 14 j 15:58	15° $\text{♁}$ 55'44	-2°-22'-11
behind sun begin	-4959 Dec 18 j 05:41	21° $\text{♁}$ 20'26		minimum elong	-4952 Mar 14 j 15:58	15° $\text{♁}$ 55'44	2°22'23
behind sun end	-4959 Dec 18 j 19:50	21° $\text{♁}$ 24'50		max. Earth dist.	-4952 Mar 15 j 06:54	16° $\text{♁}$ 00'44	9.83348 AU
max. Earth dist.	-4959 Dec 18 j 00:40	21° $\text{♁}$ 18'51	10.45274 AU	morning rise	-4952 Apr 01 j 18:02	18° $\text{♁}$ 19'56	
morning rise	-4958 Jan 04 j 17:53	23° $\text{♁}$ 31'35		retrograde	-4952 Jul 18 j 03:24	27° $\text{♁}$ 00'09	
desc. node	-4958 Jan 25 j 14:12	25° $\text{♁}$ 59'40		opposition	-4952 Sep 22 j 20:38	23° $\text{♁}$ 28'34	-2°-59'-43
	-4958 Mar 10 j 00:23	0° $\text{♁}$		min. Earth dist.	-4952 Sep 22 j 08:04	23° $\text{♁}$ 31'13	7.83824 AU
retrograde	-4958 Apr 21 j 01:53	1° $\text{♁}$ 27'24		direct	-4952 Nov 27 j 16:16	19° $\text{♁}$ 59'18	
	-4958 Jun 02 j 18:34	30° $\text{♁}$		evening set	-4951 Mar 12 j 12:21	28° $\text{♁}$ 27'40	
opposition	-4958 Jun 29 j 23:48	28° $\text{♁}$ 00'16	0°-16'-39		-4951 Mar 24 j 04:02	0° $\text{♁}$	
min. Earth dist.	-4958 Jun 30 j 07:57	27° $\text{♁}$ 58'40	8.37280 AU				
direct	-4958 Sep 05 j 12:15	24° $\text{♁}$ 38'01		conjunction	-4951 Mar 30 j 14:06	0° $\text{♁}$ 51'19	-2°-21'-44
	-4958 Nov 26 j 00:59	0° $\text{♁}$		minimum elong	-4951 Mar 30 j 14:08	0° $\text{♁}$ 51'19	2°21'53
evening set	-4958 Dec 14 j 15:55	2° $\text{♁}$ 14'47		max. Earth dist.	-4951 Mar 31 j 08:09	0° $\text{♁}$ 57'20	9.84847 AU
				morning rise	-4951 Apr 17 j 17:13	3° $\text{♁}$ 15'22	
conjunction	-4958 Dec 31 j 20:35	4° $\text{♁}$ 25'38	0°-29'-25	retrograde	-4951 Aug 02 j 04:18	11° $\text{♁}$ 49'47	
minimum elong	-4958 Dec 31 j 20:33	4° $\text{♁}$ 25'38	0°29'40	opposition	-4951 Oct 07 j 14:48	8° $\text{♁}$ 18'58	-2°-53'00
max. Earth dist.	-4958 Dec 31 j 11:13	4° $\text{♁}$ 22'39	10.29664 AU	min. Earth dist.	-4951 Oct 07 j 00:49	8° $\text{♁}$ 21'54	7.87263 AU
morning rise	-4957 Jan 18 j 06:34	6° $\text{♁}$ 38'14		direct	-4951 Dec 12 j 18:20	4° $\text{♁}$ 49'05	
retrograde	-4957 May 05 j 09:47	14° $\text{♁}$ 46'59		evening set	-4950 Mar 28 j 07:02	13° $\text{♁}$ 16'44	
opposition	-4957 Jul 13 j 19:37	11° $\text{♁}$ 18'16	0°-57'-18				
min. Earth dist.	-4957 Jul 14 j 00:53	11° $\text{♁}$ 17'13	8.22099 AU	conjunction	-4950 Apr 15 j 10:15	15° $\text{♁}$ 39'46	-2°-11'-56
direct	-4957 Sep 18 j 17:37	7° $\text{♁}$ 54'46		minimum elong	-4950 Apr 15 j 10:18	15° $\text{♁}$ 39'47	2°12'01
evening set	-4957 Dec 28 j 09:32	15° $\text{♁}$ 42'52		max. Earth dist.	-4950 Apr 16 j 05:27	15° $\text{♁}$ 46'07	9.90178 AU
				morning rise	-4950 May 03 j 13:28	18° $\text{♁}$ 02'45	
conjunction	-4956 Jan 14 j 18:28	17° $\text{♁}$ 57'09	-1°-1'-30	retrograde	-4950 Aug 16 j 20:58	26° $\text{♁}$ 27'43	
minimum elong	-4956 Jan 14 j 18:25	17° $\text{♁}$ 57'08	1°01'47	opposition	-4950 Oct 22 j 04:08	22° $\text{♁}$ 58'07	-2°-35'-2
max. Earth dist.	-4956 Jan 14 j 13:00	17° $\text{♁}$ 55'22	10.15071 AU	min. Earth dist.	-4950 Oct 21 j 14:04	23° $\text{♁}$ 01'04	7.94275 AU
morning rise	-4956 Feb 01 j 08:58	20° $\text{♁}$ 13'13		direct	-4950 Dec 27 j 19:19	19° $\text{♁}$ 28'00	
retrograde	-4956 May 19 j 02:58	28° $\text{♁}$ 34'07		evening set	-4949 Apr 12 j 20:23	27° $\text{♁}$ 51'42	
opposition	-4956 Jul 26 j 23:49	25° $\text{♁}$ 04'03	-1°-36'-10		-4949 Apr 29 j 07:19	0° $\text{♁}$	
min. Earth dist.	-4956 Jul 27 j 01:48	25° $\text{♁}$ 03'39	8.08410 AU				
direct	-4956 Oct 01 j 09:42	21° $\text{♁}$ 39'15		conjunction	-4949 May 01 j 00:03	0° $\text{♁}$ 13'20	-1°-53'-48
evening set	-4955 Jan 10 j 17:38	29° $\text{♁}$ 38'48		minimum elong	-4949 May 01 j 00:07	0° $\text{♁}$ 13'21	1°53'49
	-4955 Jan 13 j 11:21	0° $\text{♁}$		max. Earth dist.	-4949 May 01 j 18:58	0° $\text{♁}$ 19'31	9.98868 AU

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 38

Attention, astronomical year style is used: The year -4949 in astronomical counting style is the year 4950 BCE in historical counting style.

morning rise	-4949 May 19 j 02:25	2°Υ34'26		conjunction	-4943 Jul 20 j 20:33	18°Π49'49	1°03'48
retrograde	-4949 Aug 31 j 03:47	10°Υ47'28		minimum elong	-4943 Jul 20 j 20:30	18°Π49'48	1°04'03
opposition	-4949 Nov 05 j 10:58	7°Υ19'25	-2°-7'-38	max. Earth dist.	-4943 Jul 21 j 00:46	18°Π51'05	10.84350 AU
min. Earth dist.	-4949 Nov 04 j 21:12	7°Υ22'16	8.04369 AU	morning rise	-4943 Aug 06 j 22:53	20°Π51'29	
direct	-4948 Jan 11 j 16:34	3°Υ49'26		retrograde	-4943 Nov 13 j 12:21	27°Π52'10	
evening set	-4948 Apr 27 j 01:05	12°Υ06'27		opposition	-4942 Jan 20 j 21:55	24°Π34'09	1°33'47
				min. Earth dist.	-4942 Jan 20 j 19:38	24°Π34'35	8.90986 AU
conjunction	-4948 May 15 j 04:05	14°Υ25'56	-1°-29'-2	direct	-4942 Apr 02 j 01:55	21°Π10'07	
minimum elong	-4948 May 15 j 04:09	14°Υ25'57	1°28'59	evening set	-4942 Jul 15 j 17:51	28°Π28'46	
max. Earth dist.	-4948 May 15 j 21:58	14°Υ31'42	10.10379 AU		-4942 Jul 28 j 18:02	0°☾	
morning rise	-4948 Jun 02 j 04:33	16°Υ44'29		conjunction	-4942 Aug 01 j 20:09	0°☾28'58	1°28'56
retrograde	-4948 Sep 12 j 23:31	24°Υ44'05		minimum elong	-4942 Aug 01 j 20:06	0°☾28'57	1°29'12
opposition	-4948 Nov 18 j 09:52	21°Υ17'46	-1°-33'-20	max. Earth dist.	-4942 Aug 01 j 20:41	0°☾29'07	10.97216 AU
min. Earth dist.	-4948 Nov 17 j 20:41	21°Υ20'28	8.16968 AU	morning rise	-4942 Aug 18 j 17:34	2°☾27'43	
direct	-4947 Jan 25 j 08:48	17°Υ48'18		retrograde	-4942 Nov 25 j 01:37	9°☾21'34	
evening set	-4947 May 11 j 19:05	25°Υ56'34		opposition	-4941 Feb 01 j 22:32	6°☾04'37	2°01'54
				min. Earth dist.	-4941 Feb 01 j 22:24	6°☾04'38	9.02970 AU
conjunction	-4947 May 29 j 20:08	28°Υ13'14	0°-59'-42	direct	-4941 Apr 14 j 11:29	2°☾41'51	
minimum elong	-4947 May 29 j 20:11	28°Υ13'15	0°59'36	evening set	-4941 Jul 27 j 13:21	9°☾52'48	
max. Earth dist.	-4947 May 30 j 12:17	28°Υ18'22	10.24042 AU				
	-4947 Jun 12 j 21:41	0°♄		conjunction	-4941 Aug 13 j 10:50	11°☾50'25	1°49'58
morning rise	-4947 Jun 16 j 17:32	0°♄28'40		minimum elong	-4941 Aug 13 j 10:47	11°☾50'24	1°50'14
retrograde	-4947 Sep 26 j 06:51	8°♄14'23		max. Earth dist.	-4941 Aug 13 j 08:48	11°☾49'50	11.08084 AU
min. Earth dist.	-4947 Dec 01 j 11:36	4°♄52'26	8.31353 AU	morning rise	-4941 Aug 30 j 03:40	13°☾46'44	
opposition	-4947 Dec 02 j 00:02	4°♄49'55	0°-54'-55	retrograde	-4941 Dec 06 j 11:21	20°☾35'39	
direct	-4946 Feb 08 j 17:10	1°♄21'14		opposition	-4940 Feb 13 j 18:36	17°☾19'31	2°24'39
evening set	-4946 May 26 j 00:40	9°♄19'27		min. Earth dist.	-4940 Feb 13 j 21:12	17°☾19'02	9.12760 AU
				direct	-4940 Apr 25 j 14:06	13°☾57'56	
conjunction	-4946 Jun 12 j 22:36	11°♄32'54	0°-27'-59	evening set	-4940 Aug 07 j 01:09	21°☾02'33	
minimum elong	-4946 Jun 12 j 22:38	11°♄32'54	0°27'50				
max. Earth dist.	-4946 Jun 13 j 12:51	11°♄37'21	10.39071 AU	conjunction	-4940 Aug 23 j 18:14	22°☾58'04	2°06'25
morning rise	-4946 Jun 30 j 15:55	13°♄44'52		minimum elong	-4940 Aug 23 j 18:12	22°☾58'03	2°06'41
	-4946 Jul 11 j 01:48	15°♄		max. Earth dist.	-4940 Aug 23 j 13:12	22°☾56'36	11.16586 AU
retrograde	-4946 Oct 09 j 04:15	21°♄17'14		morning rise	-4940 Sep 09 j 07:12	24°☾52'28	
opposition	-4946 Dec 15 j 05:32	17°♄54'35	0°-14'-59		-4940 Nov 01 j 15:12	0°♄	
min. Earth dist.	-4946 Dec 14 j 18:36	17°♄56'45	8.46720 AU	retrograde	-4940 Dec 16 j 18:15	1°♄38'21	
	-4945 Jan 28 j 01:05	15°♄			-4939 Feb 01 j 09:46	30°♄	
direct	-4945 Feb 22 j 15:38	14°♄26'54		opposition	-4939 Feb 24 j 11:48	28°☾22'45	2°41'37
	-4945 Mar 20 j 04:21	15°♄		min. Earth dist.	-4939 Feb 24 j 17:50	28°☾21'38	9.20031 AU
asc. node	-4945 May 07 j 06:56	18°♄35'58		direct	-4939 May 07 j 09:26	25°☾02'16	
evening set	-4945 Jun 08 j 17:07	22°♄14'32			-4939 Jul 30 j 15:24	0°♄	
				evening set	-4939 Aug 18 j 06:43	2°♄01'53	
conjunction	-4945 Jun 26 j 10:57	24°♄24'32	0°04'17				
minimum elong	-4945 Jun 26 j 10:56	24°♄24'32	0°04'29	conjunction	-4939 Sep 03 j 20:00	3°♄55'50	2°17'59
behind sun begin	-4945 Jun 26 j 03:52	24°♄22'23		minimum elong	-4939 Sep 03 j 19:59	3°♄55'49	2°18'13
behind sun end	-4945 Jun 26 j 18:00	24°♄26'41		max. Earth dist.	-4939 Sep 03 j 11:09	3°♄53'16	11.22457 AU
max. Earth dist.	-4945 Jun 26 j 22:59	24°♄28'13	10.54640 AU	morning rise	-4939 Sep 20 j 06:09	5°♄48'55	
morning rise	-4945 Jul 13 j 23:29	26°♄32'56		retrograde	-4939 Dec 27 j 22:48	12°♄33'39	
	-4945 Aug 13 j 16:20	0°♄		opposition	-4938 Mar 08 j 03:16	9°♄18'16	2°52'31
retrograde	-4945 Oct 21 j 16:40	3°♄53'05		min. Earth dist.	-4938 Mar 08 j 11:52	9°♄16'42	9.24558 AU
opposition	-4945 Dec 28 j 02:30	0°♄32'09	0°24'12	direct	-4938 May 19 j 01:07	5°♄58'44	
min. Earth dist.	-4945 Dec 27 j 18:14	0°♄33'46	8.62264 AU	evening set	-4938 Aug 29 j 07:51	12°♄54'46	
	-4944 Jan 03 j 23:34	30°♄					
direct	-4944 Mar 07 j 03:09	27°♄05'38		conjunction	-4938 Sep 14 j 18:23	14°♄47'44	2°24'26
	-4944 May 07 j 09:36	0°♄		minimum elong	-4938 Sep 14 j 18:22	14°♄47'44	2°24'38
evening set	-4944 Jun 20 j 21:01	4°♄42'51		max. Earth dist.	-4938 Sep 14 j 07:05	14°♄44'28	11.25523 AU
					-4938 Sep 16 j 12:56	15°♄	
conjunction	-4944 Jul 08 j 09:56	6°♄49'23	0°35'15	morning rise	-4938 Oct 01 j 02:36	16°♄40'03	
minimum elong	-4944 Jul 08 j 09:54	6°♄49'23	0°35'29	retrograde	-4937 Jan 08 j 06:45	23°♄25'27	
max. Earth dist.	-4944 Jul 08 j 18:27	6°♄51'58	10.69964 AU	opposition	-4937 Mar 19 j 18:04	20°♄09'59	2°57'12
morning rise	-4944 Jul 25 j 17:21	8°♄54'18		min. Earth dist.	-4937 Mar 20 j 04:16	20°♄08'07	9.26194 AU
retrograde	-4944 Nov 01 j 17:54	16°♄03'46		direct	-4937 May 30 j 14:53	16°♄51'14	
opposition	-4943 Jan 08 j 15:34	12°♄44'26	1°00'54	evening set	-4937 Sep 09 j 06:11	23°♄45'05	
min. Earth dist.	-4943 Jan 08 j 10:32	12°♄45'24	8.77235 AU				
direct	-4943 Mar 20 j 06:53	9°♄19'08		conjunction	-4937 Sep 25 j 15:05	25°♄37'40	2°25'42
evening set	-4943 Jul 03 j 12:59	16°♄46'37		minimum elong	-4937 Sep 25 j 15:06	25°♄37'40	2°25'51



## Planetary Phenomena of Saturn from -5400 through -4900 (UT), AstroDienst AG 7-Dez-2017 14:33, page 39

Attention, astronomical year style is used: The year -4937 in astronomical counting style is the year 4938 BCE in historical counting style.

max. Earth dist.	-4937 Sep 25 j 02:30	25°♄34'02	11.25677 AU	max. Earth dist.	-4931 Nov 29 j 21:10	3°♍24'01	10.71082 AU
morning rise	-4937 Oct 11 j 22:16	27°♄29'51		morning rise	-4931 Dec 17 j 11:33	5°♍32'25	
	-4937 Nov 04 j 04:02	0°♍		retrograde	-4930 Apr 01 j 08:47	13°♍08'09	
retrograde	-4936 Jan 19 j 15:58	4°♍17'38		opposition	-4930 Jun 10 j 22:40	9°♍44'20	0°40'34
opposition	-4936 Mar 30 j 09:51	1°♍01'45	2°55'36	min. Earth dist.	-4930 Jun 11 j 11:35	9°♍41'52	8.63266 AU
min. Earth dist.	-4936 Mar 30 j 21:32	0°♍59'38	9.24872 AU	direct	-4930 Aug 18 j 11:36	6°♍24'21	
	-4936 Apr 13 j 19:32	30°♍		evening set	-4930 Nov 26 j 03:20	13°♍44'51	
direct	-4936 Jun 10 j 00:29	27°♄43'36			-4930 Dec 06 j 07:50	15°♍	
	-4936 Aug 03 j 16:42	0°♍		max. Earth dist.	-4930 Dec 12 j 11:08	15°♍45'47	10.55457 AU
evening set	-4936 Sep 19 j 03:43	4°♍36'43					
				conjunction	-4930 Dec 13 j 01:30	15°♍50'14	0°17'47
conjunction	-4936 Oct 05 j 11:48	6°♍29'30	2°21'42	minimum elong	-4930 Dec 13 j 01:30	15°♍50'14	0°17'36
minimum elong	-4936 Oct 05 j 11:49	6°♍29'31	2°21'50	morning rise	-4930 Dec 30 j 04:17	17°♍57'08	
max. Earth dist.	-4936 Oct 04 j 21:11	6°♍25'16	11.22906 AU	retrograde	-4929 Apr 15 j 00:03	25°♍45'27	
morning rise	-4936 Oct 21 j 19:06	8°♍22'09		opposition	-4929 Jun 24 j 04:39	22°♍19'49	0°01'43
retrograde	-4935 Jan 30 j 06:01	15°♍14'01		min. Earth dist.	-4929 Jun 24 j 15:35	22°♍17'42	8.47317 AU
opposition	-4935 Apr 11 j 03:53	11°♍57'28	2°47'42	desc. node	-4929 Jul 10 j 07:07	21°♍06'33	
min. Earth dist.	-4935 Apr 11 j 17:35	11°♍54'59	9.20639 AU	direct	-4929 Aug 31 j 01:52	18°♍58'41	
direct	-4935 Jun 21 j 10:47	8°♍39'39		evening set	-4929 Dec 08 j 23:38	26°♍29'09	
evening set	-4935 Sep 30 j 02:15	15°♍33'29					
				conjunction	-4929 Dec 26 j 02:11	28°♍38'00	0°-14'-29
conjunction	-4935 Oct 16 j 10:28	17°♍27'04	2°12'31	minimum elong	-4929 Dec 26 j 02:10	28°♍38'00	0°14'43
minimum elong	-4935 Oct 16 j 10:30	17°♍27'05	2°12'36	behind sun begin	-4929 Dec 25 j 23:10	28°♍37'04	
max. Earth dist.	-4935 Oct 15 j 17:56	17°♍22'15	11.17307 AU	behind sun end	-4929 Dec 26 j 05:09	28°♍38'56	
morning rise	-4935 Nov 01 j 19:06	19°♍20'49		max. Earth dist.	-4929 Dec 25 j 15:04	28°♍34'30	10.39434 AU
retrograde	-4934 Feb 10 j 22:45	26°♍18'24			-4928 Jan 05 j 22:03	0°♌	
opposition	-4934 Apr 23 j 01:17	23°♍00'52	2°33'33	morning rise	-4928 Jan 12 j 09:40	0°♌48'30	
min. Earth dist.	-4934 Apr 23 j 16:12	22°♍58'08	9.13635 AU	retrograde	-4928 Apr 28 j 02:05	8°♌49'53	
direct	-4934 Jul 02 j 21:31	19°♍43'07		opposition	-4928 Jul 06 j 19:31	5°♌22'26	0°-38'-44
evening set	-4934 Oct 11 j 03:25	26°♍39'11		min. Earth dist.	-4928 Jul 07 j 03:05	5°♌20'56	8.31439 AU
				direct	-4928 Sep 12 j 01:59	2°♌00'00	
conjunction	-4934 Oct 27 j 12:58	28°♍34'08	1°58'15	evening set	-4928 Dec 21 j 09:33	9°♌41'25	
minimum elong	-4934 Oct 27 j 13:01	28°♍34'09	1°58'16				
max. Earth dist.	-4934 Oct 26 j 20:13	28°♍29'12	11.09043 AU	conjunction	-4927 Jan 07 j 16:28	11°♌53'47	0°-46'-58
	-4934 Nov 08 j 17:47	0°♌		minimum elong	-4927 Jan 07 j 16:26	11°♌53'46	0°47'13
morning rise	-4934 Nov 12 j 23:46	0°♌29'31		max. Earth dist.	-4927 Jan 07 j 09:10	11°♌51'26	10.23894 AU
retrograde	-4933 Feb 23 j 00:18	7°♌34'29		morning rise	-4927 Jan 25 j 04:34	14°♌07'52	
opposition	-4933 May 05 j 03:06	4°♌15'39	2°13'21	retrograde	-4927 May 12 j 14:56	22°♌21'57	
min. Earth dist.	-4933 May 05 j 17:48	4°♌12'57	9.04058 AU	opposition	-4927 Jul 20 j 18:55	18°♌52'48	-1°-18'-36
direct	-4933 Jul 14 j 13:01	0°♌57'45		min. Earth dist.	-4927 Jul 20 j 22:44	18°♌52'02	8.16533 AU
evening set	-4933 Oct 22 j 09:23	7°♌57'33		direct	-4927 Sep 25 j 11:18	15°♌28'55	
				evening set	-4926 Jan 04 j 10:00	23°♌21'50	
conjunction	-4933 Nov 07 j 21:09	9°♌54'25	1°39'08				
minimum elong	-4933 Nov 07 j 21:12	9°♌54'26	1°39'06	conjunction	-4926 Jan 21 j 21:06	25°♌37'31	-1°-17'-48
max. Earth dist.	-4933 Nov 07 j 04:52	9°♌49'34	10.98345 AU	minimum elong	-4926 Jan 21 j 21:03	25°♌37'30	1°18'05
morning rise	-4933 Nov 24 j 10:53	11°♌52'00		max. Earth dist.	-4926 Jan 21 j 17:39	25°♌36'24	10.09746 AU
retrograde	-4932 Mar 06 j 10:50	19°♌05'49		morning rise	-4926 Feb 08 j 13:29	27°♌54'59	
opposition	-4932 May 16 j 10:30	15°♌45'30	1°47'23		-4926 Feb 25 j 08:14	0°♌	
min. Earth dist.	-4932 May 17 j 00:32	15°♌42'53	8.92199 AU	retrograde	-4926 May 27 j 12:52	6°♌20'20	
direct	-4932 Jul 25 j 06:22	12°♌27'11		opposition	-4926 Aug 04 j 01:58	2°♌49'48	-1°-55'-17
evening set	-4932 Nov 01 j 22:07	19°♌32'14		min. Earth dist.	-4926 Aug 04 j 02:12	2°♌49'46	8.03490 AU
					-4926 Sep 14 j 00:45	30°♌	
conjunction	-4932 Nov 18 j 12:42	21°♌31'32	1°15'35	direct	-4926 Oct 09 j 06:23	29°♌24'23	
minimum elong	-4932 Nov 18 j 12:45	21°♌31'32	1°15'29		-4926 Nov 03 j 07:04	0°♌	
max. Earth dist.	-4932 Nov 17 j 20:15	21°♌26'34	10.85555 AU	evening set	-4925 Jan 19 j 00:25	7°♌28'36	
morning rise	-4932 Dec 05 j 06:17	23°♌31'49					
	-4931 Feb 13 j 04:07	0°♌		conjunction	-4925 Feb 05 j 15:26	9°♌47'15	-1°-44'-52
retrograde	-4931 Mar 19 j 04:25	0°♌55'56		minimum elong	-4925 Feb 05 j 15:22	9°♌47'14	1°45'08
	-4931 Apr 22 j 17:56	30°♌		max. Earth dist.	-4925 Feb 05 j 16:08	9°♌47'29	9.97871 AU
opposition	-4931 May 29 j 00:47	27°♌33'55	1°16'11	morning rise	-4925 Feb 23 j 11:32	12°♌07'35	
min. Earth dist.	-4931 May 29 j 14:22	27°♌31'21	8.78446 AU	retrograde	-4925 Jun 11 j 17:02	20°♌41'51	
direct	-4931 Aug 06 j 04:46	24°♌14'53		opposition	-4925 Aug 18 j 15:36	17°♌10'18	-2°-25'-56
	-4931 Nov 01 j 10:33	0°♌		min. Earth dist.	-4925 Aug 18 j 12:34	17°♌10'56	7.93143 AU
evening set	-4931 Nov 13 j 19:23	1°♌26'51		direct	-4925 Oct 23 j 11:54	13°♌43'23	
				evening set	-4924 Feb 03 j 02:58	21°♌57'43	
conjunction	-4931 Nov 30 j 13:27	3°♌29'00	0°48'11				
minimum elong	-4931 Nov 30 j 13:29	3°♌29'01	0°48'02	conjunction	-4924 Feb 20 j 21:36	24°♌18'47	-2°-5'-57

Attention, astronomical year style is used: The year -4924 in astronomical counting style is the year 4925 BCE in historical counting style.

minimum elong	-4924 Feb 20 j 21:33	24°☾18'46	2°06'12	min. Earth dist.	-4919 Nov 11 j 15:05	14°☿59'39	8.09241 AU
max. Earth dist.	-4924 Feb 21 j 03:03	24°☾20'36	9.89063 AU	direct	-4918 Jan 18 j 20:05	11°☿26'22	
morning rise	-4924 Mar 09 j 20:44	26°☾41'19		evening set	-4918 May 05 j 05:45	19°☿39'25	
	-4924 Apr 05 j 13:19	0°≈					
retrograde	-4924 Jun 26 j 00:24	5°≈21'05		conjunction	-4918 May 23 j 08:05	21°☿57'40	-1°-14'-12
opposition	-4924 Sep 01 j 09:40	1°≈48'57	-2°-47'-49	minimum elong	-4918 May 23 j 08:08	21°☿57'41	1°14'08
min. Earth dist.	-4924 Sep 01 j 03:25	1°≈50'15	7.86188 AU	max. Earth dist.	-4918 May 24 j 03:00	22°☿03'44	10.15964 AU
	-4924 Sep 24 j 07:28	30°☿☾		morning rise	-4918 Jun 10 j 07:01	24°☿14'48	
direct	-4924 Nov 06 j 03:04	28°☾20'41			-4918 Aug 02 j 11:41	0°☿	
	-4924 Dec 18 j 04:03	0°≈		retrograde	-4918 Sep 20 j 10:38	2°☿07'35	
evening set	-4923 Feb 17 j 15:17	6°≈42'59			-4918 Nov 09 j 13:54	30°☿☿	
				min. Earth dist.	-4918 Nov 25 j 10:54	28°☿44'29	8.23097 AU
conjunction	-4923 Mar 07 j 13:11	9°≈05'46	-2°-19'-10	opposition	-4918 Nov 26 j 00:15	28°☿41'45	-1°-13'-41
minimum elong	-4923 Mar 07 j 13:09	9°≈05'45	2°19'23	direct	-4917 Feb 02 j 08:04	25°☿12'14	
max. Earth dist.	-4923 Mar 07 j 23:15	9°≈09'08	9.83939 AU		-4917 Apr 21 j 19:49	0°☿	
morning rise	-4923 Mar 25 j 14:37	11°≈29'39		evening set	-4917 May 19 j 17:24	3°☿15'43	
	-4923 Apr 22 j 20:29	15°≈					
retrograde	-4923 Jul 11 j 06:49	20°≈10'40		conjunction	-4917 Jun 06 j 17:02	5°☿30'53	0°-43'-20
opposition	-4923 Sep 16 j 05:34	16°≈38'28	-2°-58'-50	minimum elong	-4917 Jun 06 j 17:04	5°☿30'53	0°43'13
min. Earth dist.	-4923 Sep 15 j 20:22	16°≈40'24	7.83104 AU	max. Earth dist.	-4917 Jun 07 j 09:36	5°☿36'05	10.30705 AU
	-4923 Oct 06 j 13:50	15°☿≈		morning rise	-4917 Jun 24 j 12:27	7°☿44'40	
direct	-4923 Nov 21 j 00:39	13°≈09'04			-4917 Sep 12 j 19:43	15°☿	
	-4922 Jan 04 j 15:09	15°≈		retrograde	-4917 Oct 03 j 12:49	15°☿23'41	
evening set	-4922 Mar 05 j 09:24	21°≈36'21			-4917 Oct 24 j 08:50	15°☿☿	
				opposition	-4917 Dec 09 j 09:55	11°☿59'52	0°-34'-7
conjunction	-4922 Mar 23 j 10:03	23°≈59'59	-2°-23'-16	min. Earth dist.	-4917 Dec 08 j 22:21	12°☿02'11	8.38393 AU
minimum elong	-4922 Mar 23 j 10:04	23°≈59'59	2°23'26	direct	-4916 Feb 16 j 11:02	8°☿31'24	
max. Earth dist.	-4922 Mar 24 j 00:10	24°≈04'42	9.82861 AU		-4916 May 20 j 20:34	15°☿	
morning rise	-4922 Apr 10 j 12:57	26°≈24'17		evening set	-4916 Jun 01 j 16:19	16°☿24'29	
	-4922 May 09 j 14:00	0°☿					
retrograde	-4922 Jul 26 j 09:42	5°☿02'04		conjunction	-4916 Jun 19 j 12:12	18°☿36'15	0°-11'-7
opposition	-4922 Oct 01 j 00:49	1°☿30'20	-2°-57'-53	minimum elong	-4916 Jun 19 j 12:12	18°☿36'15	0°10'57
min. Earth dist.	-4922 Sep 30 j 12:57	1°☿32'49	7.84091 AU	behind sun begin	-4916 Jun 19 j 06:47	18°☿34'36	
	-4922 Oct 19 j 12:28	30°☿≈		behind sun end	-4916 Jun 19 j 17:37	18°☿37'55	
direct	-4922 Dec 06 j 01:24	28°≈00'07		max. Earth dist.	-4916 Jun 20 j 01:27	18°☿40'21	10.46429 AU
	-4921 Jan 21 j 18:34	0°☿		morning rise	-4916 Jul 07 j 03:19	20°☿46'30	
evening set	-4921 Mar 21 j 04:41	6°☿28'47		retrograde	-4916 Oct 15 j 05:02	28°☿12'39	
				asc. node	-4916 Oct 27 j 17:50	28°☿04'07	
conjunction	-4921 Apr 08 j 07:22	8°☿52'22	-2°-17'-51	opposition	-4916 Dec 21 j 10:57	24°☿50'47	0°05'44
minimum elong	-4921 Apr 08 j 07:25	8°☿52'22	2°17'58	min. Earth dist.	-4916 Dec 21 j 01:02	24°☿52'45	8.54275 AU
max. Earth dist.	-4921 Apr 09 j 00:46	8°☿58'09	9.85892 AU	direct	-4915 Mar 01 j 04:31	21°☿23'38	
morning rise	-4921 Apr 26 j 10:48	11°☿16'07		evening set	-4915 Jun 15 j 02:31	29°☿06'10	
retrograde	-4921 Aug 10 j 06:38	19°☿46'31			-4915 Jun 22 j 13:24	0°☿	
opposition	-4921 Oct 15 j 16:41	16°☿15'41	-2°-45'-7				
min. Earth dist.	-4921 Oct 15 j 02:39	16°☿18'38	7.89060 AU	conjunction	-4915 Jul 02 j 17:49	1°☿14'26	0°20'44
direct	-4921 Dec 21 j 02:42	12°☿45'04		minimum elong	-4915 Jul 02 j 17:48	1°☿14'26	0°20'57
evening set	-4920 Apr 04 j 20:56	21°☿11'29		max. Earth dist.	-4915 Jul 03 j 04:04	1°☿17'34	10.62298 AU
				morning rise	-4915 Jul 20 j 03:56	3°☿21'06	
conjunction	-4920 Apr 23 j 00:44	23°☿34'06	-2°-3'-30	retrograde	-4915 Oct 27 j 11:17	10°☿35'49	
minimum elong	-4920 Apr 23 j 00:48	23°☿34'07	2°03'33	opposition	-4914 Jan 03 j 03:57	7°☿15'48	0°43'52
max. Earth dist.	-4920 Apr 23 j 20:14	23°☿40'31	9.92796 AU	min. Earth dist.	-4914 Jan 02 j 20:01	7°☿17'21	8.69943 AU
morning rise	-4920 May 11 j 03:45	25°☿56'24		direct	-4914 Mar 14 j 13:06	3°☿50'03	
	-4920 Jun 13 j 22:41	0°☿		evening set	-4914 Jun 28 j 00:25	11°☿22'28	
retrograde	-4920 Aug 23 j 19:05	4°☿16'02					
min. Earth dist.	-4920 Oct 28 j 11:52	0°☿49'40	7.97646 AU	conjunction	-4914 Jul 15 j 10:41	13°☿27'18	0°50'38
opposition	-4920 Oct 29 j 02:48	0°☿46'33	-2°-21'-54	minimum elong	-4914 Jul 15 j 10:38	13°☿27'18	0°50'53
	-4920 Nov 07 j 11:58	30°☿☿		max. Earth dist.	-4914 Jul 15 j 18:10	13°☿29'33	10.77558 AU
direct	-4919 Jan 04 j 01:23	27°☿15'54		morning rise	-4914 Aug 01 j 15:29	15°☿30'32	
	-4919 Mar 01 j 08:48	0°☿		retrograde	-4914 Nov 08 j 11:22	22°☿35'34	
evening set	-4919 Apr 20 j 06:17	5°☿36'53		opposition	-4913 Jan 15 j 13:51	19°☿17'10	1°18'45
				min. Earth dist.	-4913 Jan 15 j 08:42	19°☿18'09	8.84692 AU
conjunction	-4919 May 08 j 10:03	7°☿57'41	-1°-41'-38	direct	-4913 Mar 27 j 11:19	15°☿52'52	
minimum elong	-4919 May 08 j 10:07	7°☿57'43	1°41'38	evening set	-4913 Jul 10 j 10:56	23°☿15'54	
max. Earth dist.	-4919 May 09 j 06:00	8°☿04'11	10.03058 AU				
morning rise	-4919 May 26 j 11:35	10°☿17'44		conjunction	-4913 Jul 27 j 15:54	25°☿17'33	1°17'32
retrograde	-4919 Sep 06 j 21:20	18°☿24'24		minimum elong	-4913 Jul 27 j 15:51	25°☿17'32	1°17'47
opposition	-4919 Nov 12 j 05:42	14°☿56'38	-1°-50'-32	max. Earth dist.	-4913 Jul 27 j 20:05	25°☿18'48	10.91548 AU

# Planetary Phenomena of Saturn from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 41

Attention, astronomical year style is used: The year -4913 in astronomical counting style is the year 4914 BCE in historical counting style.

morning rise	-4913 Aug 13 j 15:33	27° <u>II</u> 17'40		max. Earth dist.	-4907 Sep 30 j 06:48	1° <u>mp</u> 40'41	11.24225 AU
	-4913 Sep 07 j 04:21	0° <u>sc</u>		morning rise	-4907 Oct 17 j 05:34	3° <u>mp</u> 37'37	
retrograde	-4913 Nov 20 j 03:49	4° <u>sc</u> 14'51		retrograde	-4906 Jan 25 j 07:53	10° <u>mp</u> 27'41	
opposition	-4912 Jan 27 j 17:34	0° <u>sc</u> 57'48	1°49'15	opposition	-4906 Apr 06 j 04:07	7° <u>mp</u> 11'29	2°52'03
min. Earth dist.	-4912 Jan 27 j 16:09	0° <u>sc</u> 58'04	8.97894 AU	min. Earth dist.	-4906 Apr 06 j 17:57	7° <u>mp</u> 08'58	9.22427 AU
	-4912 Feb 09 j 16:55	30° <u>R</u> <u>II</u>		direct	-4906 Jun 16 j 15:57	3° <u>mp</u> 53'27	
direct	-4912 Apr 08 j 00:16	27° <u>II</u> 34'52		evening set	-4906 Sep 25 j 12:10	10° <u>mp</u> 47'07	
	-4912 Jun 03 j 14:19	0° <u>sc</u>					
evening set	-4912 Jul 21 j 11:32	4° <u>sc</u> 49'37		conjunction	-4906 Oct 11 j 20:23	12° <u>mp</u> 40'22	2°17'19
				minimum elong	-4906 Oct 11 j 20:25	12° <u>mp</u> 40'22	2°17'26
conjunction	-4912 Aug 07 j 11:14	6° <u>sc</u> 48'25	1°40'36	max. Earth dist.	-4906 Oct 11 j 04:18	12° <u>mp</u> 35'41	11.19510 AU
minimum elong	-4912 Aug 07 j 11:11	6° <u>sc</u> 48'25	1°40'51	morning rise	-4906 Oct 28 j 04:15	14° <u>mp</u> 33'37	
max. Earth dist.	-4912 Aug 07 j 10:46	6° <u>sc</u> 48'17	11.03698 AU	retrograde	-4905 Feb 05 j 23:56	21° <u>mp</u> 28'39	
morning rise	-4912 Aug 24 j 06:11	8° <u>sc</u> 45'52		opposition	-4905 Apr 17 j 23:54	18° <u>mp</u> 11'24	2°40'48
retrograde	-4912 Nov 30 j 13:53	15° <u>sc</u> 37'06		min. Earth dist.	-4905 Apr 18 j 14:30	18° <u>mp</u> 08'44	9.16271 AU
opposition	-4911 Feb 07 j 16:10	12° <u>sc</u> 21'04	2°14'37	direct	-4905 Jun 28 j 01:58	14° <u>mp</u> 53'24	
min. Earth dist.	-4911 Feb 07 j 17:58	12° <u>sc</u> 20'44	9.09014 AU	evening set	-4905 Oct 06 j 12:09	21° <u>mp</u> 48'37	
direct	-4911 Apr 20 j 07:29	8° <u>sc</u> 59'23					
evening set	-4911 Aug 02 j 03:28	16° <u>sc</u> 07'06		conjunction	-4905 Oct 22 j 21:07	23° <u>mp</u> 42'59	2°05'23
				minimum elong	-4905 Oct 22 j 21:10	23° <u>mp</u> 43'00	2°05'26
conjunction	-4911 Aug 18 j 22:25	18° <u>sc</u> 03'32	1°59'16	max. Earth dist.	-4905 Oct 22 j 03:46	23° <u>mp</u> 37'54	11.12043 AU
minimum elong	-4911 Aug 18 j 22:23	18° <u>sc</u> 03'31	1°59'31	morning rise	-4905 Nov 08 j 06:46	25° <u>mp</u> 37'39	
max. Earth dist.	-4911 Aug 18 j 18:01	18° <u>sc</u> 02'15	11.13536 AU		-4905 Dec 20 j 23:00	0° <u>sc</u>	
morning rise	-4911 Sep 04 j 13:16	19° <u>sc</u> 58'46		retrograde	-4904 Feb 17 j 21:58	2° <u>sc</u> 39'19	
retrograde	-4911 Dec 11 j 22:35	26° <u>sc</u> 46'02			-4904 Apr 20 j 00:48	30° <u>R</u> <u>mp</u>	
opposition	-4910 Feb 19 j 11:07	23° <u>sc</u> 30'39	2°34'20	opposition	-4904 Apr 28 j 23:46	29° <u>mp</u> 20'45	2°23'23
min. Earth dist.	-4910 Feb 19 j 15:24	23° <u>sc</u> 29'52	9.17602 AU	min. Earth dist.	-4904 Apr 29 j 15:20	29° <u>mp</u> 17'54	9.07458 AU
direct	-4910 May 02 j 07:47	20° <u>sc</u> 10'07		direct	-4904 Jul 08 j 15:01	26° <u>mp</u> 02'31	
evening set	-4910 Aug 13 j 12:08	27° <u>sc</u> 12'06			-4904 Sep 18 j 23:12	0° <u>sc</u>	
				evening set	-4904 Oct 16 j 15:46	3° <u>sc</u> 00'49	
conjunction	-4910 Aug 30 j 03:11	29° <u>sc</u> 06'43	2°13'08	max. Earth dist.	-4904 Nov 01 j 08:00	4° <u>sc</u> 51'25	11.02077 AU
minimum elong	-4910 Aug 30 j 03:09	29° <u>sc</u> 06'43	2°13'23				
max. Earth dist.	-4910 Aug 29 j 20:07	29° <u>sc</u> 04'41	11.20665 AU	conjunction	-4904 Nov 02 j 02:21	4° <u>sc</u> 56'52	1°48'28
	-4910 Sep 06 j 19:28	0° <u>sc</u>		minimum elong	-4904 Nov 02 j 02:24	4° <u>sc</u> 56'52	1°48'28
morning rise	-4910 Sep 15 j 14:33	1° <u>sc</u> 00'21		morning rise	-4904 Nov 18 j 14:46	6° <u>sc</u> 53'31	
retrograde	-4910 Dec 23 j 05:30	7° <u>sc</u> 04'53'35		retrograde	-4903 Mar 01 j 02:37	14° <u>sc</u> 03'25	
opposition	-4909 Mar 03 j 03:37	4° <u>sc</u> 030'32	2°48'05	opposition	-4903 May 11 j 04:47	10° <u>sc</u> 43'19	2°00'01
min. Earth dist.	-4909 Mar 03 j 10:41	4° <u>sc</u> 029'15	9.23324 AU	min. Earth dist.	-4903 May 11 j 20:41	10° <u>sc</u> 40'22	8.96294 AU
direct	-4909 May 14 j 01:44	1° <u>sc</u> 010'59		direct	-4903 Jul 20 j 06:59	7° <u>sc</u> 24'39	
evening set	-4909 Aug 24 j 15:45	8° <u>sc</u> 008'45		evening set	-4903 Oct 28 j 01:05	14° <u>sc</u> 27'35	
conjunction	-4909 Sep 10 j 03:37	10° <u>sc</u> 020'08	2°22'00	conjunction	-4903 Nov 13 j 14:19	16° <u>sc</u> 25'51	1°26'54
minimum elong	-4909 Sep 10 j 03:36	10° <u>sc</u> 020'07	2°22'12	minimum elong	-4903 Nov 13 j 14:22	16° <u>sc</u> 25'52	1°26'51
max. Earth dist.	-4909 Sep 09 j 17:25	9° <u>sc</u> 059'11	11.24849 AU	max. Earth dist.	-4903 Nov 12 j 20:55	16° <u>sc</u> 20'38	10.89944 AU
morning rise	-4909 Sep 26 j 12:30	11° <u>sc</u> 054'44		morning rise	-4903 Nov 30 j 06:13	18° <u>sc</u> 25'00	
	-4909 Oct 25 j 17:52	15° <u>sc</u>		retrograde	-4902 Mar 13 j 15:39	25° <u>sc</u> 44'41	
retrograde	-4908 Jan 03 j 12:57	18° <u>sc</u> 039'48		opposition	-4902 May 23 j 15:47	22° <u>sc</u> 22'52	1°31'09
opposition	-4908 Mar 13 j 19:01	15° <u>sc</u> 024'46	2°55'42	min. Earth dist.	-4902 May 24 j 06:30	22° <u>sc</u> 20'06	8.83166 AU
min. Earth dist.	-4908 Mar 14 j 05:24	15° <u>sc</u> 022'53	9.26036 AU	direct	-4902 Aug 01 j 04:28	19° <u>sc</u> 03'33	
	-4908 Mar 19 j 11:21	15° <u>R</u> <u>sc</u>		evening set	-4902 Nov 08 j 18:06	26° <u>sc</u> 12'42	
direct	-4908 May 24 j 15:39	12° <u>sc</u> 005'57					
	-4908 Jul 26 j 06:11	15° <u>sc</u>		conjunction	-4902 Nov 25 j 10:44	28° <u>sc</u> 13'41	1°01'11
evening set	-4908 Sep 03 j 15:55	19° <u>sc</u> 000'57		minimum elong	-4902 Nov 25 j 10:46	28° <u>sc</u> 13'42	1°01'04
max. Earth dist.	-4908 Sep 19 j 11:45	20° <u>sc</u> 049'45	11.26029 AU	max. Earth dist.	-4902 Nov 24 j 19:00	28° <u>sc</u> 08'54	10.76063 AU
					-4902 Dec 10 j 01:47	0° <u>sc</u>	
conjunction	-4908 Sep 20 j 01:24	20° <u>sc</u> 053'41	2°25'41	morning rise	-4902 Dec 12 j 06:41	0° <u>sc</u> 15'47	
minimum elong	-4908 Sep 20 j 01:24	20° <u>sc</u> 053'41	2°25'51	retrograde	-4901 Mar 26 j 16:55	7° <u>sc</u> 46'34	
morning rise	-4908 Oct 06 j 08:59	22° <u>sc</u> 045'55		opposition	-4901 Jun 05 j 10:00	4° <u>sc</u> 22'58	0°57'25
retrograde	-4907 Jan 13 j 19:37	29° <u>sc</u> 032'36		min. Earth dist.	-4901 Jun 05 j 22:41	4° <u>sc</u> 20'33	8.68548 AU
opposition	-4907 Mar 25 j 10:51	26° <u>sc</u> 017'10	2°57'02	direct	-4901 Aug 13 j 07:28	1° <u>sc</u> 02'50	
min. Earth dist.	-4907 Mar 25 j 23:45	26° <u>sc</u> 014'50	9.25722 AU	evening set	-4901 Nov 20 j 20:54	8° <u>sc</u> 19'46	
direct	-4907 Jun 05 j 03:32	22° <u>sc</u> 058'52					
evening set	-4907 Sep 14 j 14:02	29° <u>sc</u> 052'30		conjunction	-4901 Dec 07 j 17:16	10° <u>sc</u> 23'49	0°32'01
	-4907 Sep 15 j 16:30	0° <u>sc</u>		minimum elong	-4901 Dec 07 j 17:17	10° <u>sc</u> 23'49	0°31'51
				max. Earth dist.	-4901 Dec 07 j 03:00	10° <u>sc</u> 19'25	10.60959 AU
conjunction	-4907 Sep 30 j 22:18	1° <u>sc</u> 45'11	2°24'07	morning rise	-4901 Dec 24 j 17:46	12° <u>sc</u> 29'15	
minimum elong	-4907 Sep 30 j 22:20	1° <u>sc</u> 45'11	2°24'15		-4900 Jan 15 j 08:56	15° <u>sc</u>	

Attention, astronomical year style is used: The year -4900 in astronomical counting style is the year 4901 BCE in historical counting style.

retrograde	-4900 Apr 08 j 03:37	20° $\mathbb{M}$ 12'12	
opposition	-4900 Jun 17 j 12:19	16° $\mathbb{M}$ 46'47	0°19'50
min. Earth dist.	-4900 Jun 17 j 22:49	16° $\mathbb{M}$ 44'45	8.53040 AU
	-4900 Jul 11 j 19:25	15° $\mathbb{R}$ $\mathbb{M}$	
direct	-4900 Aug 24 j 16:34	13° $\mathbb{M}$ 25'40	
	-4900 Oct 06 j 05:03	15° $\mathbb{M}$	
evening set	-4900 Dec 02 j 11:19	20° $\mathbb{M}$ 51'51	
conjunction	-4900 Dec 19 j 11:45	22° $\mathbb{M}$ 59'13	0°00'26
minimum elong	-4900 Dec 19 j 11:45	22° $\mathbb{M}$ 59'13	0°00'15
behind sun begin	-4900 Dec 19 j 04:42	22° $\mathbb{M}$ 57'02	
behind sun end	-4900 Dec 19 j 18:48	23° $\mathbb{M}$ 01'25	
max. Earth dist.	-4900 Dec 18 j 23:18	22° $\mathbb{M}$ 55'20	10.45293 AU
desc. node	-4900 Dec 24 j 12:45	23° $\mathbb{M}$ 37'13	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodiens AG 7-Dez-2017 14:35, page 1

Attention, astronomical year style is used: The year -4900 in astronomical counting style is the year 4901 BCE in historical counting style.

	-4900 Jan 15 j 08:56	15°♄		direct	-4895 Oct 30 j 19:59	21°♄54'16	
retrograde	-4900 Apr 08 j 03:37	20°♄12'12			-4894 Feb 09 j 05:48	0°♄	
opposition	-4900 Jun 17 j 12:19	16°♄46'47	0°19'50	evening set	-4894 Feb 10 j 22:17	0°♄13'13	
min. Earth dist.	-4900 Jun 17 j 22:49	16°♄44'45	8.53040 AU				
	-4900 Jul 11 j 19:25	15°♄		conjunction	-4894 Feb 28 j 18:47	2°♄35'16	-2°-14'-7
direct	-4900 Aug 24 j 16:34	13°♄25'40		minimum elong	-4894 Feb 28 j 18:45	2°♄35'16	2°14'21
	-4900 Oct 06 j 05:03	15°♄		max. Earth dist.	-4894 Mar 01 j 05:01	2°♄38'41	9.86338 AU
evening set	-4900 Dec 02 j 11:19	20°♄51'51		morning rise	-4894 Mar 18 j 19:02	4°♄58'34	
				retrograde	-4894 Jul 04 j 17:59	13°♄39'34	
conjunction	-4900 Dec 19 j 11:45	22°♄59'13	0°00'26	opposition	-4894 Sep 09 j 21:16	10°♄07'41	-2°-55'-6
minimum elong	-4900 Dec 19 j 11:45	22°♄59'13	0°00'15	min. Earth dist.	-4894 Sep 09 j 11:41	10°♄09'42	7.84755 AU
behind sun begin	-4900 Dec 19 j 04:42	22°♄57'02		direct	-4894 Nov 14 j 13:44	6°♄39'15	
behind sun end	-4900 Dec 19 j 18:48	23°♄01'25		evening set	-4893 Feb 26 j 14:30	15°♄04'29	
max. Earth dist.	-4900 Dec 18 j 23:18	22°♄55'20	10.45293 AU		-4893 Feb 26 j 00:48	15°♄	
desc. node	-4900 Dec 24 j 12:45	23°♄37'13					
morning rise	-4899 Jan 05 j 17:09	25°♄08'13		conjunction	-4893 Mar 16 j 13:52	17°♄27'45	-2°-22'-28
	-4899 Feb 18 j 20:06	0°♄		minimum elong	-4893 Mar 16 j 13:52	17°♄27'44	2°22'39
retrograde	-4899 Apr 22 j 00:23	3°♄03'59		max. Earth dist.	-4893 Mar 17 j 04:05	17°♄32'30	9.83770 AU
	-4899 Jun 26 j 00:51	30°♄		morning rise	-4893 Apr 03 j 15:59	19°♄51'51	
opposition	-4899 Jun 30 j 23:14	29°♄36'49	0°-20'-8	retrograde	-4893 Jul 20 j 00:08	28°♄31'30	
min. Earth dist.	-4899 Jul 01 j 07:37	29°♄35'11	8.37361 AU	opposition	-4893 Sep 24 j 17:25	24°♄59'58	-2°-59'-37
direct	-4899 Sep 06 j 11:52	26°♄14'32		min. Earth dist.	-4893 Sep 24 j 05:27	25°♄02'29	7.84247 AU
	-4899 Nov 12 j 06:56	0°♄		direct	-4893 Nov 29 j 12:51	21°♄30'40	
evening set	-4899 Dec 15 j 14:48	3°♄51'11		evening set	-4892 Mar 13 j 09:50	29°♄58'45	
					-4892 Mar 13 j 13:41	0°♄	
conjunction	-4898 Jan 01 j 19:35	6°♄02'02	0°-32'-9				
minimum elong	-4898 Jan 01 j 19:34	6°♄02'01	0°32'24	conjunction	-4892 Mar 31 j 11:31	2°♄22'19	-2°-21'-20
max. Earth dist.	-4898 Jan 01 j 10:24	5°♄59'06	10.29806 AU	minimum elong	-4892 Mar 31 j 11:32	2°♄22'19	2°21'29
morning rise	-4898 Jan 19 j 05:47	8°♄14'37		max. Earth dist.	-4892 Apr 01 j 04:35	2°♄28'00	9.85284 AU
retrograde	-4898 May 06 j 07:53	16°♄23'14		morning rise	-4892 Apr 18 j 14:43	4°♄46'17	
opposition	-4898 Jul 14 j 18:48	12°♄54'28	-1°00'-34	retrograde	-4892 Aug 03 j 00:50	13°♄20'09	
min. Earth dist.	-4898 Jul 15 j 00:17	12°♄53'22	8.22301 AU	opposition	-4892 Oct 08 j 11:15	9°♄49'24	-2°-52'-5
direct	-4898 Sep 19 j 17:28	9°♄30'55		min. Earth dist.	-4892 Oct 07 j 22:00	9°♄52'11	7.87721 AU
evening set	-4898 Dec 29 j 08:28	17°♄18'49		direct	-4892 Dec 13 j 14:56	6°♄19'30	
				evening set	-4891 Mar 29 j 04:07	14°♄46'49	
conjunction	-4897 Jan 15 j 17:36	19°♄33'04	-1°-4'00				
minimum elong	-4897 Jan 15 j 17:33	19°♄33'03	1°04'16	conjunction	-4891 Apr 16 j 07:19	17°♄09'46	-2°-10'-56
max. Earth dist.	-4897 Jan 15 j 12:53	19°♄31'32	10.15319 AU	minimum elong	-4891 Apr 16 j 07:22	17°♄09'48	2°11'00
morning rise	-4897 Feb 02 j 08:09	21°♄49'06		max. Earth dist.	-4891 Apr 17 j 01:34	17°♄15'48	9.90675 AU
	-4897 May 07 j 13:17	0°♄		morning rise	-4891 May 04 j 10:40	19°♄32'40	
retrograde	-4897 May 21 j 01:36	0°♄09'41		retrograde	-4891 Aug 17 j 16:55	27°♄57'01	
	-4897 Jun 03 j 14:55	30°♄		min. Earth dist.	-4891 Oct 22 j 10:29	24°♄30'19	7.94803 AU
opposition	-4897 Jul 28 j 22:26	26°♄39'35	-1°-39'-3	opposition	-4891 Oct 23 j 00:09	24°♄27'28	-2°-33'-24
min. Earth dist.	-4897 Jul 29 j 00:15	26°♄39'13	8.08710 AU	direct	-4891 Dec 28 j 16:17	20°♄57'19	
direct	-4897 Oct 03 j 08:22	23°♄14'43		evening set	-4890 Apr 13 j 17:02	29°♄20'37	
	-4896 Jan 02 j 22:44	0°♄			-4890 Apr 18 j 19:24	0°♄	
evening set	-4896 Jan 12 j 16:25	1°♄14'01					
				conjunction	-4890 May 01 j 20:43	1°♄42'08	-1°-52'-16
conjunction	-4896 Jan 30 j 05:43	3°♄31'24	-1°-33'-4	minimum elong	-4890 May 01 j 20:48	1°♄42'09	1°52'17
minimum elong	-4896 Jan 30 j 05:39	3°♄31'22	1°33'20	max. Earth dist.	-4890 May 02 j 14:53	1°♄48'04	9.99416 AU
max. Earth dist.	-4896 Jan 30 j 06:13	3°♄31'34	10.02708 AU	morning rise	-4890 May 19 j 23:09	4°♄03'09	
morning rise	-4896 Feb 17 j 00:06	5°♄50'30		retrograde	-4890 Aug 31 j 22:52	12°♄15'32	
retrograde	-4896 Jun 04 j 03:08	14°♄21'13		opposition	-4890 Nov 06 j 06:33	8°♄47'32	-2°-5'-27
opposition	-4896 Aug 11 j 09:22	10°♄50'05	-2°-12'-47	min. Earth dist.	-4890 Nov 05 j 16:48	8°♄50'22	8.04899 AU
min. Earth dist.	-4896 Aug 11 j 06:53	10°♄50'35	7.97444 AU	direct	-4889 Jan 12 j 14:06	5°♄17'34	
direct	-4896 Oct 16 j 09:33	7°♄23'56		evening set	-4889 Apr 28 j 21:11	13°♄34'11	
evening set	-4895 Jan 26 j 13:41	15°♄33'54					
				conjunction	-4889 May 17 j 00:14	15°♄53'33	-1°-27'-6
conjunction	-4895 Feb 13 j 06:49	17°♄53'57	-1°-57'-8	minimum elong	-4889 May 17 j 00:18	15°♄53'34	1°27'03
minimum elong	-4895 Feb 13 j 06:45	17°♄53'56	1°57'23	max. Earth dist.	-4889 May 17 j 17:46	15°♄59'13	10.10873 AU
max. Earth dist.	-4895 Feb 13 j 12:26	17°♄55'49	9.92813 AU	morning rise	-4889 Jun 04 j 00:37	18°♄12'00	
morning rise	-4895 Mar 03 j 04:29	20°♄15'32		retrograde	-4889 Sep 14 j 17:33	26°♄11'08	
retrograde	-4895 Jun 19 j 09:49	28°♄53'23		opposition	-4889 Nov 20 j 05:08	22°♄44'53	-1°-30'-45
opposition	-4895 Aug 26 j 01:46	25°♄21'38	-2°-38'-57	min. Earth dist.	-4889 Nov 19 j 15:43	22°♄47'38	8.17396 AU
min. Earth dist.	-4895 Aug 25 j 19:19	25°♄22'58	7.89264 AU	direct	-4888 Jan 27 j 05:17	19°♄15'28	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 2

Attention, astronomical year style is used: The year -4888 in astronomical counting style is the year 4889 BCE in historical counting style.

evening set	-4888 May 12 j 14:45	27° $\Upsilon$ 23'26		min. Earth dist.	-4882 Feb 02 j 19:06	7° $\Theta$ 34'08	9.02330 AU
				direct	-4882 Apr 15 j 08:04	4° $\Theta$ 11'23	
conjunction	-4888 May 30 j 15:52	29° $\Upsilon$ 40'03	0°-57'-30	evening set	-4882 Jul 28 j 09:59	11° $\Theta$ 22'50	
minimum elong	-4888 May 30 j 15:55	29° $\Upsilon$ 40'04	0°57'24				
max. Earth dist.	-4888 May 31 j 08:10	29° $\Upsilon$ 45'14	10.24398 AU	conjunction	-4882 Aug 14 j 07:16	13° $\Theta$ 20'30	1°51'37
	-4888 Jun 02 j 06:40	0° $\Xi$		minimum elong	-4882 Aug 14 j 07:13	13° $\Theta$ 20'29	1°51'53
morning rise	-4888 Jun 17 j 13:06	1° $\Xi$ 55'24		max. Earth dist.	-4882 Aug 14 j 05:19	13° $\Theta$ 19'56	11.07372 AU
retrograde	-4888 Sep 27 j 02:27	9° $\Xi$ 40'53		morning rise	-4882 Aug 30 j 23:52	15° $\Theta$ 16'53	
opposition	-4888 Dec 02 j 19:07	6° $\Xi$ 16'28	0°-52'-4	retrograde	-4882 Dec 07 j 09:04	22° $\Theta$ 06'22	
min. Earth dist.	-4888 Dec 02 j 06:50	6° $\Xi$ 18'57	8.31616 AU	opposition	-4881 Feb 14 j 15:53	18° $\Theta$ 50'12	2°26'28
direct	-4887 Feb 09 j 11:42	2° $\Xi$ 47'50		min. Earth dist.	-4881 Feb 14 j 19:11	18° $\Theta$ 49'35	9.11995 AU
evening set	-4887 May 26 j 20:13	10° $\Xi$ 45'58		direct	-4881 Apr 27 j 09:29	15° $\Theta$ 28'37	
				evening set	-4881 Aug 08 j 22:05	22° $\Theta$ 33'42	
conjunction	-4887 Jun 13 j 18:08	12° $\Xi$ 59'23	0°-25'-37				
minimum elong	-4887 Jun 13 j 18:09	12° $\Xi$ 59'24	0°25'28	conjunction	-4881 Aug 25 j 14:54	24° $\Theta$ 29'18	2°07'41
max. Earth dist.	-4887 Jun 14 j 08:29	13° $\Xi$ 03'52	10.39240 AU	minimum elong	-4881 Aug 25 j 14:51	24° $\Theta$ 29'17	2°07'56
	-4887 Jun 29 j 22:17	15° $\Xi$		max. Earth dist.	-4881 Aug 25 j 09:05	24° $\Theta$ 27'37	11.15761 AU
morning rise	-4887 Jul 01 j 11:14	15° $\Xi$ 11'19		morning rise	-4881 Sep 11 j 03:51	26° $\Theta$ 23'48	
retrograde	-4887 Oct 10 j 00:37	22° $\Xi$ 43'36			-4881 Oct 15 j 15:58	0° $\Omega$	
opposition	-4887 Dec 16 j 00:41	19° $\Xi$ 21'02	0°-12'-1	retrograde	-4881 Dec 18 j 14:35	3° $\Omega$ 10'17	
min. Earth dist.	-4887 Dec 15 j 14:40	19° $\Xi$ 23'01	8.46790 AU		-4880 Feb 25 j 04:14	30° $\mathbb{R}$ $\Theta$	
direct	-4886 Feb 23 j 09:38	15° $\Xi$ 53'24		opposition	-4880 Feb 26 j 09:31	29° $\Theta$ 54'37	2°42'55
asc. node	-4886 Apr 09 j 11:44	17° $\Xi$ 33'03		min. Earth dist.	-4880 Feb 26 j 15:48	29° $\Theta$ 53'28	9.19169 AU
evening set	-4886 Jun 09 j 12:46	23° $\Xi$ 41'09		direct	-4880 May 08 j 06:53	26° $\Theta$ 34'04	
					-4880 Jul 15 j 22:00	0° $\Omega$	
conjunction	-4886 Jun 27 j 06:24	25° $\Xi$ 51'08	0°06'41	evening set	-4880 Aug 19 j 03:59	3° $\Omega$ 34'12	
minimum elong	-4886 Jun 27 j 06:23	25° $\Xi$ 51'08	0°06'53				
behind sun begin	-4886 Jun 26 j 23:41	25° $\Xi$ 49'06		conjunction	-4880 Sep 04 j 17:08	5° $\Omega$ 28'13	2°18'48
behind sun end	-4886 Jun 27 j 13:04	25° $\Xi$ 53'10		minimum elong	-4880 Sep 04 j 17:06	5° $\Omega$ 28'13	2°19'02
max. Earth dist.	-4886 Jun 27 j 17:43	25° $\Xi$ 54'37	10.54606 AU	max. Earth dist.	-4880 Sep 04 j 08:12	5° $\Omega$ 25'38	11.21549 AU
morning rise	-4886 Jul 14 j 18:45	27° $\Xi$ 59'32		morning rise	-4880 Sep 21 j 03:14	7° $\Omega$ 21'23	
	-4886 Aug 01 j 00:00	0° $\Pi$		retrograde	-4880 Dec 28 j 22:02	14° $\Omega$ 06'46	
retrograde	-4886 Oct 22 j 11:18	5° $\Pi$ 19'47		opposition	-4879 Mar 09 j 01:20	10° $\Omega$ 51'16	2°53'16
opposition	-4886 Dec 28 j 21:55	1° $\Pi$ 58'58	0°27'09	min. Earth dist.	-4879 Mar 09 j 09:18	10° $\Omega$ 49'49	9.23617 AU
min. Earth dist.	-4886 Dec 28 j 14:37	2° $\Pi$ 00'23	8.62140 AU	direct	-4879 May 20 j 00:19	7° $\Omega$ 31'41	
	-4885 Jan 25 j 00:22	30° $\mathbb{R}$ $\Xi$		evening set	-4879 Aug 30 j 05:24	14° $\Omega$ 28'10	
direct	-4885 Mar 08 j 23:03	28° $\Xi$ 32'28			-4879 Sep 03 j 21:30	15° $\Omega$	
	-4885 Apr 20 j 12:24	0° $\Pi$					
evening set	-4885 Jun 22 j 16:47	6° $\Pi$ 09'58		conjunction	-4879 Sep 15 j 15:58	16° $\Omega$ 21'15	2°24'47
				minimum elong	-4879 Sep 15 j 15:58	16° $\Omega$ 21'15	2°24'58
conjunction	-4885 Jul 10 j 05:23	8° $\Pi$ 16'30	0°37'36	max. Earth dist.	-4879 Sep 15 j 05:31	16° $\Omega$ 18'14	11.24553 AU
minimum elong	-4885 Jul 10 j 05:21	8° $\Pi$ 16'29	0°37'50	morning rise	-4879 Oct 02 j 00:03	18° $\Omega$ 13'41	
max. Earth dist.	-4885 Jul 10 j 12:40	8° $\Pi$ 18'42	10.69740 AU	retrograde	-4878 Jan 09 j 05:19	24° $\Omega$ 59'42	
morning rise	-4885 Jul 27 j 12:44	10° $\Pi$ 21'26		opposition	-4878 Mar 20 j 16:48	21° $\Omega$ 44'05	2°57'21
retrograde	-4885 Nov 03 j 13:35	17° $\Pi$ 31'12		min. Earth dist.	-4878 Mar 21 j 02:28	21° $\Omega$ 42'20	9.25204 AU
opposition	-4884 Jan 10 j 11:15	14° $\Pi$ 11'56	1°03'43	direct	-4878 May 31 j 11:54	18° $\Omega$ 25'17	
min. Earth dist.	-4884 Jan 10 j 06:30	14° $\Pi$ 12'51	8.76930 AU	evening set	-4878 Sep 10 j 04:04	25° $\Omega$ 19'33	
direct	-4884 Mar 21 j 03:05	10° $\Pi$ 46'40					
evening set	-4884 Jul 04 j 08:51	18° $\Pi$ 14'31		conjunction	-4878 Sep 26 j 12:56	27° $\Omega$ 12'15	2°25'32
				minimum elong	-4878 Sep 26 j 12:57	27° $\Omega$ 12'15	2°25'41
conjunction	-4884 Jul 21 j 16:14	20° $\Pi$ 17'45	1°06'01	max. Earth dist.	-4878 Sep 26 j 00:32	27° $\Omega$ 08'40	11.24679 AU
minimum elong	-4884 Jul 21 j 16:11	20° $\Pi$ 17'44	1°06'15	morning rise	-4878 Oct 12 j 20:08	29° $\Omega$ 04'34	
max. Earth dist.	-4884 Jul 21 j 19:48	20° $\Pi$ 18'49	10.83952 AU		-4878 Oct 21 j 02:48	0° $\mathbb{M}$	
morning rise	-4884 Aug 07 j 18:28	22° $\Pi$ 19'26		retrograde	-4877 Jan 20 j 15:39	5° $\mathbb{M}$ 52'58	
retrograde	-4884 Nov 14 j 08:32	29° $\Pi$ 20'33		opposition	-4877 Apr 01 j 09:08	2° $\mathbb{M}$ 36'57	2°55'07
opposition	-4883 Jan 21 j 17:56	26° $\Pi$ 02'34	1°36'21	min. Earth dist.	-4877 Apr 01 j 21:06	2° $\mathbb{M}$ 34'47	9.23874 AU
min. Earth dist.	-4883 Jan 21 j 15:15	26° $\Pi$ 03'04	8.90505 AU		-4877 May 12 j 22:42	30° $\mathbb{R}$ $\Omega$	
direct	-4883 Apr 02 j 21:35	22° $\Pi$ 38'35		direct	-4877 Jun 11 j 23:08	29° $\Omega$ 18'42	
evening set	-4883 Jul 16 j 14:05	29° $\Pi$ 57'39			-4877 Jul 11 j 11:47	0° $\mathbb{M}$	
	-4883 Jul 16 j 22:12	0° $\Theta$		evening set	-4877 Sep 21 j 02:01	6° $\mathbb{M}$ 12'12	
conjunction	-4883 Aug 02 j 16:17	1° $\Theta$ 57'54	1°30'54	conjunction	-4877 Oct 07 j 10:03	8° $\mathbb{M}$ 05'07	2°21'01
minimum elong	-4883 Aug 02 j 16:14	1° $\Theta$ 57'53	1°31'10	minimum elong	-4877 Oct 07 j 10:05	8° $\mathbb{M}$ 05'08	2°21'08
max. Earth dist.	-4883 Aug 02 j 17:15	1° $\Theta$ 58'11	10.96651 AU	max. Earth dist.	-4877 Oct 06 j 19:02	8° $\mathbb{M}$ 00'46	11.21920 AU
morning rise	-4883 Aug 19 j 13:25	3° $\Theta$ 56'43		morning rise	-4877 Oct 23 j 17:35	9° $\mathbb{M}$ 57'56	
retrograde	-4883 Nov 25 j 22:41	10° $\Theta$ 51'05		retrograde	-4876 Feb 01 j 04:01	16° $\mathbb{M}$ 50'22	
opposition	-4882 Feb 02 j 19:06	7° $\Theta$ 34'08	2°04'09	opposition	-4876 Apr 12 j 03:29	13° $\mathbb{M}$ 33'40	2°46'34

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 3

Attention, astronomical year style is used: The year -4876 in astronomical counting style is the year 4877 BCE in historical counting style.

min. Earth dist.	-4876 Apr 12 j 17:14	13° $\mathring{M}$ 31'09	9.19667 AU	opposition	-4870 Jun 25 j 05:50	24° $\mathring{M}$ 00'18	0°-1'-58
direct	-4876 Jun 22 j 09:12	10° $\mathring{M}$ 15'45		min. Earth dist.	-4870 Jun 25 j 15:34	23° $\mathring{M}$ 58'25	8.47294 AU
evening set	-4876 Oct 01 j 00:50	17° $\mathring{M}$ 09'58		direct	-4870 Sep 01 j 03:15	20° $\mathring{M}$ 39'12	
				evening set	-4870 Dec 10 j 00:19	28° $\mathring{M}$ 09'37	
conjunction	-4876 Oct 17 j 09:13	19° $\mathring{M}$ 03'40	2°11'18		-4870 Dec 24 j 16:31	0° $\mathring{A}$	
minimum elong	-4876 Oct 17 j 09:15	19° $\mathring{M}$ 03'41	2°11'23				
max. Earth dist.	-4876 Oct 16 j 17:24	18° $\mathring{M}$ 59'03	11.16360 AU	conjunction	-4870 Dec 27 j 03:03	0° $\mathring{A}$ 18'30	0°-17'-27
morning rise	-4876 Nov 02 j 18:00	20° $\mathring{M}$ 57'34		minimum elong	-4870 Dec 27 j 03:02	0° $\mathring{A}$ 18'30	0°17'41
retrograde	-4875 Feb 11 j 23:15	27° $\mathring{M}$ 55'45		max. Earth dist.	-4870 Dec 26 j 16:33	0° $\mathring{A}$ 15'12	10.39503 AU
opposition	-4875 Apr 24 j 01:17	24° $\mathring{M}$ 38'02	2°31'48	morning rise	-4869 Jan 13 j 10:41	2° $\mathring{A}$ 29'02	
min. Earth dist.	-4875 Apr 24 j 15:17	24° $\mathring{M}$ 35'28	9.12711 AU	retrograde	-4869 Apr 30 j 04:09	10° $\mathring{A}$ 30'24	
direct	-4875 Jul 03 j 22:25	21° $\mathring{M}$ 20'13		opposition	-4869 Jul 08 j 20:31	7° $\mathring{A}$ 02'56	0°-42'-20
evening set	-4875 Oct 12 j 02:19	28° $\mathring{M}$ 16'35		min. Earth dist.	-4869 Jul 09 j 03:19	7° $\mathring{A}$ 01'36	8.31604 AU
	-4875 Oct 26 j 20:25	0° $\mathring{A}$		direct	-4869 Sep 14 j 02:03	3° $\mathring{A}$ 40'32	
				evening set	-4869 Dec 23 j 10:29	11° $\mathring{A}$ 21'53	
conjunction	-4875 Oct 28 j 12:07	0° $\mathring{A}$ 11'42	1°56'32				
minimum elong	-4875 Oct 28 j 12:10	0° $\mathring{A}$ 11'42	1°56'34	conjunction	-4868 Jan 09 j 17:25	13° $\mathring{A}$ 34'13	0°-49'-46
max. Earth dist.	-4875 Oct 27 j 20:33	0° $\mathring{A}$ 07'06	11.08159 AU	minimum elong	-4868 Jan 09 j 17:22	13° $\mathring{A}$ 34'12	0°50'01
morning rise	-4875 Nov 13 j 23:02	2° $\mathring{A}$ 07'14		max. Earth dist.	-4868 Jan 09 j 09:50	13° $\mathring{A}$ 31'47	10.24134 AU
retrograde	-4874 Feb 24 j 01:51	9° $\mathring{A}$ 12'44		morning rise	-4868 Jan 27 j 05:41	15° $\mathring{A}$ 48'19	
opposition	-4874 May 06 j 03:35	5° $\mathring{A}$ 53'46	2°11'00	retrograde	-4868 May 13 j 17:25	24° $\mathring{A}$ 02'14	
min. Earth dist.	-4874 May 06 j 17:15	5° $\mathring{A}$ 51'14	9.03219 AU	opposition	-4868 Jul 21 j 19:46	20° $\mathring{A}$ 33'10	-1°-21'-54
direct	-4874 Jul 15 j 12:10	2° $\mathring{A}$ 35'49		min. Earth dist.	-4868 Jul 21 j 23:30	20° $\mathring{A}$ 32'25	8.16853 AU
evening set	-4874 Oct 23 j 08:47	9° $\mathring{A}$ 35'52		direct	-4868 Sep 26 j 10:46	17° $\mathring{A}$ 09'18	
				evening set	-4867 Jan 05 j 10:58	25° $\mathring{A}$ 02'08	
conjunction	-4874 Nov 08 j 20:43	11° $\mathring{A}$ 32'53	1°36'59				
minimum elong	-4874 Nov 08 j 20:46	11° $\mathring{A}$ 32'53	1°36'56	conjunction	-4867 Jan 22 j 22:03	27° $\mathring{A}$ 17'45	-1°-20'-17
max. Earth dist.	-4874 Nov 08 j 04:38	11° $\mathring{A}$ 28'05	10.97573 AU	minimum elong	-4867 Jan 22 j 21:59	27° $\mathring{A}$ 17'44	1°20'33
morning rise	-4874 Nov 25 j 10:45	13° $\mathring{A}$ 30'38		max. Earth dist.	-4867 Jan 22 j 18:06	27° $\mathring{A}$ 16'28	10.10136 AU
retrograde	-4873 Mar 08 j 11:00	20° $\mathring{A}$ 44'55		morning rise	-4867 Feb 09 j 14:36	29° $\mathring{A}$ 35'10	
opposition	-4873 May 18 j 11:20	17° $\mathring{A}$ 24'28	1°44'30		-4867 Feb 12 j 20:44	0° $\mathring{B}$	
min. Earth dist.	-4873 May 19 j 01:08	17° $\mathring{A}$ 21'54	8.91497 AU	retrograde	-4867 May 28 j 13:58	8° $\mathring{B}$ 00'15	
direct	-4873 Jul 27 j 05:33	14° $\mathring{A}$ 06'06		opposition	-4867 Aug 05 j 02:37	4° $\mathring{B}$ 29'50	-1°-58'-4
evening set	-4873 Nov 03 j 21:56	21° $\mathring{A}$ 11'25		min. Earth dist.	-4867 Aug 05 j 03:19	4° $\mathring{B}$ 29'41	8.03949 AU
				direct	-4867 Oct 10 j 07:19	1° $\mathring{B}$ 04'27	
conjunction	-4873 Nov 20 j 12:41	23° $\mathring{A}$ 10'50	1°13'03	evening set	-4866 Jan 20 j 01:18	9° $\mathring{B}$ 08'30	
minimum elong	-4873 Nov 20 j 12:43	23° $\mathring{A}$ 10'51	1°12'57				
max. Earth dist.	-4873 Nov 19 j 20:19	23° $\mathring{A}$ 05'54	10.84949 AU	conjunction	-4866 Feb 06 j 16:22	11° $\mathring{B}$ 27'05	-1°-46'-51
morning rise	-4873 Dec 07 j 06:39	25° $\mathring{A}$ 11'16		minimum elong	-4866 Feb 06 j 16:19	11° $\mathring{B}$ 27'04	1°47'07
	-4872 Jan 22 j 08:49	0° $\mathring{M}$		max. Earth dist.	-4866 Feb 06 j 16:56	11° $\mathring{B}$ 27'16	9.98388 AU
retrograde	-4872 Mar 20 j 05:40	2° $\mathring{M}$ 35'47		morning rise	-4866 Feb 24 j 12:36	13° $\mathring{B}$ 47'20	
	-4872 May 19 j 17:28	30° $\mathring{R}$ $\mathring{A}$		retrograde	-4866 Jun 12 j 16:41	22° $\mathring{B}$ 21'12	
opposition	-4872 May 30 j 01:53	29° $\mathring{A}$ 13'41	1°12'53	opposition	-4866 Aug 19 j 15:50	18° $\mathring{B}$ 49'46	-2°-28'00
min. Earth dist.	-4872 May 30 j 15:25	29° $\mathring{A}$ 11'08	8.77939 AU	min. Earth dist.	-4866 Aug 19 j 13:14	18° $\mathring{B}$ 50'18	7.93716 AU
direct	-4872 Aug 07 j 05:41	25° $\mathring{A}$ 54'36		direct	-4866 Oct 24 j 13:34	15° $\mathring{B}$ 22'54	
	-4872 Oct 18 j 03:50	0° $\mathring{M}$		evening set	-4865 Feb 04 j 03:47	23° $\mathring{B}$ 37'00	
evening set	-4872 Nov 14 j 19:29	3° $\mathring{M}$ 06'44					
				conjunction	-4865 Feb 21 j 22:31	25° $\mathring{B}$ 57'59	-2°-7'-19
conjunction	-4872 Dec 01 j 13:49	5° $\mathring{M}$ 08'59	0°45'21	minimum elong	-4865 Feb 21 j 22:28	25° $\mathring{B}$ 57'58	2°07'34
minimum elong	-4872 Dec 01 j 13:51	5° $\mathring{M}$ 09'00	0°45'13	max. Earth dist.	-4865 Feb 22 j 04:12	25° $\mathring{B}$ 59'52	9.89674 AU
max. Earth dist.	-4872 Nov 30 j 22:41	5° $\mathring{M}$ 04'21	10.70696 AU	morning rise	-4865 Mar 11 j 21:38	28° $\mathring{B}$ 20'23	
morning rise	-4872 Dec 18 j 12:09	7° $\mathring{M}$ 12'31			-4865 Mar 24 j 21:36	0° $\mathring{B}$	
retrograde	-4871 Apr 02 j 09:34	14° $\mathring{M}$ 48'31		retrograde	-4865 Jun 27 j 22:45	6° $\mathring{B}$ 59'37	
opposition	-4871 Jun 11 j 23:52	11° $\mathring{M}$ 24'37	0°36'59	opposition	-4865 Sep 03 j 09:21	3° $\mathring{B}$ 27'37	-2°-49'-3
min. Earth dist.	-4871 Jun 12 j 12:07	11° $\mathring{M}$ 22'17	8.63007 AU	min. Earth dist.	-4865 Sep 03 j 03:07	3° $\mathring{B}$ 28'55	7.86841 AU
direct	-4871 Aug 19 j 12:23	8° $\mathring{M}$ 04'37			-4865 Nov 04 j 23:57	30° $\mathring{R}$ $\mathring{B}$	
	-4871 Nov 23 j 16:31	15° $\mathring{M}$		direct	-4865 Nov 08 j 03:38	29° $\mathring{B}$ 59'25	
evening set	-4871 Nov 27 j 03:42	15° $\mathring{M}$ 25'10			-4865 Nov 11 j 07:08	0° $\mathring{B}$	
				evening set	-4864 Feb 19 j 15:43	8° $\mathring{B}$ 21'23	
conjunction	-4871 Dec 14 j 02:10	17° $\mathring{M}$ 30'37	0°14'49				
minimum elong	-4871 Dec 14 j 02:10	17° $\mathring{M}$ 30'37	0°14'38	conjunction	-4864 Mar 08 j 13:45	10° $\mathring{B}$ 44'04	-2°-19'-50
behind sun begin	-4871 Dec 13 j 23:05	17° $\mathring{M}$ 29'40		minimum elong	-4864 Mar 08 j 13:44	10° $\mathring{B}$ 44'03	2°20'03
behind sun end	-4871 Dec 14 j 05:16	17° $\mathring{M}$ 31'34		max. Earth dist.	-4864 Mar 09 j 00:19	10° $\mathring{B}$ 47'36	9.84617 AU
max. Earth dist.	-4871 Dec 13 j 13:22	17° $\mathring{M}$ 26'39	10.55315 AU	morning rise	-4864 Mar 26 j 15:05	13° $\mathring{B}$ 07'48	
morning rise	-4871 Dec 31 j 05:05	19° $\mathring{M}$ 37'33			-4864 Apr 10 j 06:03	15° $\mathring{B}$	
retrograde	-4870 Apr 16 j 00:55	27° $\mathring{M}$ 26'01		retrograde	-4864 Jul 12 j 05:13	21° $\mathring{B}$ 48'12	
desc. node	-4870 Jun 06 j 10:47	25° $\mathring{M}$ 25'05		opposition	-4864 Sep 17 j 04:44	18° $\mathring{B}$ 16'08	-2°-59'-10

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodiens AG 7-Dez-2017 14:35, page 4

Attention, astronomical year style is used: The year -4864 in astronomical counting style is the year 4865 BCE in historical counting style.

min. Earth dist.	-4864 Sep 16 j 19:10	18° <del>18</del> '08	7.83806 AU	max. Earth dist.	-4858 Jun 08 j 05:41	7° <del>8</del> '07'03	10.30978 AU
	-4864 Nov 06 j 21:22	15° <del>15</del> ' <del>15</del>		morning rise	-4858 Jun 25 j 09:48	9° <del>8</del> '15'57	
direct	-4864 Nov 21 j 23:34	14° <del>14</del> '46'48			-4858 Aug 18 j 20:23	15° <del>8</del>	
	-4864 Dec 07 j 00:56	15° <del>15</del> ' <del>15</del>		retrograde	-4858 Oct 04 j 09:09	16° <del>8</del> '54'39	
evening set	-4863 Mar 06 j 09:20	23° <del>23</del> '13'38			-4858 Nov 21 j 02:03	15° <del>15</del> ' <del>15</del>	
				opposition	-4858 Dec 10 j 06:39	13° <del>8</del> '30'49	0°-31'00
conjunction	-4863 Mar 24 j 10:08	25° <del>25</del> '37'11	-2°-23'-11	min. Earth dist.	-4858 Dec 09 j 19:03	13° <del>8</del> '33'08	8.38577 AU
minimum elong	-4863 Mar 24 j 10:08	25° <del>25</del> '37'11	2°23'21	direct	-4857 Feb 17 j 08:42	10° <del>8</del> '02'19	
max. Earth dist.	-4863 Mar 25 j 00:47	25° <del>25</del> '42'05	9.83574 AU		-4857 May 09 j 07:18	15° <del>8</del>	
morning rise	-4863 Apr 11 j 12:55	28° <del>28</del> '01'21		evening set	-4857 Jun 03 j 13:23	17° <del>8</del> '55'12	
	-4863 Apr 27 j 00:59	0° <del>0</del> ' <del>0</del>					
retrograde	-4863 Jul 27 j 09:00	6° <del>6</del> '38'26		conjunction	-4857 Jun 21 j 09:11	20° <del>8</del> '06'56	0°-8'-35
opposition	-4863 Oct 01 j 23:24	3° <del>3</del> '06'48	-2°-57'-18	minimum elong	-4857 Jun 21 j 09:11	20° <del>8</del> '06'56	0°08'25
min. Earth dist.	-4863 Oct 01 j 11:12	3° <del>3</del> '09'22	7.84803 AU	behind sun begin	-4857 Jun 21 j 02:51	20° <del>8</del> '04'59	
	-4863 Nov 16 j 19:08	30° <del>30</del> ' <del>30</del>		behind sun end	-4857 Jun 21 j 15:31	20° <del>8</del> '08'52	
direct	-4863 Dec 06 j 23:48	29° <del>29</del> '36'39		max. Earth dist.	-4857 Jun 21 j 22:03	20° <del>8</del> '10'54	10.46522 AU
	-4863 Dec 27 j 04:06	0° <del>0</del> ' <del>0</del>		morning rise	-4857 Jul 09 j 00:07	22° <del>8</del> '17'06	
evening set	-4862 Mar 22 j 04:14	8° <del>8</del> '04'51		asc. node	-4857 Sep 29 j 16:21	29° <del>8</del> '26'38	
				retrograde	-4857 Oct 17 j 00:50	29° <del>8</del> '43'07	
conjunction	-4862 Apr 09 j 07:00	10° <del>10</del> '28'19	-2°-17'-4	opposition	-4857 Dec 23 j 07:36	26° <del>8</del> '21'13	0°08'52
minimum elong	-4862 Apr 09 j 07:03	10° <del>10</del> '28'20	2°17'10	min. Earth dist.	-4857 Dec 22 j 21:30	26° <del>8</del> '23'13	8.54272 AU
max. Earth dist.	-4862 Apr 10 j 00:39	10° <del>10</del> '34'11	9.86596 AU	direct	-4856 Mar 02 j 02:24	22° <del>8</del> '54'00	
morning rise	-4862 Apr 27 j 10:20	12° <del>12</del> '51'57			-4856 Jun 10 j 20:15	0° <del>0</del> ' <del>0</del>	
retrograde	-4862 Aug 11 j 05:53	21° <del>21</del> '21'36		evening set	-4856 Jun 15 j 23:23	0° <del>0</del> ' <del>0</del> 36'30	
opposition	-4862 Oct 16 j 14:42	17° <del>17</del> '50'53	-2°-43'-43				
min. Earth dist.	-4862 Oct 16 j 00:53	17° <del>17</del> '53'47	7.89739 AU	conjunction	-4856 Jul 03 j 14:38	2° <del>2</del> '44'44	0°23'15
direct	-4862 Dec 22 j 01:01	14° <del>14</del> '20'17		minimum elong	-4856 Jul 03 j 14:37	2° <del>2</del> '44'43	0°23'28
evening set	-4861 Apr 06 j 19:57	22° <del>22</del> '46'16		max. Earth dist.	-4856 Jul 04 j 01:10	2° <del>2</del> '47'56	10.62203 AU
				morning rise	-4856 Jul 21 j 00:28	4° <del>4</del> '51'21	
conjunction	-4861 Apr 24 j 23:45	25° <del>25</del> '08'46	-2°-2'-7	retrograde	-4856 Oct 28 j 08:56	12° <del>12</del> '06'05	
minimum elong	-4861 Apr 24 j 23:49	25° <del>25</del> '08'47	2°02'09	opposition	-4855 Jan 04 j 00:36	8° <del>8</del> '46'01	0°46'54
max. Earth dist.	-4861 Apr 25 j 18:56	25° <del>25</del> '15'05	9.93447 AU	min. Earth dist.	-4855 Jan 03 j 17:10	8° <del>8</del> '47'28	8.69756 AU
morning rise	-4861 May 13 j 02:40	27° <del>27</del> '30'56		direct	-4855 Mar 15 j 09:23	5° <del>5</del> '20'12	
	-4861 Jun 02 j 01:44	0° <del>0</del> ' <del>0</del>		evening set	-4855 Jun 28 j 21:20	12° <del>12</del> '52'42	
retrograde	-4861 Aug 25 j 17:20	5° <del>5</del> '49'52					
min. Earth dist.	-4861 Oct 30 j 10:18	2° <del>2</del> '23'27	7.98254 AU	conjunction	-4855 Jul 16 j 07:24	14° <del>14</del> '57'32	0°53'01
opposition	-4861 Oct 31 j 00:27	2° <del>2</del> '20'29	-2°-19'-49	minimum elong	-4855 Jul 16 j 07:22	14° <del>14</del> '57'31	0°53'16
	-4861 Nov 30 j 20:48	30° <del>30</del> ' <del>30</del>		max. Earth dist.	-4855 Jul 16 j 14:41	14° <del>14</del> '59'43	10.77277 AU
direct	-4860 Jan 06 j 00:05	28° <del>28</del> '49'51		morning rise	-4855 Aug 02 j 11:57	17° <del>17</del> '00'45	
	-4860 Feb 11 j 00:34	0° <del>0</del> ' <del>0</del>		retrograde	-4855 Nov 09 j 07:57	24° <del>24</del> '05'55	
evening set	-4860 Apr 21 j 04:38	7° <del>7</del> '10'25		opposition	-4854 Jan 16 j 10:46	20° <del>20</del> '47'29	1°21'34
				min. Earth dist.	-4854 Jan 16 j 06:36	20° <del>20</del> '48'17	8.84332 AU
conjunction	-4860 May 09 j 08:19	9° <del>9</del> '31'05	-1°-39'-45	direct	-4854 Mar 28 j 07:11	17° <del>17</del> '23'06	
minimum elong	-4860 May 09 j 08:23	9° <del>9</del> '31'07	1°39'44	evening set	-4854 Jul 11 j 07:55	24° <del>24</del> '46'22	
max. Earth dist.	-4860 May 10 j 03:21	9° <del>9</del> '37'16	10.03618 AU				
morning rise	-4860 May 27 j 09:50	11° <del>11</del> '51'01		conjunction	-4854 Jul 28 j 12:33	26° <del>26</del> '48'01	1°19'42
retrograde	-4860 Sep 07 j 17:47	19° <del>19</del> '57'06		minimum elong	-4854 Jul 28 j 12:31	26° <del>26</del> '48'00	1°19'57
opposition	-4860 Nov 13 j 02:58	16° <del>16</del> '29'24	-1°-47'-56	max. Earth dist.	-4854 Jul 28 j 15:42	26° <del>26</del> '48'57	10.91102 AU
min. Earth dist.	-4860 Nov 12 j 13:22	16° <del>16</del> '32'13	8.09742 AU	morning rise	-4854 Aug 14 j 12:05	28° <del>28</del> '48'10	
direct	-4859 Jan 19 j 18:23	12° <del>12</del> '59'06			-4854 Aug 24 j 23:51	0° <del>0</del> ' <del>0</del>	
evening set	-4859 May 06 j 03:40	21° <del>21</del> '11'48		retrograde	-4854 Nov 20 j 23:38	5° <del>5</del> '45'39	
				opposition	-4853 Jan 28 j 14:48	2° <del>2</del> '28'32	1°51'45
conjunction	-4859 May 24 j 05:52	23° <del>23</del> '29'57	-1°-11'-58	min. Earth dist.	-4853 Jan 28 j 13:39	2° <del>2</del> '28'45	8.97388 AU
minimum elong	-4859 May 24 j 05:55	23° <del>23</del> '29'58	1°11'53		-4853 Mar 06 j 15:18	30° <del>30</del> ' <del>30</del>	
max. Earth dist.	-4859 May 24 j 23:22	23° <del>23</del> '35'33	10.16396 AU	direct	-4853 Apr 09 j 22:28	29° <del>29</del> '05'32	
morning rise	-4859 Jun 11 j 04:50	25° <del>25</del> '47'00			-4853 May 13 j 21:19	0° <del>0</del> ' <del>0</del>	
	-4859 Jul 17 j 17:58	0° <del>0</del> ' <del>0</del>		evening set	-4853 Jul 23 j 08:37	6° <del>6</del> '20'37	
retrograde	-4859 Sep 21 j 07:10	3° <del>3</del> '39'18					
opposition	-4859 Nov 26 j 21:07	0° <del>0</del> '13'30	-1°-10'-45	conjunction	-4853 Aug 09 j 08:05	8° <del>8</del> '19'26	1°42'28
min. Earth dist.	-4859 Nov 26 j 08:30	0° <del>0</del> '16'04	8.23455 AU	minimum elong	-4853 Aug 09 j 08:02	8° <del>8</del> '19'25	1°42'43
	-4859 Nov 29 j 15:28	30° <del>30</del> ' <del>30</del>		max. Earth dist.	-4853 Aug 09 j 07:11	8° <del>8</del> '19'11	11.03127 AU
direct	-4858 Feb 03 j 05:28	26° <del>26</del> '43'56		morning rise	-4853 Aug 26 j 02:55	10° <del>10</del> '16'55	
	-4858 Apr 07 j 17:19	0° <del>0</del> ' <del>0</del>		retrograde	-4853 Dec 02 j 11:54	17° <del>17</del> '08'35	
evening set	-4858 May 20 j 14:55	4° <del>4</del> '47'09		opposition	-4852 Feb 09 j 13:40	13° <del>13</del> '52'29	2°16'42
				min. Earth dist.	-4852 Feb 09 j 14:55	13° <del>13</del> '52'15	9.08397 AU
conjunction	-4858 Jun 07 j 14:25	7° <del>7</del> '02'14	0°-40'-52	direct	-4852 Apr 21 j 05:19	10° <del>10</del> '30'47	
minimum elong	-4858 Jun 07 j 14:27	7° <del>7</del> '02'15	0°40'45	evening set	-4852 Aug 03 j 00:43	17° <del>17</del> '38'50	



## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 5

Attention, astronomical year style is used: The year -4852 in astronomical counting style is the year 4853 BCE in historical counting style.

conjunction	-4852 Aug 19 j 19:36	19° $\mathfrak{E}$ 35'20	2°00'45	conjunction	-4846 Oct 23 j 20:30	25° $\mathfrak{M}$ 21'29	2°03'52
minimum elong	-4852 Aug 19 j 19:34	19° $\mathfrak{E}$ 35'19	2°01'00	minimum elong	-4846 Oct 23 j 20:32	25° $\mathfrak{M}$ 21'30	2°03'55
max. Earth dist.	-4852 Aug 19 j 15:55	19° $\mathfrak{E}$ 34'15	11.12879 AU	max. Earth dist.	-4846 Oct 23 j 02:48	25° $\mathfrak{M}$ 16'18	11.11250 AU
morning rise	-4852 Sep 05 j 10:12	21° $\mathfrak{E}$ 30'38		morning rise	-4846 Nov 09 j 06:27	27° $\mathfrak{M}$ 16'20	
retrograde	-4852 Dec 12 j 20:45	28° $\mathfrak{E}$ 18'22			-4846 Dec 04 j 06:55	0° $\mathfrak{L}$	
opposition	-4851 Feb 20 j 09:04	25° $\mathfrak{E}$ 02'56	2°35'55	retrograde	-4845 Feb 18 j 22:23	4° $\mathfrak{L}$ 18'39	
min. Earth dist.	-4851 Feb 20 j 13:01	25° $\mathfrak{E}$ 02'12	9.16921 AU	opposition	-4845 May 01 j 00:47	1° $\mathfrak{L}$ 00'03	2°21'14
direct	-4851 May 03 j 05:10	21° $\mathfrak{E}$ 42'23		min. Earth dist.	-4845 May 01 j 16:32	0° $\mathfrak{L}$ 57'10	9.06664 AU
evening set	-4851 Aug 14 j 09:46	28° $\mathfrak{E}$ 44'45			-4845 May 14 j 20:19	30° $\mathfrak{R}$ $\mathfrak{M}$	
	-4851 Aug 25 j 08:26	0° $\mathfrak{L}$		direct	-4845 Jul 10 j 14:29	27° $\mathfrak{M}$ 41'50	
					-4845 Sep 02 j 15:40	0° $\mathfrak{L}$	
conjunction	-4851 Aug 31 j 00:40	0° $\mathfrak{L}$ 39'25	2°14'12	evening set	-4845 Oct 18 j 15:34	4° $\mathfrak{L}$ 40'32	
minimum elong	-4851 Aug 31 j 00:38	0° $\mathfrak{L}$ 39'25	2°14'26	max. Earth dist.	-4845 Nov 03 j 08:43	6° $\mathfrak{L}$ 31'30	11.01296 AU
max. Earth dist.	-4851 Aug 30 j 18:01	0° $\mathfrak{L}$ 37'30	11.19969 AU				
morning rise	-4851 Sep 16 j 11:50	2° $\mathfrak{L}$ 33'06		conjunction	-4845 Nov 04 j 02:23	6° $\mathfrak{L}$ 36'45	1°46'28
retrograde	-4851 Dec 24 j 04:33	9° $\mathfrak{L}$ 18'51		minimum elong	-4845 Nov 04 j 02:26	6° $\mathfrak{L}$ 36'45	1°46'27
opposition	-4850 Mar 04 j 02:11	6° $\mathfrak{L}$ 03'46	2°49'08	morning rise	-4845 Nov 20 j 15:03	8° $\mathfrak{L}$ 33'34	
min. Earth dist.	-4850 Mar 04 j 09:41	6° $\mathfrak{L}$ 02'23	9.22625 AU	retrograde	-4844 Mar 02 j 03:24	15° $\mathfrak{L}$ 44'08	
direct	-4850 May 14 j 23:25	2° $\mathfrak{L}$ 44'11		opposition	-4844 May 12 j 06:06	12° $\mathfrak{L}$ 23'58	1°57'18
evening set	-4850 Aug 25 j 13:41	9° $\mathfrak{L}$ 42'18		min. Earth dist.	-4844 May 12 j 21:21	12° $\mathfrak{L}$ 21'08	8.95521 AU
				direct	-4844 Jul 21 j 08:14	9° $\mathfrak{L}$ 05'18	
conjunction	-4850 Sep 11 j 01:19	11° $\mathfrak{L}$ 35'45	2°22'35	evening set	-4844 Oct 29 j 01:22	16° $\mathfrak{L}$ 08'37	
minimum elong	-4850 Sep 11 j 01:18	11° $\mathfrak{L}$ 35'45	2°22'47				
max. Earth dist.	-4850 Sep 10 j 14:37	11° $\mathfrak{L}$ 32'39	11.24141 AU	conjunction	-4844 Nov 14 j 14:55	18° $\mathfrak{L}$ 07'04	1°24'28
morning rise	-4850 Sep 27 j 10:13	13° $\mathfrak{L}$ 28'27		minimum elong	-4844 Nov 14 j 14:58	18° $\mathfrak{L}$ 07'05	1°24'24
	-4850 Oct 11 j 06:17	15° $\mathfrak{L}$		max. Earth dist.	-4844 Nov 13 j 22:33	18° $\mathfrak{L}$ 02'09	10.89192 AU
retrograde	-4849 Jan 04 j 10:11	20° $\mathfrak{L}$ 14'04		morning rise	-4844 Dec 01 j 06:59	20° $\mathfrak{L}$ 06'23	
opposition	-4849 Mar 15 j 18:02	16° $\mathfrak{L}$ 58'58	2°56'08	retrograde	-4843 Mar 14 j 19:32	27° $\mathfrak{L}$ 26'40	
min. Earth dist.	-4849 Mar 16 j 04:35	16° $\mathfrak{L}$ 57'02	9.25324 AU	opposition	-4843 May 24 j 17:36	24° $\mathfrak{L}$ 04'46	1°27'56
	-4849 Apr 13 j 23:23	15° $\mathfrak{R}$ $\mathfrak{L}$		min. Earth dist.	-4843 May 25 j 07:18	24° $\mathfrak{L}$ 02'12	8.82439 AU
direct	-4849 May 26 j 13:26	13° $\mathfrak{L}$ 40'08		direct	-4843 Aug 02 j 05:51	20° $\mathfrak{L}$ 45'29	
	-4849 Jul 07 j 04:09	15° $\mathfrak{L}$		evening set	-4843 Nov 09 j 18:56	27° $\mathfrak{L}$ 54'57	
evening set	-4849 Sep 05 j 14:02	20° $\mathfrak{L}$ 35'32					
conjunction	-4849 Sep 21 j 23:29	22° $\mathfrak{L}$ 28'20	2°25'45	conjunction	-4843 Nov 26 j 11:46	29° $\mathfrak{L}$ 56'05	0°58'23
minimum elong	-4849 Sep 21 j 23:29	22° $\mathfrak{L}$ 28'20	2°25'55	minimum elong	-4843 Nov 26 j 11:48	29° $\mathfrak{L}$ 56'06	0°58'16
max. Earth dist.	-4849 Sep 21 j 10:03	22° $\mathfrak{L}$ 24'27	11.25301 AU	max. Earth dist.	-4843 Nov 25 j 20:13	29° $\mathfrak{L}$ 51'21	10.75376 AU
morning rise	-4849 Oct 08 j 07:06	24° $\mathfrak{L}$ 20'40			-4843 Nov 27 j 00:38	0° $\mathfrak{M}$	
	-4849 Dec 09 j 03:07	0° $\mathfrak{M}$		morning rise	-4843 Dec 13 j 08:00	1° $\mathfrak{M}$ 58'22	
retrograde	-4848 Jan 15 j 19:53	1° $\mathfrak{M}$ 07'58		retrograde	-4842 Mar 27 j 19:34	9° $\mathfrak{M}$ 29'40	
	-4848 Feb 23 j 12:33	30° $\mathfrak{R}$ $\mathfrak{L}$		opposition	-4842 Jun 06 j 12:16	6° $\mathfrak{M}$ 05'59	0°53'49
opposition	-4848 Mar 26 j 10:12	27° $\mathfrak{L}$ 52'29	2°56'49	min. Earth dist.	-4842 Jun 07 j 00:33	6° $\mathfrak{M}$ 03'39	8.67904 AU
min. Earth dist.	-4848 Mar 26 j 22:22	27° $\mathfrak{L}$ 50'16	9.24977 AU	direct	-4842 Aug 14 j 07:18	2° $\mathfrak{M}$ 45'50	
direct	-4848 Jun 06 j 03:36	24° $\mathfrak{L}$ 34'12		evening set	-4842 Nov 21 j 22:22	10° $\mathfrak{M}$ 03'05	
	-4848 Sep 02 j 05:27	0° $\mathfrak{M}$					
evening set	-4848 Sep 15 j 12:29	1° $\mathfrak{M}$ 28'13		conjunction	-4842 Dec 08 j 18:53	12° $\mathfrak{M}$ 07'16	0°29'00
conjunction	-4848 Oct 01 j 20:53	3° $\mathfrak{M}$ 21'01	2°23'40	minimum elong	-4842 Dec 08 j 18:54	12° $\mathfrak{M}$ 07'16	0°28'50
minimum elong	-4848 Oct 01 j 20:54	3° $\mathfrak{M}$ 21'02	2°23'47	max. Earth dist.	-4842 Dec 08 j 04:17	12° $\mathfrak{M}$ 02'45	10.60376 AU
max. Earth dist.	-4848 Oct 01 j 06:22	3° $\mathfrak{M}$ 16'49	11.23459 AU	morning rise	-4842 Dec 25 j 19:47	14° $\mathfrak{M}$ 12'51	
morning rise	-4848 Oct 18 j 04:05	5° $\mathfrak{M}$ 13'34			-4841 Jan 01 j 09:01	15° $\mathfrak{M}$	
retrograde	-4847 Jan 26 j 08:01	12° $\mathfrak{M}$ 04'16		retrograde	-4841 Apr 10 j 05:23	21° $\mathfrak{M}$ 56'13	
opposition	-4847 Apr 07 j 03:57	8° $\mathfrak{M}$ 48'02	2°51'12	opposition	-4841 Jun 19 j 14:45	18° $\mathfrak{M}$ 30'43	0°16'01
min. Earth dist.	-4847 Apr 07 j 17:09	8° $\mathfrak{M}$ 45'38	9.21644 AU	min. Earth dist.	-4841 Jun 20 j 01:32	18° $\mathfrak{M}$ 28'38	8.52513 AU
direct	-4847 Jun 17 j 14:03	5° $\mathfrak{M}$ 30'03		direct	-4841 Aug 26 j 18:53	15° $\mathfrak{M}$ 09'31	
evening set	-4847 Sep 26 j 11:05	12° $\mathfrak{M}$ 24'08		desc. node	-4841 Nov 19 j 23:27	20° $\mathfrak{M}$ 51'18	
				evening set	-4841 Dec 04 j 13:13	22° $\mathfrak{M}$ 36'00	
conjunction	-4847 Oct 12 j 19:20	14° $\mathfrak{M}$ 17'30	2°16'20	conjunction	-4841 Dec 21 j 13:53	24° $\mathfrak{M}$ 43'30	0°-2'-44
minimum elong	-4847 Oct 12 j 19:23	14° $\mathfrak{M}$ 17'30	2°16'26	minimum elong	-4841 Dec 21 j 13:53	24° $\mathfrak{M}$ 43'30	0°02'57
max. Earth dist.	-4847 Oct 12 j 03:16	14° $\mathfrak{M}$ 12'49	11.18717 AU	behind sun begin	-4841 Dec 21 j 06:48	24° $\mathfrak{M}$ 41'17	
morning rise	-4847 Oct 29 j 03:20	16° $\mathfrak{M}$ 10'54		behind sun end	-4841 Dec 21 j 20:58	24° $\mathfrak{M}$ 45'42	
retrograde	-4846 Feb 07 j 01:02	23° $\mathfrak{M}$ 06'36		max. Earth dist.	-4841 Dec 21 j 01:51	24° $\mathfrak{M}$ 39'44	10.44834 AU
opposition	-4846 Apr 19 j 00:27	19° $\mathfrak{M}$ 49'19	2°39'17	morning rise	-4840 Jan 07 j 19:33	26° $\mathfrak{M}$ 52'36	
min. Earth dist.	-4846 Apr 19 j 15:12	19° $\mathfrak{M}$ 46'37	9.15470 AU		-4840 Feb 03 j 14:13	0° $\mathfrak{X}$	
direct	-4846 Jun 29 j 01:29	16° $\mathfrak{M}$ 31'21		retrograde	-4840 Apr 23 j 02:46	4° $\mathfrak{X}$ 48'41	
evening set	-4846 Oct 07 j 11:29	23° $\mathfrak{M}$ 26'58		opposition	-4840 Jul 02 j 01:49	1° $\mathfrak{X}$ 21'26	0°-23'-59
				min. Earth dist.	-4840 Jul 02 j 10:11	1° $\mathfrak{X}$ 19'47	8.36974 AU
					-4840 Jul 19 j 20:36	30° $\mathfrak{R}$ $\mathfrak{M}$	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 6

Attention, astronomical year style is used: The year -4840 in astronomical counting style is the year 4841 BCE in historical counting style.

direct	-4840 Sep 07 j 14:40	27° $\text{M}$ 59'04			-4834 Jul 05 j 13:24	0° $\text{H}$	
	-4840 Oct 25 j 10:34	0° $\text{Z}$		retrograde	-4834 Jul 21 j 01:54	0° $\text{H}$ 13'32	
evening set	-4840 Dec 16 j 17:00	5° $\text{Z}$ 35'54			-4834 Aug 05 j 12:37	30° $\text{R}$ $\approx$	
				opposition	-4834 Sep 25 j 18:30	26° $\approx$ 42'03	-2°-59'-27
conjunction	-4839 Jan 02 j 22:04	7° $\text{Z}$ 46'50	0°-35'-12	min. Earth dist.	-4834 Sep 25 j 07:09	26° $\approx$ 44'26	7.84706 AU
minimum elong	-4839 Jan 02 j 22:03	7° $\text{Z}$ 46'49	0°35'26	direct	-4834 Nov 30 j 15:06	23° $\approx$ 12'42	
max. Earth dist.	-4839 Jan 02 j 13:59	7° $\text{Z}$ 44'15	10.29490 AU		-4833 Mar 02 j 09:36	0° $\text{H}$	
morning rise	-4839 Jan 20 j 08:23	9° $\text{Z}$ 59'30		evening set	-4833 Mar 15 j 11:54	1° $\text{H}$ 40'29	
retrograde	-4839 May 07 j 11:02	18° $\text{Z}$ 08'18					
opposition	-4839 Jul 15 j 21:21	14° $\text{Z}$ 39'26	-1°-4'-14	conjunction	-4833 Apr 02 j 13:38	4° $\text{H}$ 03'57	-2°-20'-51
min. Earth dist.	-4839 Jul 16 j 02:14	14° $\text{Z}$ 38'27	8.22070 AU	minimum elong	-4833 Apr 02 j 13:40	4° $\text{H}$ 03'58	2°20'59
direct	-4839 Sep 20 j 19:36	11° $\text{Z}$ 15'48		max. Earth dist.	-4833 Apr 03 j 06:08	4° $\text{H}$ 09'27	9.85798 AU
evening set	-4839 Dec 30 j 11:03	19° $\text{Z}$ 03'49		morning rise	-4833 Apr 20 j 16:54	6° $\text{H}$ 27'50	
				retrograde	-4833 Aug 05 j 01:11	15° $\text{H}$ 01'00	
conjunction	-4838 Jan 16 j 20:26	21° $\text{Z}$ 18'07	-1°-6'-48	opposition	-4833 Oct 10 j 11:50	11° $\text{H}$ 30'20	-2°-50'-59
minimum elong	-4838 Jan 16 j 20:23	21° $\text{Z}$ 18'06	1°07'03	min. Earth dist.	-4833 Oct 09 j 22:43	11° $\text{H}$ 33'05	7.88291 AU
max. Earth dist.	-4838 Jan 16 j 16:43	21° $\text{Z}$ 16'54	10.15160 AU	direct	-4833 Dec 15 j 17:21	8° $\text{H}$ 00'27	
morning rise	-4838 Feb 03 j 11:02	23° $\text{Z}$ 34'10		evening set	-4832 Mar 30 j 05:37	16° $\text{H}$ 27'22	
	-4838 Apr 04 j 14:44	0° $\text{Z}$					
retrograde	-4838 May 22 j 04:18	1° $\text{Z}$ 54'47		conjunction	-4832 Apr 17 j 08:54	18° $\text{H}$ 50'13	-2°-9'-43
	-4838 Jul 09 j 14:52	30° $\text{R}$ $\text{Z}$		minimum elong	-4832 Apr 17 j 08:58	18° $\text{H}$ 50'15	2°09'47
opposition	-4838 Jul 30 j 00:49	28° $\text{Z}$ 24'34	-1°-42'-18	max. Earth dist.	-4832 Apr 18 j 03:13	18° $\text{H}$ 56'16	9.91317 AU
min. Earth dist.	-4838 Jul 30 j 01:47	28° $\text{Z}$ 24'22	8.08639 AU	morning rise	-4832 May 05 j 12:15	21° $\text{H}$ 13'00	
direct	-4838 Oct 04 j 11:01	24° $\text{Z}$ 59'37		retrograde	-4832 Aug 18 j 15:51	29° $\text{H}$ 36'35	
	-4838 Dec 20 j 11:27	0° $\text{Z}$		min. Earth dist.	-4832 Oct 23 j 10:02	26° $\text{H}$ 10'05	7.95516 AU
evening set	-4837 Jan 13 j 19:18	2° $\text{Z}$ 58'57		opposition	-4832 Oct 24 j 00:11	26° $\text{H}$ 07'08	-2°-31'-29
				direct	-4832 Dec 29 j 18:01	22° $\text{H}$ 37'02	
conjunction	-4837 Jan 31 j 08:42	5° $\text{Z}$ 16'21	-1°-35'-26		-4831 Apr 06 j 21:01	0° $\text{Y}$	
minimum elong	-4837 Jan 31 j 08:39	5° $\text{Z}$ 16'20	1°35'42	evening set	-4831 Apr 14 j 17:54	0° $\text{Y}$ 59'46	
max. Earth dist.	-4837 Jan 31 j 09:31	5° $\text{Z}$ 16'37	10.02706 AU				
morning rise	-4837 Feb 18 j 03:09	7° $\text{Z}$ 35'26		conjunction	-4831 May 02 j 21:43	3° $\text{Y}$ 21'10	-1°-50'-28
retrograde	-4837 Jun 06 j 05:35	16° $\text{Z}$ 05'59		minimum elong	-4831 May 02 j 21:47	3° $\text{Y}$ 21'11	1°50'29
opposition	-4837 Aug 13 j 11:32	12° $\text{Z}$ 34'45	-2°-15'-24	max. Earth dist.	-4831 May 03 j 16:27	3° $\text{Y}$ 27'17	10.00207 AU
min. Earth dist.	-4837 Aug 13 j 08:33	12° $\text{Z}$ 35'22	7.97524 AU	morning rise	-4831 May 21 j 00:02	5° $\text{Y}$ 42'00	
direct	-4837 Oct 18 j 11:42	9° $\text{Z}$ 08'31		retrograde	-4831 Sep 01 j 21:16	13° $\text{Y}$ 53'32	
evening set	-4836 Jan 28 j 16:34	17° $\text{Z}$ 18'25		opposition	-4831 Nov 07 j 05:56	10° $\text{Y}$ 25'37	-2°-2'-53
				min. Earth dist.	-4831 Nov 06 j 15:42	10° $\text{Y}$ 28'34	8.05736 AU
conjunction	-4836 Feb 15 j 09:41	19° $\text{Z}$ 38'26	-1°-58'-54	direct	-4830 Jan 13 j 14:09	6° $\text{Y}$ 55'42	
minimum elong	-4836 Feb 15 j 09:38	19° $\text{Z}$ 38'25	1°59'09	evening set	-4830 Apr 29 j 21:26	15° $\text{Y}$ 11'40	
max. Earth dist.	-4836 Feb 15 j 14:57	19° $\text{Z}$ 40'11	9.92960 AU				
morning rise	-4836 Mar 04 j 07:27	21° $\text{Z}$ 59'59		conjunction	-4830 May 18 j 00:29	17° $\text{Y}$ 30'53	-1°-24'-52
	-4836 May 25 j 05:44	0° $\approx$		minimum elong	-4830 May 18 j 00:33	17° $\text{Y}$ 30'54	1°24'49
retrograde	-4836 Jun 20 j 12:03	0° $\approx$ 37'29		max. Earth dist.	-4830 May 18 j 18:34	17° $\text{Y}$ 36'42	10.11737 AU
	-4836 Jul 16 j 19:15	30° $\text{R}$ $\text{Z}$		morning rise	-4830 Jun 05 j 00:39	19° $\text{Y}$ 49'08	
opposition	-4836 Aug 27 j 03:41	27° $\text{Z}$ 05'41	-2°-40'-44	retrograde	-4830 Sep 15 j 17:05	27° $\text{Y}$ 47'26	
min. Earth dist.	-4836 Aug 26 j 21:21	27° $\text{Z}$ 07'00	7.89485 AU	opposition	-4830 Nov 21 j 03:56	24° $\text{Y}$ 21'17	-1°-27'-45
direct	-4836 Oct 31 j 21:28	23° $\text{Z}$ 38'13		min. Earth dist.	-4830 Nov 20 j 14:40	24° $\text{Y}$ 24'00	8.18243 AU
	-4835 Jan 27 j 17:51	0° $\approx$		direct	-4829 Jan 28 j 03:25	20° $\text{Y}$ 51'55	
evening set	-4835 Feb 12 j 01:00	1° $\approx$ 57'00		evening set	-4829 May 14 j 14:15	28° $\text{Y}$ 59'18	
					-4829 May 22 j 16:02	0° $\text{Z}$	
conjunction	-4835 Mar 01 j 21:29	4° $\approx$ 19'00	-2°-15'-11				
minimum elong	-4835 Mar 01 j 21:27	4° $\approx$ 18'59	2°15'25	conjunction	-4829 Jun 01 j 15:15	1° $\text{Z}$ 15'46	0°-54'-59
max. Earth dist.	-4835 Mar 02 j 07:00	4° $\approx$ 22'10	9.86625 AU	minimum elong	-4829 Jun 01 j 15:18	1° $\text{Z}$ 15'47	0°54'53
morning rise	-4835 Mar 19 j 21:53	6° $\approx$ 42'15		max. Earth dist.	-4829 Jun 02 j 07:36	1° $\text{Z}$ 20'57	10.25210 AU
	-4835 Jun 15 j 14:19	15° $\approx$		morning rise	-4829 Jun 19 j 12:14	3° $\text{Z}$ 30'57	
retrograde	-4835 Jul 05 j 20:01	15° $\approx$ 22'43		retrograde	-4829 Sep 29 j 01:21	11° $\text{Z}$ 15'44	
	-4835 Jul 26 j 00:32	15° $\text{R}$ $\approx$		opposition	-4829 Dec 04 j 17:30	7° $\text{Z}$ 51'28	0°-48'-50
opposition	-4835 Sep 10 j 22:48	11° $\approx$ 50'51	-2°-55'-55	min. Earth dist.	-4829 Dec 04 j 06:06	7° $\text{Z}$ 53'46	8.32370 AU
min. Earth dist.	-4835 Sep 10 j 13:47	11° $\approx$ 52'44	7.85105 AU	direct	-4828 Feb 11 j 10:20	4° $\text{Z}$ 22'53	
direct	-4835 Nov 15 j 15:08	8° $\approx$ 22'18		evening set	-4828 May 27 j 19:04	12° $\text{Z}$ 20'35	
	-4834 Feb 13 j 17:46	15° $\approx$					
evening set	-4834 Feb 27 j 16:58	16° $\approx$ 47'19		conjunction	-4828 Jun 14 j 16:45	14° $\text{Z}$ 33'51	0°-22'-58
				minimum elong	-4828 Jun 14 j 16:46	14° $\text{Z}$ 33'52	0°22'49
conjunction	-4834 Mar 17 j 16:22	19° $\approx$ 10'29	-2°-22'-45	max. Earth dist.	-4828 Jun 15 j 06:17	14° $\text{Z}$ 38'04	10.39914 AU
minimum elong	-4834 Mar 17 j 16:22	19° $\approx$ 10'29	2°22'56		-4828 Jun 18 j 04:28	15° $\text{Z}$	
max. Earth dist.	-4834 Mar 18 j 05:45	19° $\approx$ 14'58	9.84177 AU	morning rise	-4828 Jul 02 j 09:42	16° $\text{Z}$ 45'39	
morning rise	-4834 Apr 04 j 18:37	21° $\approx$ 34'32		retrograde	-4828 Oct 10 j 21:37	24° $\text{Z}$ 17'28	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 7

Attention, astronomical year style is used: The year -4828 in astronomical counting style is the year 4829 BCE in historical counting style.

opposition	-4828 Dec 16 j 22:43	20° $\text{♄}$ 55'03	0°-8'-42	retrograde	-4822 Dec 19 j 14:33	4° $\text{♄}$ 46'13	
min. Earth dist.	-4828 Dec 16 j 13:45	20° $\text{♄}$ 56'50	8.47380 AU	opposition	-4821 Feb 27 j 08:52	1° $\text{♄}$ 30'27	2°44'16
direct	-4827 Feb 24 j 08:56	17° $\text{♄}$ 27'29		min. Earth dist.	-4821 Feb 27 j 14:47	1° $\text{♄}$ 29'22	9.18394 AU
asc. node	-4827 Mar 09 j 18:24	17° $\text{♄}$ 36'42			-4821 Mar 20 j 15:19	30° $\text{♄}$ 09'53	
evening set	-4827 Jun 10 j 11:18	25° $\text{♄}$ 14'59		direct	-4821 May 10 j 06:59	28° $\text{♄}$ 09'53	
					-4821 Jun 28 j 09:56	0° $\text{♄}$	
conjunction	-4827 Jun 28 j 04:37	27° $\text{♄}$ 24'51	0°09'20	evening set	-4821 Aug 21 j 02:39	5° $\text{♄}$ 10'23	
minimum elong	-4827 Jun 28 j 04:36	27° $\text{♄}$ 24'51	0°09'33				
behind sun begin	-4827 Jun 27 j 22:38	27° $\text{♄}$ 23'02		conjunction	-4821 Sep 06 j 15:47	7° $\text{♄}$ 04'31	2°19'38
behind sun end	-4827 Jun 28 j 10:33	27° $\text{♄}$ 26'39		minimum elong	-4821 Sep 06 j 15:46	7° $\text{♄}$ 04'30	2°19'51
max. Earth dist.	-4827 Jun 28 j 14:24	27° $\text{♄}$ 27'51	10.55088 AU	max. Earth dist.	-4821 Sep 06 j 07:23	7° $\text{♄}$ 02'05	11.20671 AU
morning rise	-4827 Jul 15 j 16:51	29° $\text{♄}$ 33'08		morning rise	-4821 Sep 23 j 01:43	8° $\text{♄}$ 57'46	
	-4827 Jul 19 j 10:39	0° $\text{♄}$			-4821 Nov 30 j 23:41	15° $\text{♄}$	
retrograde	-4827 Oct 23 j 08:41	6° $\text{♄}$ 53'09		retrograde	-4821 Dec 30 j 21:36	15° $\text{♄}$ 43'46	
opposition	-4827 Dec 29 j 19:45	3° $\text{♄}$ 32'27	0°30'24		-4820 Jan 30 j 09:07	15° $\text{♄}$	
min. Earth dist.	-4827 Dec 29 j 12:50	3° $\text{♄}$ 33'47	8.62520 AU	opposition	-4820 Mar 10 j 01:07	12° $\text{♄}$ 28'08	2°54'01
direct	-4826 Mar 09 j 21:51	0° $\text{♄}$ 06'02		min. Earth dist.	-4820 Mar 10 j 08:51	12° $\text{♄}$ 26'44	9.22646 AU
evening set	-4826 Jun 23 j 15:00	7° $\text{♄}$ 43'26		direct	-4820 May 20 j 22:44	9° $\text{♄}$ 08'29	
					-4820 Aug 21 j 09:12	15° $\text{♄}$	
conjunction	-4826 Jul 11 j 03:22	9° $\text{♄}$ 49'53	0°40'10	evening set	-4820 Aug 31 j 04:29	16° $\text{♄}$ 05'26	
minimum elong	-4826 Jul 11 j 03:21	9° $\text{♄}$ 49'53	0°40'24				
max. Earth dist.	-4826 Jul 11 j 09:47	9° $\text{♄}$ 51'50	10.70000 AU	conjunction	-4820 Sep 16 j 15:01	17° $\text{♄}$ 58'37	2°25'07
morning rise	-4826 Jul 28 j 10:32	11° $\text{♄}$ 54'44		minimum elong	-4820 Sep 16 j 15:00	17° $\text{♄}$ 58'37	2°25'17
retrograde	-4826 Nov 04 j 11:09	19° $\text{♄}$ 04'30		max. Earth dist.	-4820 Sep 16 j 04:35	17° $\text{♄}$ 55'36	11.23494 AU
opposition	-4825 Jan 11 j 09:11	15° $\text{♄}$ 45'18	1°06'46	morning rise	-4820 Oct 02 j 23:00	19° $\text{♄}$ 51'11	
min. Earth dist.	-4825 Jan 11 j 04:14	15° $\text{♄}$ 46'15	8.77077 AU	retrograde	-4819 Jan 10 j 06:30	26° $\text{♄}$ 37'53	
direct	-4825 Mar 23 j 01:06	12° $\text{♄}$ 20'08		opposition	-4819 Mar 21 j 17:16	23° $\text{♄}$ 22'09	2°57'28
evening set	-4825 Jul 06 j 06:50	19° $\text{♄}$ 47'59		min. Earth dist.	-4819 Mar 22 j 03:27	23° $\text{♄}$ 20'17	9.24069 AU
				direct	-4819 Jun 01 j 11:56	20° $\text{♄}$ 03'14	
conjunction	-4825 Jul 23 j 14:05	21° $\text{♄}$ 51'12	1°08'22	evening set	-4819 Sep 11 j 03:38	26° $\text{♄}$ 58'00	
minimum elong	-4825 Jul 23 j 14:02	21° $\text{♄}$ 51'11	1°08'37				
max. Earth dist.	-4825 Jul 23 j 17:47	21° $\text{♄}$ 52'18	10.83976 AU	conjunction	-4819 Sep 27 j 12:23	28° $\text{♄}$ 50'50	2°25'19
morning rise	-4825 Aug 09 j 16:00	23° $\text{♄}$ 52'51		minimum elong	-4819 Sep 27 j 12:24	28° $\text{♄}$ 50'50	2°25'27
	-4825 Oct 14 j 20:44	0° $\text{♄}$		max. Earth dist.	-4819 Sep 26 j 23:16	28° $\text{♄}$ 47'02	11.23479 AU
retrograde	-4825 Nov 16 j 07:06	0° $\text{♄}$ 54'08			-4819 Oct 07 j 12:00	0° $\text{♄}$	
	-4825 Dec 19 j 07:20	30° $\text{♄}$		morning rise	-4819 Oct 13 j 19:43	0° $\text{♄}$ 43'19	
opposition	-4824 Jan 23 j 16:04	27° $\text{♄}$ 36'12	1°39'06	retrograde	-4818 Jan 21 j 15:29	7° $\text{♄}$ 32'28	
min. Earth dist.	-4824 Jan 23 j 13:37	27° $\text{♄}$ 36'40	8.90411 AU	opposition	-4818 Apr 02 j 10:17	4° $\text{♄}$ 16'17	2°54'34
direct	-4824 Apr 03 j 20:03	24° $\text{♄}$ 12'16		min. Earth dist.	-4818 Apr 02 j 22:37	4° $\text{♄}$ 14'02	9.22619 AU
	-4824 Jul 04 j 00:05	0° $\text{♄}$		direct	-4818 Jun 12 j 22:49	0° $\text{♄}$ 57'54	
evening set	-4824 Jul 17 j 12:11	1° $\text{♄}$ 31'30		evening set	-4818 Sep 22 j 01:59	7° $\text{♄}$ 51'57	
conjunction	-4824 Aug 03 j 14:12	3° $\text{♄}$ 31'45	1°32'59	conjunction	-4818 Oct 08 j 10:07	9° $\text{♄}$ 45'02	2°20'15
minimum elong	-4824 Aug 03 j 14:09	3° $\text{♄}$ 31'44	1°33'15	minimum elong	-4818 Oct 08 j 10:09	9° $\text{♄}$ 45'02	2°20'21
max. Earth dist.	-4824 Aug 03 j 15:04	3° $\text{♄}$ 32'00	10.96431 AU	max. Earth dist.	-4818 Oct 07 j 19:21	9° $\text{♄}$ 40'45	11.20622 AU
morning rise	-4824 Aug 20 j 11:03	5° $\text{♄}$ 30'32		morning rise	-4818 Oct 24 j 17:49	11° $\text{♄}$ 38'02	
retrograde	-4824 Nov 26 j 21:55	12° $\text{♄}$ 25'12		retrograde	-4817 Feb 02 j 05:42	18° $\text{♄}$ 31'19	
opposition	-4823 Feb 03 j 17:31	9° $\text{♄}$ 08'17	2°06'30	opposition	-4817 Apr 14 j 05:08	15° $\text{♄}$ 14'23	2°45'20
min. Earth dist.	-4823 Feb 03 j 18:31	9° $\text{♄}$ 08'06	9.01998 AU	min. Earth dist.	-4817 Apr 14 j 18:16	15° $\text{♄}$ 12'00	9.18330 AU
direct	-4823 Apr 16 j 05:15	5° $\text{♄}$ 45'34		direct	-4817 Jun 24 j 11:13	11° $\text{♄}$ 56'21	
evening set	-4823 Jul 29 j 08:18	12° $\text{♄}$ 57'17		evening set	-4817 Oct 03 j 01:19	18° $\text{♄}$ 51'08	
conjunction	-4823 Aug 15 j 05:16	14° $\text{♄}$ 54'58	1°53'21	conjunction	-4817 Oct 19 j 09:58	20° $\text{♄}$ 45'03	2°09'58
minimum elong	-4823 Aug 15 j 05:14	14° $\text{♄}$ 54'58	1°53'36	minimum elong	-4817 Oct 19 j 10:01	20° $\text{♄}$ 45'04	2°10'03
max. Earth dist.	-4823 Aug 15 j 02:14	14° $\text{♄}$ 54'05	11.06917 AU	max. Earth dist.	-4817 Oct 18 j 19:05	20° $\text{♄}$ 40'42	11.14995 AU
morning rise	-4823 Aug 31 j 21:45	16° $\text{♄}$ 51'24		morning rise	-4817 Nov 04 j 18:52	22° $\text{♄}$ 39'09	
retrograde	-4823 Dec 08 j 06:13	23° $\text{♄}$ 41'18		retrograde	-4816 Feb 14 j 02:37	29° $\text{♄}$ 38'11	
opposition	-4822 Feb 15 j 14:47	20° $\text{♄}$ 25'07	2°28'21	opposition	-4816 Apr 25 j 03:32	26° $\text{♄}$ 20'16	2°29'53
min. Earth dist.	-4822 Feb 15 j 18:43	20° $\text{♄}$ 24'24	9.11435 AU	min. Earth dist.	-4816 Apr 25 j 16:46	26° $\text{♄}$ 17'51	9.11326 AU
direct	-4822 Apr 28 j 08:08	17° $\text{♄}$ 03'31		direct	-4816 Jul 04 j 23:22	23° $\text{♄}$ 02'22	
evening set	-4822 Aug 09 j 20:29	24° $\text{♄}$ 08'58		evening set	-4816 Oct 13 j 03:28	29° $\text{♄}$ 59'18	
					-4816 Oct 13 j 05:52	0° $\text{♄}$	
conjunction	-4822 Aug 26 j 13:05	26° $\text{♄}$ 04'35	2°08'59	conjunction	-4816 Oct 29 j 13:26	1° $\text{♄}$ 54'38	1°54'40
minimum elong	-4822 Aug 26 j 13:02	26° $\text{♄}$ 04'35	2°09'14	minimum elong	-4816 Oct 29 j 13:29	1° $\text{♄}$ 54'39	1°54'41
max. Earth dist.	-4822 Aug 26 j 06:39	26° $\text{♄}$ 02'43	11.15087 AU	max. Earth dist.	-4816 Oct 28 j 22:00	1° $\text{♄}$ 50'05	11.06774 AU
morning rise	-4822 Sep 12 j 01:57	27° $\text{♄}$ 59'09		morning rise	-4816 Nov 15 j 00:36	3° $\text{♄}$ 50'25	
	-4822 Sep 30 j 10:06	0° $\text{♄}$					

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 8

Attention, astronomical year style is used: The year -4815 in astronomical counting style is the year 4816 BCE in historical counting style.

retrograde	-4815 Feb 25 j 04:41	10°♄56'48		minimum elong	-4809 Jan 10 j 22:48	15°♄25'56	0°53'13
opposition	-4815 May 07 j 06:35	7°♄37'38	2°08'25	max. Earth dist.	-4809 Jan 10 j 15:21	15°♄23'32	10.23938 AU
min. Earth dist.	-4815 May 07 j 20:09	7°♄35'08	9.01841 AU	morning rise	-4809 Jan 28 j 11:24	17°♄40'07	
direct	-4815 Jul 16 j 13:25	4°♄19'35		retrograde	-4809 May 15 j 22:26	25°♄54'13	
evening set	-4815 Oct 24 j 10:37	11°♄20'16		opposition	-4809 Jul 24 j 01:12	22°♄25'11	-1°-25'-41
				min. Earth dist.	-4809 Jul 24 j 05:04	22°♄24'24	8.16794 AU
conjunction	-4815 Nov 09 j 22:41	13°♄17'30	1°34'36	direct	-4809 Sep 28 j 16:44	19°♄01'20	
minimum elong	-4815 Nov 09 j 22:44	13°♄17'31	1°34'34	evening set	-4808 Jan 07 j 16:38	26°♄54'21	
max. Earth dist.	-4815 Nov 09 j 06:26	13°♄12'40	10.96235 AU				
morning rise	-4815 Nov 26 j 13:09	15°♄15'31		conjunction	-4808 Jan 25 j 03:53	29°♄10'01	-1°-23'-7
retrograde	-4814 Mar 09 j 14:58	22°♄30'42		minimum elong	-4808 Jan 25 j 03:49	29°♄10'00	1°23'23
opposition	-4814 May 19 j 15:06	19°♄10'06	1°41'20	max. Earth dist.	-4808 Jan 25 j 00:31	29°♄08'56	10.10200 AU
min. Earth dist.	-4814 May 20 j 04:59	19°♄07'30	8.90200 AU		-4808 Jan 31 j 13:22	0°♄	
direct	-4814 Jul 28 j 08:28	15°♄51'37		morning rise	-4808 Feb 11 j 20:33	1°♄27'26	
evening set	-4814 Nov 05 j 00:23	22°♄57'34		retrograde	-4808 May 29 j 18:38	9°♄52'31	
				opposition	-4808 Aug 06 j 07:59	6°♄22'09	-2°-1'-16
conjunction	-4814 Nov 21 j 15:28	24°♄57'13	1°10'14	min. Earth dist.	-4808 Aug 06 j 08:33	6°♄22'02	8.04150 AU
minimum elong	-4814 Nov 21 j 15:31	24°♄57'14	1°10'08	direct	-4808 Oct 11 j 13:01	2°♄56'49	
max. Earth dist.	-4814 Nov 21 j 00:03	24°♄52'34	10.83722 AU	evening set	-4807 Jan 21 j 07:05	11°♄00'53	
morning rise	-4814 Dec 08 j 09:49	26°♄57'55					
	-4813 Jan 04 j 13:47	0°♄		conjunction	-4807 Feb 07 j 22:22	13°♄19'28	-1°-49'-7
retrograde	-4813 Mar 22 j 09:27	4°♄23'18		minimum elong	-4807 Feb 07 j 22:19	13°♄19'26	1°49'23
opposition	-4813 Jun 01 j 06:09	1°♄01'03	1°09'13	max. Earth dist.	-4807 Feb 08 j 00:01	13°♄20'00	9.98706 AU
min. Earth dist.	-4813 Jun 01 j 18:59	0°♄58'38	8.76796 AU	morning rise	-4807 Feb 25 j 18:36	15°♄39'39	
	-4813 Jun 14 j 23:07	30°♄		retrograde	-4807 Jun 13 j 21:42	24°♄13'16	
direct	-4813 Aug 09 j 08:51	27°♄41'55		opposition	-4807 Aug 20 j 20:53	20°♄41'55	-2°-30'-23
	-4813 Oct 01 j 02:13	0°♄		min. Earth dist.	-4807 Aug 20 j 17:43	20°♄42'34	7.94164 AU
evening set	-4813 Nov 16 j 22:43	4°♄54'39		direct	-4807 Oct 25 j 18:27	17°♄15'07	
				evening set	-4806 Feb 05 j 09:43	25°♄29'03	
conjunction	-4813 Dec 03 j 17:27	6°♄57'08	0°42'12				
minimum elong	-4813 Dec 03 j 17:29	6°♄57'09	0°42'04	conjunction	-4806 Feb 23 j 04:39	27°♄49'58	-2°-8'-51
max. Earth dist.	-4813 Dec 03 j 03:54	6°♄52'59	10.69657 AU	minimum elong	-4806 Feb 23 j 04:36	27°♄49'57	2°09'06
morning rise	-4813 Dec 20 j 16:01	9°♄00'53		max. Earth dist.	-4806 Feb 23 j 11:21	27°♄52'11	9.90229 AU
	-4812 Feb 18 j 14:47	15°♄			-4806 Mar 11 j 14:04	0°♄	
retrograde	-4812 Apr 03 j 14:58	16°♄37'41		morning rise	-4806 Mar 13 j 03:42	0°♄12'16	
	-4812 May 19 j 18:01	15°♄		retrograde	-4806 Jun 29 j 04:01	8°♄50'56	
opposition	-4812 Jun 13 j 04:35	13°♄13'39	0°32'57	opposition	-4806 Sep 04 j 13:50	5°♄19'02	-2°-50'-27
min. Earth dist.	-4812 Jun 13 j 15:26	13°♄11'35	8.62100 AU	min. Earth dist.	-4806 Sep 04 j 06:53	5°♄20'29	7.87509 AU
direct	-4812 Aug 20 j 16:55	9°♄53'38		direct	-4806 Nov 09 j 07:57	1°♄50'54	
	-4812 Nov 09 j 04:28	15°♄		evening set	-4805 Feb 20 j 21:28	10°♄12'32	
evening set	-4812 Nov 28 j 07:44	17°♄14'39					
				conjunction	-4805 Mar 10 j 19:36	12°♄35'06	-2°-20'-33
conjunction	-4812 Dec 15 j 06:27	19°♄20'18	0°11'29	minimum elong	-4805 Mar 10 j 19:35	12°♄35'05	2°20'45
minimum elong	-4812 Dec 15 j 06:27	19°♄20'18	0°11'18	max. Earth dist.	-4805 Mar 11 j 06:48	12°♄38'50	9.85378 AU
behind sun begin	-4812 Dec 15 j 01:13	19°♄18'41		morning rise	-4805 Mar 28 j 20:50	14°♄58'41	
behind sun end	-4812 Dec 15 j 11:41	19°♄21'54			-4805 Mar 29 j 00:52	15°♄	
max. Earth dist.	-4812 Dec 14 j 18:35	19°♄16'37	10.54548 AU	retrograde	-4805 Jul 14 j 10:28	23°♄38'16	
morning rise	-4811 Jan 01 j 09:36	21°♄27'25		opposition	-4805 Sep 19 j 08:40	20°♄06'19	-2°-59'-29
retrograde	-4811 Apr 17 j 07:54	29°♄16'29		min. Earth dist.	-4805 Sep 18 j 22:41	20°♄08'25	7.84657 AU
desc. node	-4811 Apr 29 j 05:01	29°♄09'20		direct	-4805 Nov 24 j 04:03	16°♄37'03	
opposition	-4811 Jun 26 j 11:02	25°♄50'41	0°-6'-9	evening set	-4804 Mar 07 j 14:29	25°♄03'22	
min. Earth dist.	-4811 Jun 26 j 19:40	25°♄49'00	8.46681 AU				
direct	-4811 Sep 02 j 06:40	22°♄29'33		conjunction	-4804 Mar 25 j 15:18	27°♄26'44	-2°-23'-3
evening set	-4811 Dec 11 j 05:00	0°♄00'20		minimum elong	-4804 Mar 25 j 15:20	27°♄26'44	2°23'12
	-4811 Dec 11 j 03:54	0°♄		max. Earth dist.	-4804 Mar 26 j 06:06	27°♄31'40	9.84500 AU
				morning rise	-4804 Apr 12 j 18:02	29°♄50'43	
conjunction	-4811 Dec 28 j 07:51	2°♄09'20	0°-20'-49		-4804 Apr 13 j 22:32	0°♄	
minimum elong	-4811 Dec 28 j 07:50	2°♄09'20	0°21'03	retrograde	-4804 Jul 28 j 12:56	8°♄26'48	
max. Earth dist.	-4811 Dec 27 j 21:31	2°♄06'05	10.39032 AU	opposition	-4804 Oct 03 j 02:40	4°♄55'18	-2°-56'-34
morning rise	-4810 Jan 14 j 15:50	4°♄20'01		min. Earth dist.	-4804 Oct 02 j 14:39	4°♄57'49	7.85789 AU
retrograde	-4810 May 01 j 10:52	12°♄21'46		direct	-4804 Dec 08 j 03:54	1°♄25'12	
opposition	-4810 Jul 10 j 01:59	8°♄54'17	0°-46'-26	evening set	-4803 Mar 23 j 08:44	9°♄52'44	
min. Earth dist.	-4810 Jul 10 j 08:29	8°♄53'00	8.31277 AU				
direct	-4810 Sep 15 j 05:54	5°♄31'52		conjunction	-4803 Apr 10 j 11:29	12°♄16'01	-2°-16'-8
evening set	-4810 Dec 24 j 15:48	13°♄13'32		minimum elong	-4803 Apr 10 j 11:32	12°♄16'02	2°16'13
				max. Earth dist.	-4803 Apr 11 j 04:33	12°♄21'40	9.87632 AU
conjunction	-4809 Jan 10 j 22:51	15°♄25'56	0°-52'-58	morning rise	-4803 Apr 28 j 14:48	14°♄39'26	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 9

Attention, astronomical year style is used: The year -4803 in astronomical counting style is the year 4804 BCE in historical counting style.

retrograde	-4803 Aug 12 j 08:08	23° <del>✕</del> 07'56		evening set	-4797 Jun 17 j 23:12	2° <del>Π</del> 13'30	
opposition	-4803 Oct 17 j 17:11	19° <del>✕</del> 37'23	-2°-42'-2				
min. Earth dist.	-4803 Oct 17 j 04:12	19° <del>✕</del> 40'06	7.90798 AU	conjunction	-4797 Jul 05 j 14:12	4° <del>Π</del> 21'38	0°26'01
direct	-4803 Dec 23 j 04:23	16° <del>✕</del> 06'49		minimum elong	-4797 Jul 05 j 14:11	4° <del>Π</del> 21'37	0°26'13
evening set	-4802 Apr 07 j 23:40	24° <del>✕</del> 32'02		max. Earth dist.	-4797 Jul 06 j 00:18	4° <del>Π</del> 24'42	10.62502 AU
				morning rise	-4797 Jul 22 j 23:45	6° <del>Π</del> 28'08	
conjunction	-4802 Apr 26 j 03:22	26° <del>✕</del> 54'20	-2°00'-28	retrograde	-4797 Oct 30 j 07:55	13° <del>Π</del> 42'37	
minimum elong	-4802 Apr 26 j 03:26	26° <del>✕</del> 54'22	2°00'30	opposition	-4796 Jan 05 j 23:57	10° <del>Π</del> 22'33	0°50'13
max. Earth dist.	-4802 Apr 26 j 21:21	27° <del>✕</del> 00'15	9.94519 AU	min. Earth dist.	-4796 Jan 05 j 17:38	10° <del>Π</del> 23'47	8.69941 AU
morning rise	-4802 May 14 j 06:20	29° <del>✕</del> 16'18		direct	-4796 Mar 16 j 08:23	6° <del>Π</del> 56'42	
	-4802 May 19 j 23:16	0° <del>Υ</del>		evening set	-4796 Jun 29 j 20:51	14° <del>Π</del> 29'05	
retrograde	-4802 Aug 26 j 18:31	7° <del>Υ</del> 34'04					
opposition	-4802 Nov 01 j 02:14	4° <del>Υ</del> 04'51	-2°-17'-22	conjunction	-4796 Jul 17 j 06:34	16° <del>Π</del> 33'49	0°55'37
min. Earth dist.	-4802 Oct 31 j 13:02	4° <del>Υ</del> 07'36	7.99312 AU	minimum elong	-4796 Jul 17 j 06:31	16° <del>Π</del> 33'48	0°55'51
direct	-4801 Jan 07 j 02:50	0° <del>Υ</del> 34'13		max. Earth dist.	-4796 Jul 17 j 12:33	16° <del>Π</del> 35'37	10.77328 AU
evening set	-4801 Apr 23 j 07:20	8° <del>Υ</del> 53'59		morning rise	-4796 Aug 03 j 10:58	18° <del>Π</del> 36'59	
				retrograde	-4796 Nov 10 j 06:04	25° <del>Π</del> 42'08	
conjunction	-4801 May 11 j 10:52	11° <del>Υ</del> 14'28	-1°-37'-34	opposition	-4795 Jan 17 j 10:02	22° <del>Π</del> 23'41	1°24'36
minimum elong	-4801 May 11 j 10:57	11° <del>Υ</del> 14'29	1°37'33	min. Earth dist.	-4795 Jan 17 j 06:32	22° <del>Π</del> 24'21	8.84268 AU
max. Earth dist.	-4801 May 12 j 04:31	11° <del>Υ</del> 20'11	10.04652 AU	direct	-4795 Mar 29 j 07:56	18° <del>Π</del> 59'15	
morning rise	-4801 May 29 j 12:23	13° <del>Υ</del> 34'11		evening set	-4795 Jul 12 j 07:18	26° <del>Π</del> 22'36	
retrograde	-4801 Sep 09 j 18:17	21° <del>Υ</del> 39'12					
opposition	-4801 Nov 15 j 03:58	18° <del>Υ</del> 11'37	-1°-44'-55	conjunction	-4795 Jul 29 j 11:38	28° <del>Π</del> 24'12	1°22'01
min. Earth dist.	-4801 Nov 14 j 14:52	18° <del>Υ</del> 14'19	8.10730 AU	minimum elong	-4795 Jul 29 j 11:35	28° <del>Π</del> 24'11	1°22'16
direct	-4800 Jan 21 j 20:35	14° <del>Υ</del> 41'20		max. Earth dist.	-4795 Jul 29 j 13:46	28° <del>Π</del> 24'50	10.90906 AU
evening set	-4800 May 07 j 05:23	22° <del>Υ</del> 53'17			-4795 Aug 11 j 23:39	0° <del>☾</del>	
				morning rise	-4795 Aug 15 j 10:59	0° <del>☾</del> 24'18	
conjunction	-4800 May 25 j 07:31	25° <del>Υ</del> 11'14	-1°-9'-24	retrograde	-4795 Nov 21 j 23:05	7° <del>☾</del> 22'00	
minimum elong	-4800 May 25 j 07:34	25° <del>Υ</del> 11'15	1°09'19	opposition	-4794 Jan 29 j 14:12	4° <del>☾</del> 04'51	1°54'24
max. Earth dist.	-4800 May 26 j 00:00	25° <del>Υ</del> 16'31	10.17326 AU	min. Earth dist.	-4794 Jan 29 j 12:50	4° <del>☾</del> 05'06	8.97078 AU
morning rise	-4800 Jun 12 j 06:24	27° <del>Υ</del> 28'05		direct	-4794 Apr 10 j 22:10	0° <del>☾</del> 41'50	
	-4800 Jul 03 j 06:53	0° <del>♄</del>		evening set	-4794 Jul 24 j 07:56	7° <del>☾</del> 57'07	
retrograde	-4800 Sep 22 j 06:32	5° <del>♄</del> 19'29					
opposition	-4800 Nov 27 j 21:24	1° <del>♄</del> 53'45	-1°-7'-24	conjunction	-4794 Aug 10 j 07:14	9° <del>☾</del> 55'57	1°44'27
min. Earth dist.	-4800 Nov 27 j 08:48	1° <del>♄</del> 56'19	8.24305 AU	minimum elong	-4794 Aug 10 j 07:11	9° <del>☾</del> 55'56	1°44'42
	-4800 Dec 22 j 14:10	30° <del>♅</del>		max. Earth dist.	-4794 Aug 10 j 06:35	9° <del>☾</del> 55'46	11.02702 AU
direct	-4799 Feb 04 j 07:54	28° <del>Υ</del> 24'12		morning rise	-4794 Aug 27 j 01:46	11° <del>☾</del> 53'26	
	-4799 Mar 19 j 16:31	0° <del>♄</del>		retrograde	-4794 Dec 03 j 11:31	18° <del>☾</del> 45'30	
evening set	-4799 May 21 j 15:51	6° <del>♄</del> 26'46		opposition	-4793 Feb 10 j 13:28	15° <del>☾</del> 29'21	2°18'54
				min. Earth dist.	-4793 Feb 10 j 14:39	15° <del>☾</del> 29'08	9.07873 AU
conjunction	-4799 Jun 08 j 15:19	8° <del>♄</del> 41'41	0°-38'-6	direct	-4793 Apr 23 j 04:40	12° <del>☾</del> 07'39	
minimum elong	-4799 Jun 08 j 15:21	8° <del>♄</del> 41'42	0°37'59	evening set	-4793 Aug 05 j 00:09	19° <del>☾</del> 16'02	
max. Earth dist.	-4799 Jun 09 j 06:12	8° <del>♄</del> 46'22	10.31739 AU				
morning rise	-4799 Jun 26 j 10:29	10° <del>♄</del> 55'14		conjunction	-4793 Aug 21 j 18:52	21° <del>☾</del> 12'34	2°02'20
	-4799 Aug 01 j 09:47	15° <del>♄</del>		minimum elong	-4793 Aug 21 j 18:50	21° <del>☾</del> 12'33	2°02'35
retrograde	-4799 Oct 05 j 08:05	18° <del>♄</del> 33'14		max. Earth dist.	-4793 Aug 21 j 15:26	21° <del>☾</del> 11'34	11.12261 AU
opposition	-4799 Dec 11 j 06:25	15° <del>♄</del> 09'25	0°-27'-30	morning rise	-4793 Sep 07 j 09:14	23° <del>☾</del> 07'55	
min. Earth dist.	-4799 Dec 10 j 18:53	15° <del>♄</del> 11'44	8.39230 AU	retrograde	-4793 Dec 14 j 21:52	29° <del>☾</del> 56'11	
	-4799 Dec 13 j 05:28	15° <del>♅</del>		opposition	-4792 Feb 22 j 09:20	26° <del>☾</del> 40'43	2°37'35
direct	-4798 Feb 18 j 09:51	11° <del>♄</del> 40'56		min. Earth dist.	-4792 Feb 22 j 13:54	26° <del>☾</del> 39'53	9.16236 AU
	-4798 Apr 24 j 04:11	15° <del>♄</del>		direct	-4792 May 04 j 04:21	23° <del>☾</del> 20'10	
evening set	-4798 Jun 04 j 13:41	19° <del>♄</del> 33'19			-4792 Aug 12 j 00:15	0° <del>♄</del>	
				evening set	-4792 Aug 15 j 09:34	0° <del>♄</del> 22'56	
conjunction	-4798 Jun 22 j 09:22	21° <del>♄</del> 44'53	0°-5'-46				
minimum elong	-4798 Jun 22 j 09:22	21° <del>♄</del> 44'53	0°05'36	conjunction	-4792 Sep 01 j 00:11	2° <del>♄</del> 17'41	2°15'19
behind sun begin	-4798 Jun 22 j 02:25	21° <del>♄</del> 42'46		minimum elong	-4792 Sep 01 j 00:09	2° <del>♄</del> 17'40	2°15'32
behind sun end	-4798 Jun 22 j 16:19	21° <del>♄</del> 47'01		max. Earth dist.	-4792 Aug 31 j 16:52	2° <del>♄</del> 15'34	11.19220 AU
max. Earth dist.	-4798 Jun 22 j 22:19	21° <del>♄</del> 48'53	10.47063 AU	morning rise	-4792 Sep 17 j 11:19	4° <del>♄</del> 11'27	
morning rise	-4798 Jul 09 j 23:57	23° <del>♄</del> 54'54		retrograde	-4792 Dec 25 j 03:48	10° <del>♄</del> 57'48	
asc. node	-4798 Aug 28 j 12:00	29° <del>♄</del> 08'28		opposition	-4791 Mar 05 j 02:54	7° <del>♄</del> 42'39	2°50'12
	-4798 Sep 09 j 00:58	0° <del>Π</del>		min. Earth dist.	-4791 Mar 05 j 10:49	7° <del>♄</del> 41'12	9.21837 AU
retrograde	-4798 Oct 18 j 00:58	1° <del>Π</del> 20'28		direct	-4791 May 15 j 23:02	4° <del>♄</del> 23'03	
	-4798 Nov 26 j 17:48	30° <del>♅</del>		evening set	-4791 Aug 26 j 13:44	11° <del>♄</del> 21'38	
opposition	-4798 Dec 24 j 07:08	27° <del>♄</del> 58'35	0°12'21				
min. Earth dist.	-4798 Dec 23 j 21:45	28° <del>♄</del> 00'26	8.54696 AU	conjunction	-4791 Sep 12 j 01:12	13° <del>♄</del> 15'09	2°23'10
direct	-4797 Mar 04 j 01:39	24° <del>♄</del> 31'21		minimum elong	-4791 Sep 12 j 01:11	13° <del>♄</del> 15'09	2°23'22
	-4797 May 29 j 16:06	0° <del>Π</del>		max. Earth dist.	-4791 Sep 11 j 14:21	13° <del>♄</del> 12'01	11.23310 AU

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 10

Attention, astronomical year style is used: The year -4791 in astronomical counting style is the year 4792 BCE in historical counting style.

	-4791 Sep 27 j 06:01	15°♈		morning rise	-4785 Dec 03 j 10:57	21°♊55'39	
morning rise	-4791 Sep 28 j 10:06	15°♈07'58		retrograde	-4784 Mar 16 j 01:04	29°♊16'45	
retrograde	-4790 Jan 05 j 12:09	21°♈54'16		opposition	-4784 May 25 j 22:49	25°♊54'45	1°24'20
opposition	-4790 Mar 16 j 19:22	18°♈39'04	2°56'32	min. Earth dist.	-4784 May 26 j 12:10	25°♊52'15	8.81365 AU
min. Earth dist.	-4790 Mar 17 j 05:19	18°♈37'16	9.24453 AU	direct	-4784 Aug 03 j 08:25	22°♊35'26	
direct	-4790 May 27 j 15:42	15°♈20'15		evening set	-4784 Nov 10 j 23:03	29°♊45'26	
evening set	-4790 Sep 06 j 14:16	22°♈16'05			-4784 Nov 12 j 23:48	0°♈	
conjunction	-4790 Sep 22 j 23:47	24°♈09'01	2°25'47	conjunction	-4784 Nov 27 j 16:03	1°♈46'47	0°55'16
minimum elong	-4790 Sep 22 j 23:47	24°♈09'01	2°25'56	minimum elong	-4784 Nov 27 j 16:05	1°♈46'47	0°55'09
max. Earth dist.	-4790 Sep 22 j 11:13	24°♈05'23	11.24386 AU	max. Earth dist.	-4784 Nov 27 j 00:21	1°♈42'00	10.74350 AU
morning rise	-4790 Oct 09 j 07:20	26°♈01'28		morning rise	-4784 Dec 14 j 12:44	3°♈49'18	
	-4790 Nov 17 j 03:40	0°♈		retrograde	-4783 Mar 29 j 01:10	11°♈21'23	
retrograde	-4789 Jan 16 j 21:57	2°♈49'31		opposition	-4783 Jun 07 j 18:07	7°♈57'34	0°49'48
	-4789 Mar 22 j 12:23	30°♈		min. Earth dist.	-4783 Jun 08 j 06:31	7°♈55'13	8.66926 AU
opposition	-4789 Mar 28 j 12:06	29°♈33'56	2°56'33	direct	-4783 Aug 15 j 12:51	4°♈37'21	
min. Earth dist.	-4789 Mar 28 j 23:38	29°♈31'51	9.24017 AU	evening set	-4783 Nov 23 j 03:10	11°♈55'06	
direct	-4789 Jun 08 j 03:34	26°♈15'41		max. Earth dist.	-4783 Dec 09 j 10:01	13°♈55'10	10.59469 AU
	-4789 Aug 18 j 14:31	0°♈					
evening set	-4789 Sep 17 j 13:17	3°♈10'11		conjunction	-4783 Dec 10 j 00:00	13°♈59'29	0°25'37
conjunction	-4789 Oct 03 j 21:43	5°♈03'08	2°23'07	minimum elong	-4783 Dec 10 j 00:01	13°♈59'29	0°25'27
minimum elong	-4789 Oct 03 j 21:44	5°♈03'09	2°23'14		-4783 Dec 18 j 03:48	15°♈	
max. Earth dist.	-4789 Oct 03 j 07:25	4°♈58'59	11.22458 AU	morning rise	-4783 Dec 27 j 01:18	16°♈05'17	
morning rise	-4789 Oct 20 j 04:58	6°♈55'51		retrograde	-4782 Apr 11 j 12:10	23°♈49'20	
retrograde	-4788 Jan 28 j 10:59	13°♈47'19		opposition	-4782 Jun 20 j 21:01	20°♈23'43	0°11'45
opposition	-4788 Apr 08 j 06:29	10°♈31'02	2°50'13	min. Earth dist.	-4782 Jun 21 j 07:37	20°♈21'39	8.51681 AU
min. Earth dist.	-4788 Apr 08 j 19:54	10°♈28'36	9.20604 AU	direct	-4782 Aug 28 j 00:23	17°♈02'25	
direct	-4788 Jun 18 j 15:25	7°♈13'04		desc. node	-4782 Oct 11 j 02:32	18°♈43'56	
evening set	-4788 Sep 27 j 12:27	14°♈07'42		evening set	-4782 Dec 05 j 18:45	24°♈29'20	
conjunction	-4788 Oct 13 j 20:42	16°♈01'14	2°15'12	conjunction	-4782 Dec 22 j 19:48	26°♈37'01	0°-6'-14
minimum elong	-4788 Oct 13 j 20:44	16°♈01'14	2°15'17	minimum elong	-4782 Dec 22 j 19:48	26°♈37'01	0°06'26
max. Earth dist.	-4788 Oct 13 j 04:06	15°♈56'23	11.17651 AU	behind sun begin	-4782 Dec 22 j 13:06	26°♈34'56	
morning rise	-4788 Oct 30 j 04:57	17°♈54'49		behind sun end	-4782 Dec 23 j 02:30	26°♈39'06	
retrograde	-4787 Feb 08 j 03:52	24°♈51'22		max. Earth dist.	-4782 Dec 22 j 09:05	26°♈33'39	10.44081 AU
opposition	-4787 Apr 20 j 03:45	21°♈34'01	2°37'35	morning rise	-4781 Jan 09 j 01:43	28°♈46'18	
min. Earth dist.	-4787 Apr 20 j 18:46	21°♈31'17	9.14375 AU		-4781 Jan 19 j 04:58	0°♈	
direct	-4787 Jun 30 j 03:20	18°♈16'04		retrograde	-4781 Apr 25 j 09:37	6°♈42'56	
evening set	-4787 Oct 08 j 13:22	25°♈12'14		opposition	-4781 Jul 04 j 08:17	3°♈15'32	0°-28'-18
conjunction	-4787 Oct 24 j 22:34	27°♈06'57	2°02'10	min. Earth dist.	-4781 Jul 04 j 15:50	3°♈14'03	8.36317 AU
minimum elong	-4787 Oct 24 j 22:36	27°♈06'57	2°02'12		-4781 Aug 29 j 14:05	30°♈	
max. Earth dist.	-4787 Oct 24 j 05:21	27°♈01'53	11.10144 AU	direct	-4781 Sep 09 j 20:37	29°♈53'05	
morning rise	-4787 Nov 10 j 08:46	29°♈02'00		evening set	-4781 Sep 21 j 01:17	0°♈	
	-4787 Nov 18 j 21:07	0°♈			-4781 Dec 18 j 23:13	7°♈30'18	
retrograde	-4786 Feb 20 j 02:03	6°♈05'14		conjunction	-4780 Jan 05 j 04:34	9°♈41'22	0°-38'-38
opposition	-4786 May 02 j 04:46	2°♈46'32	2°18'50	minimum elong	-4780 Jan 05 j 04:32	9°♈41'22	0°38'51
min. Earth dist.	-4786 May 02 j 19:54	2°♈43'45	9.05542 AU	max. Earth dist.	-4780 Jan 04 j 21:32	9°♈39'08	10.28921 AU
	-4786 Jun 15 j 23:56	30°♈		morning rise	-4780 Jan 22 j 15:01	11°♈54'09	
direct	-4786 Jul 11 j 18:06	29°♈28'19		retrograde	-4780 May 08 j 17:49	20°♈03'21	
	-4786 Aug 06 j 02:07	0°♈		opposition	-4780 Jul 17 j 04:00	16°♈34'20	-1°-8'-21
evening set	-4786 Oct 19 j 18:08	6°♈27'34		min. Earth dist.	-4780 Jul 17 j 07:50	16°♈33'34	8.21615 AU
conjunction	-4786 Nov 05 j 05:19	8°♈24'01	1°44'13	direct	-4780 Sep 22 j 02:14	13°♈10'37	
minimum elong	-4786 Nov 05 j 05:22	8°♈24'01	1°44'12	evening set	-4780 Dec 31 j 17:50	20°♈58'54	
max. Earth dist.	-4786 Nov 04 j 12:45	8°♈19'06	11.00177 AU				
morning rise	-4786 Nov 21 j 18:10	10°♈21'03		conjunction	-4779 Jan 18 j 03:21	23°♈13'18	-1°-9'-57
retrograde	-4785 Mar 04 j 09:50	17°♈32'30		minimum elong	-4779 Jan 18 j 03:18	23°♈13'17	1°10'11
opposition	-4785 May 14 j 10:37	14°♈12'13	1°54'16	max. Earth dist.	-4779 Jan 17 j 23:59	23°♈12'12	10.14807 AU
min. Earth dist.	-4785 May 15 j 00:52	14°♈09'35	8.94404 AU	morning rise	-4779 Feb 04 j 18:07	25°♈29'26	
direct	-4785 Jul 23 j 11:53	10°♈53'34			-4779 Mar 15 j 11:53	0°♈	
evening set	-4785 Oct 31 j 04:46	17°♈57'24		retrograde	-4779 May 23 j 12:01	3°♈50'13	
conjunction	-4785 Nov 16 j 18:34	19°♈56'05	1°21'45	opposition	-4779 Jul 31 j 07:33	0°♈19'53	-1°-45'-56
minimum elong	-4785 Nov 16 j 18:37	19°♈56'06	1°21'40	min. Earth dist.	-4779 Jul 31 j 07:57	0°♈19'48	8.08409 AU
max. Earth dist.	-4785 Nov 16 j 02:25	19°♈51'14	10.88096 AU		-4779 Aug 04 j 09:45	30°♈	
				direct	-4779 Oct 05 j 16:30	26°♈54'49	
					-4779 Dec 03 j 16:47	0°♈	
				evening set	-4778 Jan 15 j 02:29	4°♈54'20	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 11

Attention, astronomical year style is used: The year -4778 in astronomical counting style is the year 4779 BCE in historical counting style.

conjunction	-4778 Feb 01 j 15:57	7°☾11'45	-1°-38'-5	min. Earth dist.	-4773 Oct 25 j 13:24	27°☾59'58	7.96363 AU
minimum elong	-4778 Feb 01 j 15:54	7°☾11'44	1°38'20	direct	-4773 Dec 31 j 21:45	24°☾26'54	
max. Earth dist.	-4778 Feb 01 j 16:26	7°☾11'55	10.02584 AU		-4772 Mar 24 j 00:12	0°☾	
morning rise	-4778 Feb 19 j 10:37	9°☾30'53		evening set	-4772 Apr 15 j 22:59	2°☾49'01	
retrograde	-4778 Jun 07 j 13:37	18°☾01'20					
opposition	-4778 Aug 14 j 18:06	14°☾30'02	-2°-18'-18	conjunction	-4772 May 04 j 02:51	5°☾10'16	-1°-48'-23
min. Earth dist.	-4778 Aug 14 j 15:16	14°☾30'37	7.97520 AU	minimum elong	-4772 May 04 j 02:55	5°☾10'17	1°48'23
direct	-4778 Oct 19 j 17:30	11°☾03'39		max. Earth dist.	-4772 May 04 j 22:19	5°☾16'38	10.01142 AU
evening set	-4777 Jan 29 j 23:57	19°☾13'38		morning rise	-4772 May 22 j 04:59	7°☾30'55	
				retrograde	-4772 Sep 03 j 01:28	15°☾41'27	
conjunction	-4777 Feb 16 j 17:06	21°☾33'37	-2°00'-53	opposition	-4772 Nov 08 j 09:10	12°☾13'39	-1°-59'-55
minimum elong	-4777 Feb 16 j 17:03	21°☾33'36	2°01'08	min. Earth dist.	-4772 Nov 07 j 18:59	12°☾16'35	8.06741 AU
max. Earth dist.	-4777 Feb 16 j 21:51	21°☾35'12	9.93061 AU	direct	-4771 Jan 14 j 17:36	8°☾43'48	
morning rise	-4777 Mar 06 j 15:01	23°☾55'09		evening set	-4771 May 01 j 01:47	16°☾59'01	
	-4777 Apr 29 j 11:23	0°☾					
retrograde	-4777 Jun 22 j 19:08	2°☾32'17		conjunction	-4771 May 19 j 04:45	19°☾18'02	-1°-22'-17
	-4777 Aug 17 j 07:15	30°☾		minimum elong	-4771 May 19 j 04:49	19°☾18'03	1°22'14
opposition	-4777 Aug 29 j 09:55	29°☾00'29	-2°-42'-41	max. Earth dist.	-4771 May 19 j 22:52	19°☾23'52	10.12808 AU
min. Earth dist.	-4777 Aug 29 j 04:04	29°☾01'41	7.89696 AU	morning rise	-4771 Jun 06 j 04:43	21°☾36'04	
direct	-4777 Nov 03 j 04:20	25°☾32'53		retrograde	-4771 Sep 16 j 19:35	29°☾33'17	
	-4776 Jan 13 j 19:40	0°☾		opposition	-4771 Nov 22 j 06:26	26°☾07'17	-1°-24'-19
evening set	-4776 Feb 14 j 08:12	3°☾51'35		min. Earth dist.	-4771 Nov 21 j 17:56	26°☾09'51	8.19339 AU
				direct	-4770 Jan 29 j 07:33	22°☾37'58	
conjunction	-4776 Mar 03 j 04:45	6°☾13'31	-2°-16'-20		-4770 May 09 j 16:45	0°☾	
minimum elong	-4776 Mar 03 j 04:44	6°☾13'30	2°16'34	evening set	-4770 May 15 j 17:43	0°☾44'36	
max. Earth dist.	-4776 Mar 03 j 14:02	6°☾16'37	9.86934 AU				
morning rise	-4776 Mar 21 j 05:15	8°☾36'41		conjunction	-4770 Jun 02 j 18:28	3°☾00'49	0°-52'-7
	-4776 May 17 j 04:11	15°☾		minimum elong	-4770 Jun 02 j 18:30	3°☾00'50	0°52'01
retrograde	-4776 Jul 07 j 01:45	17°☾16'36		max. Earth dist.	-4770 Jun 03 j 09:53	3°☾05'42	10.26300 AU
	-4776 Aug 27 j 20:29	15°☾		morning rise	-4770 Jun 20 j 15:16	5°☾15'47	
opposition	-4776 Sep 12 j 04:34	13°☾44'44	-2°-56'-47	retrograde	-4770 Sep 30 j 01:57	12°☾59'37	
min. Earth dist.	-4776 Sep 11 j 19:49	13°☾46'34	7.85513 AU	opposition	-4770 Dec 05 j 19:26	9°☾35'31	0°-45'-10
direct	-4776 Nov 16 j 22:46	10°☾16'07		min. Earth dist.	-4770 Dec 05 j 08:53	9°☾37'38	8.33426 AU
	-4775 Jan 30 j 03:31	15°☾		direct	-4769 Feb 12 j 13:44	6°☾07'01	
evening set	-4775 Feb 28 j 23:47	18°☾40'52		evening set	-4769 May 29 j 21:31	14°☾04'00	
					-4769 Jun 06 j 11:26	15°☾	
conjunction	-4775 Mar 18 j 23:21	21°☾03'58	-2°-23'00	conjunction	-4769 Jun 16 j 18:53	16°☾17'04	0°-19'-58
minimum elong	-4775 Mar 18 j 23:21	21°☾03'58	2°23'11	minimum elong	-4769 Jun 16 j 18:54	16°☾17'04	0°19'49
max. Earth dist.	-4775 Mar 19 j 12:49	21°☾08'28	9.84671 AU	max. Earth dist.	-4769 Jun 17 j 07:04	16°☾20'52	10.40905 AU
morning rise	-4775 Apr 06 j 01:38	23°☾27'54		morning rise	-4769 Jul 04 j 11:41	18°☾28'39	
	-4775 Jun 03 j 17:34	0°☾		retrograde	-4769 Oct 12 j 22:30	25°☾59'45	
retrograde	-4775 Jul 22 j 05:54	2°☾06'10		opposition	-4769 Dec 19 j 00:02	22°☾37'29	0°-5'00
	-4775 Sep 09 j 13:14	30°☾		min. Earth dist.	-4769 Dec 18 j 15:22	22°☾39'12	8.48293 AU
opposition	-4775 Sep 26 j 23:37	28°☾34'44	-2°-59'-11	asc. node	-4768 Feb 04 j 12:22	19°☾34'26	
min. Earth dist.	-4775 Sep 26 j 12:10	28°☾37'09	7.85277 AU	direct	-4768 Feb 26 j 11:04	19°☾10'00	
direct	-4775 Dec 01 j 21:49	25°☾05'21		evening set	-4768 Jun 11 j 13:01	26°☾56'58	
	-4774 Feb 16 j 00:35	0°☾					
evening set	-4774 Mar 16 j 18:22	3°☾32'46		conjunction	-4768 Jun 29 j 06:05	29°☾06'40	0°12'19
				minimum elong	-4768 Jun 29 j 06:04	29°☾06'39	0°12'31
conjunction	-4774 Apr 03 j 20:16	5°☾56'09	-2°-20'-14	behind sun begin	-4768 Jun 29 j 01:28	29°☾05'15	
minimum elong	-4774 Apr 03 j 20:18	5°☾56'09	2°20'21	behind sun end	-4768 Jun 29 j 10:41	29°☾08'03	
max. Earth dist.	-4774 Apr 04 j 13:07	6°☾01'45	9.86441 AU	max. Earth dist.	-4768 Jun 29 j 14:59	29°☾09'23	10.55898 AU
morning rise	-4774 Apr 21 j 23:28	8°☾19'52			-4768 Jul 06 j 11:54	0°☾	
retrograde	-4774 Aug 06 j 04:34	16°☾52'12		morning rise	-4768 Jul 16 j 18:07	1°☾14'46	
opposition	-4774 Oct 11 j 16:16	13°☾21'38	-2°-49'-39	retrograde	-4768 Oct 24 j 08:55	8°☾34'18	
min. Earth dist.	-4774 Oct 11 j 02:42	13°☾24'28	7.88998 AU	opposition	-4768 Dec 30 j 20:36	5°☾13'42	0°33'59
direct	-4774 Dec 16 j 22:14	9°☾51'46		min. Earth dist.	-4768 Dec 30 j 13:36	5°☾15'04	8.63218 AU
evening set	-4773 Apr 01 j 11:28	18°☾18'13		direct	-4767 Mar 10 j 23:37	1°☾47'23	
				evening set	-4767 Jun 24 j 16:14	9°☾24'26	
conjunction	-4773 Apr 19 j 14:53	20°☾40'57	-2°-8'-17	conjunction	-4767 Jul 12 j 04:25	11°☾30'45	0°43'00
minimum elong	-4773 Apr 19 j 14:56	20°☾40'59	2°08'21	minimum elong	-4767 Jul 12 j 04:23	11°☾30'44	0°43'14
max. Earth dist.	-4773 Apr 20 j 09:52	20°☾47'13	9.92097 AU	max. Earth dist.	-4767 Jul 12 j 10:48	11°☾32'41	10.70572 AU
morning rise	-4773 May 07 j 18:04	23°☾03'33		morning rise	-4767 Jul 29 j 11:12	13°☾35'27	
	-4773 Jul 12 j 05:55	0°☾		retrograde	-4767 Nov 05 j 11:56	20°☾44'59	
retrograde	-4773 Aug 20 j 20:01	1°☾26'16		opposition	-4766 Jan 12 j 10:00	17°☾25'52	1°10'06
	-4773 Sep 29 j 20:07	30°☾					
opposition	-4773 Oct 26 j 04:03	27°☾56'55	-2°-29'-13				

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 12

Attention, astronomical year style is used: The year -4766 in astronomical counting style is the year 4767 BCE in historical counting style.

min. Earth dist.	-4766 Jan 12 j 05:24	17° $\Pi$ 26'45	8.77518 AU	retrograde	-4760 Jan 12 j 08:05	28° $\Omega$ 21'41	
direct	-4766 Mar 24 j 02:52	14° $\Pi$ 00'48		opposition	-4760 Mar 22 j 20:07	25° $\Omega$ 05'47	2°57'31
evening set	-4766 Jul 07 j 07:44	21° $\Pi$ 28'28		min. Earth dist.	-4760 Mar 23 j 07:01	25° $\Omega$ 03'48	9.22918 AU
				direct	-4760 Jun 02 j 13:24	21° $\Omega$ 46'47	
conjunction	-4766 Jul 24 j 14:42	23° $\Pi$ 31'34	1°10'58	evening set	-4760 Sep 12 j 05:28	28° $\Omega$ 42'04	
minimum elong	-4766 Jul 24 j 14:39	23° $\Pi$ 31'33	1°11'12		-4760 Sep 23 j 13:10	0° $\eta$	
max. Earth dist.	-4766 Jul 24 j 18:16	23° $\Pi$ 32'38	10.84277 AU				
morning rise	-4766 Aug 10 j 16:14	25° $\Pi$ 33'06		conjunction	-4760 Sep 28 j 14:11	0° $\eta$ 35'03	2°25'02
	-4766 Sep 22 j 07:40	0° $\Xi$		minimum elong	-4760 Sep 28 j 14:12	0° $\eta$ 35'03	2°25'10
retrograde	-4766 Nov 17 j 08:31	2° $\Xi$ 34'21		max. Earth dist.	-4760 Sep 28 j 00:44	0° $\eta$ 31'09	11.22225 AU
	-4765 Jan 15 j 01:51	30° $\mathbb{R}$ $\Pi$		morning rise	-4760 Oct 14 j 21:39	2° $\eta$ 27'42	
opposition	-4765 Jan 24 j 17:00	29° $\Pi$ 16'30	1°42'04	retrograde	-4759 Jan 22 j 19:01	9° $\eta$ 17'43	
min. Earth dist.	-4765 Jan 24 j 15:37	29° $\Pi$ 16'46	8.90582 AU	opposition	-4759 Apr 03 j 13:45	6° $\eta$ 01'20	2°53'54
direct	-4765 Apr 05 j 19:31	25° $\Pi$ 52'38		min. Earth dist.	-4759 Apr 04 j 01:49	5° $\eta$ 59'08	9.21269 AU
	-4765 Jun 20 j 01:37	0° $\Xi$		direct	-4759 Jun 14 j 02:45	2° $\eta$ 42'50	
evening set	-4765 Jul 19 j 12:59	3° $\Xi$ 11'51		evening set	-4759 Sep 23 j 04:15	9° $\eta$ 37'29	
conjunction	-4765 Aug 05 j 14:38	5° $\Xi$ 12'02	1°35'14	conjunction	-4759 Oct 09 j 12:34	11° $\eta$ 30'46	2°19'22
minimum elong	-4765 Aug 05 j 14:35	5° $\Xi$ 12'01	1°35'29	minimum elong	-4759 Oct 09 j 12:36	11° $\eta$ 30'46	2°19'28
max. Earth dist.	-4765 Aug 05 j 14:22	5° $\Xi$ 11'57	10.96456 AU	max. Earth dist.	-4759 Oct 08 j 22:36	11° $\eta$ 26'42	11.19188 AU
morning rise	-4765 Aug 22 j 11:17	7° $\Xi$ 10'47		morning rise	-4759 Oct 25 j 20:19	13° $\eta$ 23'58	
retrograde	-4765 Nov 28 j 21:10	14° $\Xi$ 05'34		retrograde	-4758 Feb 03 j 11:02	20° $\eta$ 18'12	
opposition	-4764 Feb 05 j 18:31	10° $\Xi$ 48'42	2°09'01	opposition	-4758 Apr 15 j 09:25	17° $\eta$ 01'03	2°43'56
min. Earth dist.	-4764 Feb 05 j 20:22	10° $\Xi$ 48'21	9.01894 AU	min. Earth dist.	-4758 Apr 15 j 21:51	16° $\eta$ 58'47	9.16818 AU
direct	-4764 Apr 17 j 06:17	7° $\Xi$ 25'59		direct	-4758 Jun 25 j 14:19	13° $\eta$ 42'55	
evening set	-4764 Jul 30 j 09:05	14° $\Xi$ 37'52		evening set	-4758 Oct 04 j 04:11	20° $\eta$ 38'20	
conjunction	-4764 Aug 16 j 05:45	16° $\Xi$ 35'31	1°55'11	conjunction	-4758 Oct 20 j 13:01	22° $\eta$ 32'30	2°08'29
minimum elong	-4764 Aug 16 j 05:42	16° $\Xi$ 35'30	1°55'26	minimum elong	-4758 Oct 20 j 13:04	22° $\eta$ 32'31	2°08'33
max. Earth dist.	-4764 Aug 16 j 01:38	16° $\Xi$ 34'19	11.06663 AU	max. Earth dist.	-4758 Oct 19 j 22:15	22° $\eta$ 28'11	11.13423 AU
morning rise	-4764 Sep 01 j 22:06	18° $\Xi$ 31'56		morning rise	-4758 Nov 05 j 22:08	24° $\eta$ 26'52	
retrograde	-4764 Dec 09 j 07:53	25° $\Xi$ 22'11			-4757 Jan 03 j 09:24	0° $\Omega$	
opposition	-4763 Feb 16 j 16:01	22° $\Xi$ 05'58	2°30'20	retrograde	-4757 Feb 15 j 07:35	1° $\Omega$ 26'56	
min. Earth dist.	-4763 Feb 16 j 19:56	22° $\Xi$ 05'14	9.11044 AU		-4757 Mar 31 j 11:48	30° $\mathbb{R}$ $\eta$	
direct	-4763 Apr 29 j 10:53	18° $\Xi$ 44'22		opposition	-4757 Apr 27 j 08:37	28° $\eta$ 08'47	2°27'45
evening set	-4763 Aug 10 j 21:20	25° $\Xi$ 50'03		min. Earth dist.	-4757 Apr 27 j 21:54	28° $\eta$ 06'21	9.09697 AU
				direct	-4757 Jul 07 j 02:17	24° $\eta$ 50'45	
conjunction	-4763 Aug 27 j 13:47	27° $\Xi$ 45'43	2°10'22		-4757 Sep 29 j 03:54	0° $\Omega$	
minimum elong	-4763 Aug 27 j 13:45	27° $\Xi$ 45'42	2°10'36	evening set	-4757 Oct 15 j 07:09	1° $\Omega$ 48'27	
max. Earth dist.	-4763 Aug 27 j 07:30	27° $\Xi$ 43'53	11.14552 AU				
morning rise	-4763 Sep 13 j 02:25	29° $\Xi$ 40'18		conjunction	-4757 Oct 31 j 17:15	3° $\Omega$ 44'03	1°52'36
	-4763 Sep 15 j 23:56	0° $\Omega$		minimum elong	-4757 Oct 31 j 17:18	3° $\Omega$ 44'03	1°52'36
retrograde	-4763 Dec 20 j 16:09	6° $\Omega$ 27'51		max. Earth dist.	-4757 Oct 31 j 01:20	3° $\Omega$ 39'20	11.05112 AU
opposition	-4762 Feb 28 j 10:36	3° $\Omega$ 12'00	2°45'39	morning rise	-4757 Nov 17 j 04:51	5° $\Omega$ 40'07	
min. Earth dist.	-4762 Feb 28 j 16:24	3° $\Omega$ 10'56	9.17723 AU	retrograde	-4756 Feb 27 j 10:55	12° $\Omega$ 47'36	
	-4762 Apr 27 j 18:57	30° $\mathbb{R}$ $\Xi$		opposition	-4756 May 08 j 12:27	9° $\Omega$ 28'15	2°05'35
direct	-4762 May 11 j 07:39	29° $\Xi$ 51'25		min. Earth dist.	-4756 May 09 j 02:21	9° $\Omega$ 25'40	9.00147 AU
	-4762 May 24 j 18:47	0° $\Omega$		direct	-4756 Jul 17 j 17:59	6° $\Omega$ 10'03	
evening set	-4762 Aug 22 j 03:44	6° $\Omega$ 52'14		evening set	-4756 Oct 25 j 15:01	13° $\Omega$ 11'33	
				max. Earth dist.	-4756 Nov 10 j 11:36	15° $\Omega$ 04'22	10.94538 AU
conjunction	-4762 Sep 07 j 16:46	8° $\Omega$ 46'26	2°20'30				
minimum elong	-4762 Sep 07 j 16:44	8° $\Omega$ 46'25	2°20'42	conjunction	-4756 Nov 11 j 03:24	15° $\Omega$ 09'05	1°31'59
max. Earth dist.	-4762 Sep 07 j 08:30	8° $\Omega$ 44'02	11.19867 AU	minimum elong	-4756 Nov 11 j 03:27	15° $\Omega$ 09'06	1°31'56
morning rise	-4762 Sep 24 j 02:31	10° $\Omega$ 39'46		morning rise	-4756 Nov 27 j 18:15	17° $\Omega$ 07'25	
	-4762 Nov 06 j 03:44	15° $\Omega$		retrograde	-4755 Mar 10 j 21:10	24° $\Omega$ 23'48	
retrograde	-4761 Jan 01 j 00:23	17° $\Omega$ 26'22		opposition	-4755 May 20 j 21:51	21° $\Omega$ 02'58	1°37'51
	-4761 Feb 28 j 18:41	15° $\mathbb{R}$ $\Omega$		min. Earth dist.	-4755 May 21 j 11:16	21° $\Omega$ 00'28	8.88505 AU
opposition	-4761 Mar 12 j 03:26	14° $\Omega$ 10'39	2°54'45	direct	-4755 Jul 29 j 13:58	17° $\Omega$ 44'24	
min. Earth dist.	-4761 Mar 12 j 11:51	14° $\Omega$ 09'06	9.21722 AU	evening set	-4755 Nov 06 j 05:40	24° $\Omega$ 51'12	
direct	-4761 May 23 j 00:25	10° $\Omega$ 50'55					
	-4761 Aug 07 j 00:26	15° $\Omega$		conjunction	-4755 Nov 22 j 21:12	26° $\Omega$ 51'10	1°07'09
evening set	-4761 Sep 02 j 05:56	17° $\Omega$ 48'17		minimum elong	-4755 Nov 22 j 21:15	26° $\Omega$ 51'11	1°07'02
				max. Earth dist.	-4755 Nov 22 j 07:04	26° $\Omega$ 46'54	10.82055 AU
conjunction	-4761 Sep 18 j 16:18	19° $\Omega$ 41'35	2°25'25	morning rise	-4755 Dec 09 j 15:51	28° $\Omega$ 52'11	
minimum elong	-4761 Sep 18 j 16:17	19° $\Omega$ 41'35	2°25'34		-4755 Dec 19 j 08:24	0° $\mathbb{M}$	
max. Earth dist.	-4761 Sep 18 j 04:58	19° $\Omega$ 38'18	11.22450 AU	retrograde	-4754 Mar 23 j 18:03	6° $\mathbb{M}$ 18'49	
morning rise	-4761 Oct 05 j 00:22	21° $\Omega$ 34'17		opposition	-4754 Jun 02 j 13:44	2° $\mathbb{M}$ 56'21	1°05'11



## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 13

Attention, astronomical year style is used: The year -4754 in astronomical counting style is the year 4755 BCE in historical counting style.

min. Earth dist.	-4754 Jun 03 j 01:22	2° $\mathbb{M}$ 54'09	8.75173 AU	minimum elong	-4748 Feb 10 j 09:26	15° $\mathfrak{Z}$ 24'20	1°51'52
	-4754 Jul 20 j 09:00	30° $\mathbb{R}$ $\mathfrak{A}$		max. Earth dist.	-4748 Feb 10 j 12:19	15° $\mathfrak{Z}$ 25'17	9.98601 AU
direct	-4754 Aug 10 j 16:02	29° $\mathfrak{A}$ 37'09		morning rise	-4748 Feb 28 j 05:45	17° $\mathfrak{Z}$ 44'35	
	-4754 Aug 31 j 14:23	0° $\mathbb{M}$		retrograde	-4748 Jun 15 j 09:05	26° $\mathfrak{Z}$ 18'14	
evening set	-4754 Nov 18 j 05:12	6° $\mathbb{M}$ 50'45		opposition	-4748 Aug 22 j 06:57	22° $\mathfrak{Z}$ 46'54	-2°-33'-1
max. Earth dist.	-4754 Dec 04 j 11:30	8° $\mathbb{M}$ 49'38	10.68103 AU	min. Earth dist.	-4748 Aug 22 j 02:47	22° $\mathfrak{Z}$ 47'46	7.94230 AU
				direct	-4748 Oct 27 j 04:25	19° $\mathfrak{Z}$ 20'07	
conjunction	-4754 Dec 05 j 00:17	8° $\mathbb{M}$ 53'33	0°38'45	evening set	-4747 Feb 06 j 21:00	27° $\mathfrak{Z}$ 34'13	
minimum elong	-4754 Dec 05 j 00:19	8° $\mathbb{M}$ 53'34	0°38'36				
morning rise	-4754 Dec 21 j 23:13	10° $\mathbb{M}$ 57'39		conjunction	-4747 Feb 24 j 16:05	29° $\mathfrak{Z}$ 55'08	-2°-10'-32
	-4753 Jan 27 j 13:55	15° $\mathbb{M}$		minimum elong	-4747 Feb 24 j 16:03	29° $\mathfrak{Z}$ 55'08	2°10'46
retrograde	-4753 Apr 06 j 01:38	18° $\mathbb{M}$ 35'34		max. Earth dist.	-4747 Feb 24 j 23:24	29° $\mathfrak{Z}$ 57'34	9.90449 AU
opposition	-4753 Jun 15 j 12:54	15° $\mathbb{M}$ 11'24	0°28'32		-4747 Feb 25 j 06:43	0° $\approx$	
min. Earth dist.	-4753 Jun 15 j 22:45	15° $\mathbb{M}$ 09'31	8.60646 AU	morning rise	-4747 Mar 14 j 15:12	2° $\approx$ 17'24	
	-4753 Jun 18 j 00:30	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-4747 Jun 30 j 14:52	10° $\approx$ 55'45	
direct	-4753 Aug 22 j 22:25	11° $\mathbb{M}$ 51'19		opposition	-4747 Sep 05 j 23:42	7° $\approx$ 23'56	-2°-51'-56
	-4753 Oct 23 j 12:21	15° $\mathbb{M}$		min. Earth dist.	-4747 Sep 05 j 16:16	7° $\approx$ 25'29	7.87894 AU
evening set	-4753 Nov 30 j 15:21	19° $\mathbb{M}$ 13'13		direct	-4747 Nov 10 j 18:08	3° $\approx$ 55'48	
				evening set	-4746 Feb 22 j 08:54	12° $\approx$ 17'21	
conjunction	-4753 Dec 17 j 14:17	21° $\mathbb{M}$ 19'07	0°07'48	conjunction	-4746 Mar 12 j 07:06	14° $\approx$ 39'51	-2°-21'-17
minimum elong	-4753 Dec 17 j 14:17	21° $\mathbb{M}$ 19'07	0°07'37	minimum elong	-4746 Mar 12 j 07:05	14° $\approx$ 39'51	2°21'28
behind sun begin	-4753 Dec 17 j 07:51	21° $\mathbb{M}$ 17'08		max. Earth dist.	-4746 Mar 12 j 18:14	14° $\approx$ 43'34	9.85913 AU
behind sun end	-4753 Dec 17 j 20:44	21° $\mathbb{M}$ 21'06			-4746 Mar 14 j 19:34	15° $\approx$	
max. Earth dist.	-4753 Dec 17 j 02:35	21° $\mathbb{M}$ 15'29	10.53220 AU	morning rise	-4746 Mar 30 j 08:24	17° $\approx$ 03'20	
morning rise	-4752 Jan 03 j 17:54	23° $\mathbb{M}$ 26'33		retrograde	-4746 Jul 15 j 20:17	25° $\approx$ 42'13	
	-4752 Mar 10 j 07:07	0° $\mathfrak{A}$		opposition	-4746 Sep 20 j 18:11	22° $\approx$ 10'23	-2°-59'-44
desc. node	-4752 Mar 18 j 01:22	0° $\mathfrak{A}$ 26'39		min. Earth dist.	-4746 Sep 20 j 08:19	22° $\approx$ 12'27	7.85338 AU
retrograde	-4752 Apr 18 j 17:33	1° $\mathfrak{A}$ 16'36		direct	-4746 Nov 25 j 13:50	18° $\approx$ 41'08	
	-4752 May 28 j 18:21	30° $\mathbb{R}$ $\mathbb{M}$		evening set	-4745 Mar 10 j 01:34	27° $\approx$ 07'04	
opposition	-4752 Jun 27 j 20:09	27° $\mathbb{M}$ 50'41	0°-10'-46				
min. Earth dist.	-4752 Jun 28 j 04:22	27° $\mathbb{M}$ 49'05	8.45502 AU	conjunction	-4745 Mar 28 j 02:22	29° $\approx$ 30'19	-2°-22'-47
direct	-4752 Sep 03 j 14:05	24° $\mathbb{M}$ 29'29		minimum elong	-4745 Mar 28 j 02:23	29° $\approx$ 30'19	2°22'56
	-4752 Nov 25 j 18:20	0° $\mathfrak{A}$		max. Earth dist.	-4745 Mar 28 j 16:39	29° $\approx$ 35'04	9.85322 AU
evening set	-4752 Dec 12 j 13:31	2° $\mathfrak{A}$ 01'02			-4745 Mar 31 j 19:32	0° $\mathfrak{H}$	
conjunction	-4752 Dec 29 j 16:37	4° $\mathfrak{A}$ 10'16	0°-24'-33	morning rise	-4745 Apr 15 j 05:09	1° $\mathfrak{H}$ 54'08	
minimum elong	-4752 Dec 29 j 16:36	4° $\mathfrak{A}$ 10'15	0°24'46	retrograde	-4745 Jul 30 j 21:44	10° $\mathfrak{H}$ 29'12	
max. Earth dist.	-4752 Dec 29 j 06:47	4° $\mathfrak{A}$ 07'09	10.38008 AU	opposition	-4745 Oct 05 j 11:36	6° $\mathfrak{H}$ 57'51	-2°-55'-35
morning rise	-4751 Jan 16 j 01:00	6° $\mathfrak{A}$ 21'11		min. Earth dist.	-4745 Oct 05 j 00:04	7° $\mathfrak{H}$ 00'17	7.86735 AU
retrograde	-4751 May 02 j 19:59	14° $\mathfrak{A}$ 23'44		direct	-4745 Dec 10 j 13:09	3° $\mathfrak{H}$ 27'47	
opposition	-4751 Jul 11 j 11:38	10° $\mathfrak{A}$ 56'10	0°-51'00	evening set	-4744 Mar 24 j 19:06	11° $\mathfrak{H}$ 54'40	
min. Earth dist.	-4751 Jul 11 j 18:02	10° $\mathfrak{A}$ 54'54	8.30413 AU				
direct	-4751 Sep 16 j 15:36	7° $\mathfrak{A}$ 33'40		conjunction	-4744 Apr 11 j 21:50	14° $\mathfrak{H}$ 17'46	-2°-14'-55
evening set	-4751 Dec 26 j 01:17	15° $\mathfrak{A}$ 16'00		minimum elong	-4744 Apr 11 j 21:53	14° $\mathfrak{H}$ 17'47	2°15'00
				max. Earth dist.	-4744 Apr 12 j 14:10	14° $\mathfrak{H}$ 23'11	9.88697 AU
conjunction	-4750 Jan 12 j 08:40	17° $\mathfrak{A}$ 28'36	0°-56'-31	morning rise	-4744 Apr 30 j 01:14	16° $\mathfrak{H}$ 40'59	
minimum elong	-4750 Jan 12 j 08:38	17° $\mathfrak{A}$ 28'35	0°56'45	retrograde	-4744 Aug 13 j 16:23	25° $\mathfrak{H}$ 08'14	
max. Earth dist.	-4750 Jan 12 j 02:14	17° $\mathfrak{A}$ 26'32	10.23222 AU	opposition	-4744 Oct 19 j 01:17	21° $\mathfrak{H}$ 37'51	-2°-39'-57
morning rise	-4750 Jan 29 j 21:29	19° $\mathfrak{A}$ 42'57		min. Earth dist.	-4744 Oct 18 j 12:47	21° $\mathfrak{H}$ 40'28	7.91954 AU
retrograde	-4750 May 17 j 08:37	27° $\mathfrak{A}$ 57'38		direct	-4744 Dec 24 j 13:49	18° $\mathfrak{H}$ 07'18	
opposition	-4750 Jul 25 j 11:05	24° $\mathfrak{A}$ 28'33	-1°-29'-53	evening set	-4743 Apr 09 j 09:09	26° $\mathfrak{H}$ 31'42	
min. Earth dist.	-4750 Jul 25 j 14:31	24° $\mathfrak{A}$ 27'52	8.16239 AU				
direct	-4750 Sep 30 j 02:02	21° $\mathfrak{A}$ 04'39		conjunction	-4743 Apr 27 j 12:51	28° $\mathfrak{H}$ 53'46	-1°-58'-27
evening set	-4749 Jan 09 j 02:56	28° $\mathfrak{A}$ 58'14		minimum elong	-4743 Apr 27 j 12:55	28° $\mathfrak{H}$ 53'47	1°58'29
	-4749 Jan 17 j 02:59	0° $\mathfrak{Z}$		max. Earth dist.	-4743 Apr 28 j 06:03	28° $\mathfrak{H}$ 59'25	9.95758 AU
					-4743 May 05 j 22:59	0° $\mathfrak{Y}$	
conjunction	-4749 Jan 26 j 14:32	1° $\mathfrak{Z}$ 14'02	-1°-26'-15	morning rise	-4743 May 15 j 15:48	1° $\mathfrak{Y}$ 15'29	
minimum elong	-4749 Jan 26 j 14:28	1° $\mathfrak{Z}$ 14'01	1°26'30	retrograde	-4743 Aug 28 j 01:12	9° $\mathfrak{Y}$ 31'53	
max. Earth dist.	-4749 Jan 26 j 12:31	1° $\mathfrak{Z}$ 13'22	10.09785 AU	opposition	-4743 Nov 02 j 09:23	6° $\mathfrak{Y}$ 02'49	-2°-14'-24
morning rise	-4749 Feb 13 j 07:19	3° $\mathfrak{Z}$ 31'34		min. Earth dist.	-4743 Nov 01 j 20:20	6° $\mathfrak{Y}$ 05'32	8.00597 AU
retrograde	-4749 Jun 01 j 06:04	11° $\mathfrak{Z}$ 56'59		direct	-4742 Jan 08 j 12:18	2° $\mathfrak{Y}$ 32'15	
opposition	-4749 Aug 08 j 18:02	8° $\mathfrak{Z}$ 26'36	-2°-4'-49	evening set	-4742 Apr 24 j 15:49	10° $\mathfrak{Y}$ 51'04	
min. Earth dist.	-4749 Aug 08 j 17:42	8° $\mathfrak{Z}$ 26'40	8.03901 AU				
direct	-4749 Oct 13 j 22:22	5° $\mathfrak{Z}$ 01'15		conjunction	-4742 May 12 j 19:18	13° $\mathfrak{Y}$ 11'17	-1°-34'-56
evening set	-4748 Jan 23 j 17:58	13° $\mathfrak{Z}$ 05'43		minimum elong	-4742 May 12 j 19:23	13° $\mathfrak{Y}$ 11'18	1°34'54
				max. Earth dist.	-4742 May 13 j 12:32	13° $\mathfrak{Y}$ 16'52	10.05975 AU
conjunction	-4748 Feb 10 j 09:30	15° $\mathfrak{Z}$ 24'21	-1°-51'-37	morning rise	-4742 May 30 j 20:39	15° $\mathfrak{Y}$ 30'43	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodiens AG 7-Dez-2017 14:35, page 14

Attention, astronomical year style is used: The year -4742 in astronomical counting style is the year 4743 BCE in historical counting style.

retrograde	-4742 Sep 10 j 23:12	23°Υ34'24		conjunction	-4736 Jul 30 j 14:19	0°♄09'16	1°24'36
opposition	-4742 Nov 16 j 10:10	20°Υ06'57	-1°-41'-19	minimum elong	-4736 Jul 30 j 14:17	0°♄09'15	1°24'51
min. Earth dist.	-4742 Nov 15 j 20:50	20°Υ09'42	8.12055 AU	max. Earth dist.	-4736 Jul 30 j 16:16	0°♄09'51	10.91234 AU
direct	-4741 Jan 23 j 05:22	16°Υ36'45		morning rise	-4736 Aug 16 j 13:18	2°♄09'16	
evening set	-4741 May 09 j 12:40	24°Υ47'41		retrograde	-4736 Nov 23 j 01:27	9°♄06'50	
				opposition	-4735 Jan 30 j 17:00	5°♄49'42	1°57'19
conjunction	-4741 May 27 j 14:42	27°Υ05'22	-1°-6'-21	min. Earth dist.	-4735 Jan 30 j 15:47	5°♄49'56	8.97261 AU
minimum elong	-4741 May 27 j 14:46	27°Υ05'23	1°06'16	direct	-4735 Apr 12 j 01:34	2°♄26'43	
max. Earth dist.	-4741 May 28 j 07:18	27°Υ10'40	10.18648 AU	evening set	-4735 Jul 25 j 10:34	9°♄41'53	
morning rise	-4741 Jun 14 j 13:18	29°Υ21'55					
	-4741 Jun 19 j 16:06	0°♄		conjunction	-4735 Aug 11 j 09:36	11°♄40'39	1°46'36
retrograde	-4741 Sep 24 j 10:53	7°♄12'06		minimum elong	-4735 Aug 11 j 09:33	11°♄40'38	1°46'51
opposition	-4741 Nov 30 j 02:42	3°♄46'29	-1°-3'-26	max. Earth dist.	-4735 Aug 11 j 08:58	11°♄40'28	11.02731 AU
min. Earth dist.	-4741 Nov 29 j 14:06	3°♄49'02	8.25589 AU	morning rise	-4735 Aug 28 j 03:46	13°♄38'03	
direct	-4740 Feb 06 j 14:21	0°♄16'59		retrograde	-4735 Dec 04 j 15:11	20°♄30'15	
evening set	-4740 May 22 j 22:01	8°♄18'35		opposition	-4734 Feb 11 j 16:31	17°♄14'06	2°21'15
				min. Earth dist.	-4734 Feb 11 j 18:32	17°♄13'43	9.07767 AU
conjunction	-4740 Jun 09 j 21:19	10°♄33'15	0°-34'-51	direct	-4734 Apr 24 j 07:19	13°♄52'25	
minimum elong	-4740 Jun 09 j 21:21	10°♄33'15	0°34'43	evening set	-4734 Aug 06 j 02:35	21°♄00'52	
max. Earth dist.	-4740 Jun 10 j 12:20	10°♄37'58	10.32975 AU				
morning rise	-4740 Jun 27 j 16:07	12°♄46'30		conjunction	-4734 Aug 22 j 20:57	22°♄57'22	2°04'00
	-4740 Jul 16 j 09:06	15°♄		minimum elong	-4734 Aug 22 j 20:54	22°♄57'21	2°04'15
retrograde	-4740 Oct 06 j 13:22	20°♄23'26		max. Earth dist.	-4734 Aug 22 j 16:37	22°♄56'06	11.12011 AU
opposition	-4740 Dec 12 j 10:57	16°♄59'44	0°-23'-25	morning rise	-4734 Sep 08 j 11:08	24°♄52'42	
min. Earth dist.	-4740 Dec 12 j 00:08	17°♄01'54	8.40394 AU		-4734 Oct 31 j 07:42	0°♄	
	-4739 Jan 08 j 02:20	15°♄		retrograde	-4734 Dec 15 j 23:13	1°♄41'18	
direct	-4739 Feb 19 j 14:14	13°♄31'16			-4733 Feb 01 j 07:01	30°♄	
	-4739 Apr 02 j 20:21	15°♄		opposition	-4733 Feb 23 j 12:35	28°♄25'49	2°39'20
evening set	-4739 Jun 05 j 18:59	21°♄22'50		min. Earth dist.	-4733 Feb 23 j 17:54	28°♄24'50	9.15869 AU
				direct	-4733 May 06 j 06:22	25°♄05'16	
conjunction	-4739 Jun 23 j 14:19	23°♄34'10	0°-2'-28		-4733 Jul 28 j 22:24	0°♄	
minimum elong	-4739 Jun 23 j 14:19	23°♄34'10	0°02'18	evening set	-4733 Aug 17 j 12:01	2°♄08'16	
behind sun begin	-4739 Jun 23 j 07:05	23°♄31'57					
behind sun end	-4739 Jun 23 j 21:33	23°♄36'23		conjunction	-4733 Sep 03 j 02:23	4°♄03'01	2°16'27
max. Earth dist.	-4739 Jun 24 j 02:43	23°♄37'59	10.48136 AU	minimum elong	-4733 Sep 03 j 02:21	4°♄03'00	2°16'40
morning rise	-4739 Jul 11 j 04:31	25°♄43'55		max. Earth dist.	-4733 Sep 02 j 18:19	4°♄00'40	11.18732 AU
asc. node	-4739 Jul 22 j 03:29	27°♄02'06		morning rise	-4733 Sep 19 j 13:27	5°♄56'50	
	-4739 Aug 18 j 22:29	0°♄		retrograde	-4733 Dec 27 j 07:26	12°♄43'40	
retrograde	-4739 Oct 19 j 03:58	3°♄08'36		opposition	-4732 Mar 06 j 06:20	9°♄28'27	2°51'16
	-4739 Dec 22 j 16:08	30°♄		min. Earth dist.	-4732 Mar 06 j 14:03	9°♄27'03	9.21248 AU
opposition	-4739 Dec 25 j 11:02	29°♄46'49	0°16'21	direct	-4732 May 17 j 03:34	6°♄08'52	
min. Earth dist.	-4739 Dec 25 j 02:52	29°♄48'26	8.55676 AU	evening set	-4732 Aug 27 j 16:17	13°♄07'45	
direct	-4738 Mar 05 j 06:34	26°♄19'36			-4732 Sep 12 j 23:04	15°♄	
	-4738 May 13 j 13:16	0°♄					
evening set	-4738 Jun 19 j 03:37	4°♄01'07		conjunction	-4732 Sep 13 j 03:42	15°♄01'21	2°23'45
				minimum elong	-4732 Sep 13 j 03:41	15°♄01'20	2°23'55
conjunction	-4738 Jul 06 j 18:08	6°♄09'00	0°29'11	max. Earth dist.	-4732 Sep 12 j 17:22	14°♄58'21	11.22622 AU
minimum elong	-4738 Jul 06 j 18:07	6°♄09'00	0°29'23	morning rise	-4732 Sep 29 j 12:27	16°♄54'13	
max. Earth dist.	-4738 Jul 07 j 02:49	6°♄11'38	10.63361 AU	retrograde	-4731 Jan 06 j 16:15	23°♄41'06	
morning rise	-4738 Jul 24 j 03:23	8°♄15'18		opposition	-4731 Mar 17 j 23:18	20°♄25'49	2°56'54
retrograde	-4738 Oct 31 j 09:36	15°♄29'11		min. Earth dist.	-4731 Mar 18 j 08:46	20°♄24'06	9.23670 AU
opposition	-4737 Jan 07 j 03:23	12°♄09'11	0°53'58	direct	-4731 May 28 j 18:31	17°♄07'01	
min. Earth dist.	-4737 Jan 06 j 21:44	12°♄10'16	8.70690 AU	evening set	-4731 Sep 07 j 17:05	24°♄03'11	
direct	-4737 Mar 18 j 13:49	8°♄43'19					
evening set	-4737 Jul 02 j 00:21	16°♄15'14		conjunction	-4731 Sep 24 j 02:34	25°♄56'14	2°25'46
				minimum elong	-4731 Sep 24 j 02:34	25°♄56'14	2°25'54
conjunction	-4737 Jul 19 j 09:40	18°♄19'47	0°58'32	max. Earth dist.	-4731 Sep 23 j 14:16	25°♄52'40	11.23509 AU
minimum elong	-4737 Jul 19 j 09:38	18°♄19'46	0°58'46	morning rise	-4731 Oct 10 j 10:02	27°♄48'48	
max. Earth dist.	-4737 Jul 19 j 14:28	18°♄21'14	10.77938 AU		-4731 Oct 30 j 11:59	0°♄	
morning rise	-4737 Aug 05 j 13:49	20°♄22'46		retrograde	-4730 Jan 18 j 02:56	4°♄37'33	
retrograde	-4737 Nov 12 j 08:40	27°♄27'35		opposition	-4730 Mar 29 j 16:43	1°♄21'53	2°56'10
opposition	-4736 Jan 19 j 13:00	24°♄09'09	1°27'59	min. Earth dist.	-4730 Mar 30 j 04:34	1°♄19'44	9.23045 AU
min. Earth dist.	-4736 Jan 19 j 09:29	24°♄09'49	8.84746 AU		-4730 Apr 18 j 00:57	30°♄	
direct	-4736 Mar 30 j 11:25	20°♄44'44		direct	-4730 Jun 09 j 07:04	28°♄03'37	
evening set	-4736 Jul 13 j 10:15	28°♄07'47			-4730 Jul 29 j 14:38	0°♄	
	-4736 Jul 29 j 07:08	0°♄		evening set	-4730 Sep 18 j 16:35	4°♄58'35	
				max. Earth dist.	-4730 Oct 04 j 09:55	6°♄47'18	11.21397 AU

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 15

Attention, astronomical year style is used: The year -4730 in astronomical counting style is the year 4731 BCE in historical counting style.

conjunction	-4730 Oct 05 j 00:58	6° $\cap$ 51'40	2°22'28	morning rise	-4724 Dec 28 j 10:39	18° $\cap$ 07'14	
minimum elong	-4730 Oct 05 j 00:59	6° $\cap$ 51'41	2°22'34	retrograde	-4723 Apr 12 j 22:56	25° $\cap$ 52'29	
morning rise	-4730 Oct 21 j 08:25	8° $\cap$ 44'34		opposition	-4723 Jun 22 j 07:33	22° $\cap$ 26'39	0°06'57
retrograde	-4729 Jan 29 j 15:46	15° $\cap$ 36'50		min. Earth dist.	-4723 Jun 22 j 17:11	22° $\cap$ 24'47	8.50243 AU
opposition	-4729 Apr 10 j 11:39	12° $\cap$ 20'28	2°49'04	desc. node	-4723 Aug 27 j 14:06	19° $\cap$ 05'27	
min. Earth dist.	-4729 Apr 11 j 01:43	12° $\cap$ 17'54	9.19450 AU	direct	-4723 Aug 29 j 10:03	19° $\cap$ 05'17	
direct	-4729 Jun 20 j 18:53	9° $\cap$ 02'28		evening set	-4723 Dec 07 j 04:30	26° $\cap$ 33'04	
evening set	-4729 Sep 29 j 16:17	15° $\cap$ 57'40					
max. Earth dist.	-4729 Oct 15 j 07:55	17° $\cap$ 46'30	11.16414 AU	conjunction	-4723 Dec 24 j 06:00	28° $\cap$ 41'03	0°-10'-8
				minimum elong	-4723 Dec 24 j 05:59	28° $\cap$ 41'03	0°10'20
conjunction	-4729 Oct 16 j 00:39	17° $\cap$ 51'24	2°13'55	behind sun begin	-4723 Dec 24 j 00:20	28° $\cap$ 39'18	
minimum elong	-4729 Oct 16 j 00:41	17° $\cap$ 51'24	2°14'00	behind sun end	-4723 Dec 24 j 11:37	28° $\cap$ 42'48	
morning rise	-4729 Nov 01 j 09:09	19° $\cap$ 45'13		max. Earth dist.	-4723 Dec 23 j 20:21	28° $\cap$ 38'02	10.42718 AU
retrograde	-4728 Feb 10 j 08:54	26° $\cap$ 42'42			-4722 Jan 03 j 17:12	0° $\bowtie$	
opposition	-4728 Apr 21 j 09:36	23° $\cap$ 25'15	2°35'41	morning rise	-4722 Jan 10 j 12:14	0° $\bowtie$ 50'38	
min. Earth dist.	-4728 Apr 22 j 00:24	23° $\cap$ 22'32	9.13049 AU	retrograde	-4722 Apr 26 j 22:01	8° $\bowtie$ 48'20	
direct	-4728 Jul 01 j 08:30	20° $\cap$ 07'15		opposition	-4722 Jul 05 j 19:32	5° $\bowtie$ 20'45	0°-33'-9
evening set	-4728 Oct 09 j 17:50	27° $\cap$ 04'07		min. Earth dist.	-4722 Jul 06 j 01:55	5° $\bowtie$ 19'30	8.35061 AU
max. Earth dist.	-4728 Oct 25 j 10:55	28° $\cap$ 54'14	11.08747 AU	direct	-4722 Sep 11 j 06:49	1° $\bowtie$ 58'11	
				evening set	-4722 Dec 20 j 10:15	9° $\bowtie$ 36'15	
conjunction	-4728 Oct 26 j 03:21	28° $\cap$ 59'04	2°00'16				
minimum elong	-4728 Oct 26 j 03:24	28° $\cap$ 59'05	2°00'17	conjunction	-4721 Jan 06 j 15:51	11° $\bowtie$ 47'35	0°-42'-28
	-4728 Nov 03 j 18:38	0° $\underline{\Delta}$		minimum elong	-4721 Jan 06 j 15:49	11° $\bowtie$ 47'34	0°42'42
morning rise	-4728 Nov 11 j 13:43	0° $\underline{\Delta}$ 54'22		max. Earth dist.	-4721 Jan 06 j 09:07	11° $\bowtie$ 45'26	10.27771 AU
retrograde	-4727 Feb 21 j 10:56	7° $\underline{\Delta}$ 58'40		morning rise	-4721 Jan 24 j 02:39	14° $\bowtie$ 00'38	
opposition	-4727 May 03 j 11:32	4° $\underline{\Delta}$ 39'50	2°16'11	retrograde	-4721 May 11 j 07:34	22° $\bowtie$ 10'41	
min. Earth dist.	-4727 May 04 j 01:54	4° $\underline{\Delta}$ 37'12	9.04074 AU	opposition	-4721 Jul 19 j 15:47	18° $\bowtie$ 41'32	-1°-12'-59
direct	-4727 Jul 13 j 00:19	1° $\underline{\Delta}$ 21'37		min. Earth dist.	-4721 Jul 19 j 19:02	18° $\bowtie$ 40'53	8.20606 AU
evening set	-4727 Oct 20 j 23:32	8° $\underline{\Delta}$ 21'35		direct	-4721 Sep 24 j 12:02	15° $\bowtie$ 17'41	
				evening set	-4720 Jan 03 j 05:53	23° $\bowtie$ 06'44	
conjunction	-4727 Nov 06 j 11:00	10° $\underline{\Delta}$ 18'19	1°41'44				
minimum elong	-4727 Nov 06 j 11:03	10° $\underline{\Delta}$ 18'20	1°41'42	conjunction	-4720 Jan 20 j 15:33	25° $\bowtie$ 21'18	-1°-13'-29
max. Earth dist.	-4727 Nov 05 j 18:42	10° $\underline{\Delta}$ 13'28	10.98663 AU	minimum elong	-4720 Jan 20 j 15:30	25° $\bowtie$ 21'17	1°13'44
morning rise	-4727 Nov 23 j 00:12	12° $\underline{\Delta}$ 15'40		max. Earth dist.	-4720 Jan 20 j 12:11	25° $\bowtie$ 20'13	10.13937 AU
retrograde	-4726 Mar 05 j 18:01	19° $\underline{\Delta}$ 28'14		morning rise	-4720 Feb 07 j 06:41	27° $\bowtie$ 37'39	
opposition	-4726 May 15 j 18:24	16° $\underline{\Delta}$ 07'49	1°50'54		-4720 Feb 26 j 14:06	0° $\bowtie$	
min. Earth dist.	-4726 May 16 j 08:23	16° $\underline{\Delta}$ 05'13	8.92846 AU	retrograde	-4720 May 25 j 02:00	5° $\bowtie$ 59'03	
direct	-4726 Jul 24 j 16:43	12° $\underline{\Delta}$ 49'07		opposition	-4720 Aug 01 j 19:48	2° $\bowtie$ 28'36	-1°-50'-3
evening set	-4726 Nov 01 j 11:11	19° $\underline{\Delta}$ 53'47		min. Earth dist.	-4720 Aug 01 j 20:05	2° $\bowtie$ 28'33	8.07708 AU
max. Earth dist.	-4726 Nov 17 j 08:38	21° $\underline{\Delta}$ 47'45	10.86524 AU		-4720 Sep 04 j 23:14	30° $\bowtie$	
				direct	-4720 Oct 07 j 03:47	29° $\bowtie$ 03'23	
conjunction	-4726 Nov 18 j 01:14	21° $\underline{\Delta}$ 52'45	1°18'43		-4720 Nov 07 j 21:55	0° $\bowtie$	
minimum elong	-4726 Nov 18 j 01:17	21° $\underline{\Delta}$ 52'46	1°18'38	evening set	-4719 Jan 16 j 15:14	7° $\bowtie$ 03'31	
morning rise	-4726 Dec 04 j 18:10	23° $\underline{\Delta}$ 52'39					
	-4725 Feb 06 j 21:46	0° $\cap$		conjunction	-4719 Feb 03 j 04:55	9° $\bowtie$ 21'04	-1°-41'-4
retrograde	-4725 Mar 18 j 09:51	1° $\cap$ 14'56		minimum elong	-4719 Feb 03 j 04:51	9° $\bowtie$ 21'03	1°41'19
	-4725 Apr 27 j 18:14	30° $\bowtie$		max. Earth dist.	-4719 Feb 03 j 05:37	9° $\bowtie$ 21'18	10.02045 AU
opposition	-4725 May 28 j 07:34	27° $\underline{\Delta}$ 52'47	1°20'21	morning rise	-4719 Feb 20 j 23:52	11° $\bowtie$ 40'19	
min. Earth dist.	-4725 May 28 j 21:14	27° $\underline{\Delta}$ 50'13	8.79776 AU	retrograde	-4719 Jun 09 j 02:20	20° $\bowtie$ 11'02	
direct	-4725 Aug 05 j 16:01	24° $\underline{\Delta}$ 33'22		opposition	-4719 Aug 16 j 06:28	16° $\bowtie$ 39'41	-2°-21'-34
	-4725 Oct 29 j 07:23	0° $\cap$		min. Earth dist.	-4719 Aug 16 j 03:40	16° $\bowtie$ 40'15	7.97166 AU
evening set	-4725 Nov 13 j 06:31	1° $\cap$ 44'16		direct	-4719 Oct 21 j 06:37	13° $\bowtie$ 13'09	
				evening set	-4718 Jan 31 j 13:20	21° $\bowtie$ 23'32	
conjunction	-4725 Nov 29 j 23:53	3° $\cap$ 45'55	0°51'49				
minimum elong	-4725 Nov 29 j 23:55	3° $\cap$ 45'56	0°51'41	conjunction	-4718 Feb 18 j 06:44	23° $\bowtie$ 43'35	-2°-3'-5
max. Earth dist.	-4725 Nov 29 j 08:32	3° $\cap$ 41'14	10.72778 AU	minimum elong	-4718 Feb 18 j 06:41	23° $\bowtie$ 43'34	2°03'19
morning rise	-4725 Dec 16 j 21:02	5° $\cap$ 48'47		max. Earth dist.	-4718 Feb 18 j 12:02	23° $\bowtie$ 45'21	9.92876 AU
retrograde	-4724 Mar 30 j 11:32	13° $\cap$ 22'04		morning rise	-4718 Mar 08 j 04:48	26° $\bowtie$ 05'09	
opposition	-4724 Jun 09 j 03:46	9° $\cap$ 58'05	0°45'20		-4718 Apr 09 j 08:31	0° $\approx$	
min. Earth dist.	-4724 Jun 09 j 16:00	9° $\cap$ 55'45	8.65376 AU	retrograde	-4718 Jun 24 j 06:38	4° $\approx$ 42'10	
direct	-4724 Aug 16 j 21:09	6° $\cap$ 37'46		opposition	-4718 Aug 30 j 22:00	1° $\approx$ 10'19	-2°-44'-51
evening set	-4724 Nov 24 j 11:43	13° $\cap$ 56'25		min. Earth dist.	-4718 Aug 30 j 15:57	1° $\approx$ 11'35	7.89697 AU
	-4724 Dec 03 j 03:34	15° $\cap$			-4718 Sep 14 j 07:01	30° $\bowtie$	
				direct	-4718 Nov 04 j 17:31	27° $\bowtie$ 42'37	
conjunction	-4724 Dec 11 j 09:01	16° $\cap$ 01'07	0°21'50		-4718 Dec 24 j 15:12	0° $\approx$	
minimum elong	-4724 Dec 11 j 09:01	16° $\cap$ 01'07	0°21'40	evening set	-4717 Feb 15 j 21:42	6° $\approx$ 01'26	
max. Earth dist.	-4724 Dec 10 j 20:18	15° $\cap$ 57'11	10.57964 AU				

Attention, astronomical year style is used: The year -4717 in astronomical counting style is the year 4718 BCE in historical counting style.

conjunction	-4717 Mar 05 j 18:31	8° $\approx$ 23'22	-2°-17'-35	min. Earth dist.	-4712 Nov 23 j 01:57	28° $\Upsilon$ 08'36	8.20878 AU
minimum elong	-4717 Mar 05 j 18:29	8° $\approx$ 23'22	2°17'48	direct	-4711 Jan 30 j 16:50	24° $\Upsilon$ 36'54	
max. Earth dist.	-4717 Mar 06 j 04:41	8° $\approx$ 26'46	9.87102 AU		-4711 Apr 24 j 07:51	0° $\delta$	
morning rise	-4717 Mar 23 j 19:01	10° $\approx$ 46'29		evening set	-4711 May 17 j 02:15	2° $\delta$ 42'22	
	-4717 Apr 27 j 13:40	15° $\approx$					
retrograde	-4717 Jul 09 j 12:42	19° $\approx$ 25'55		conjunction	-4711 Jun 04 j 02:42	4° $\delta$ 58'16	0°-48'-46
opposition	-4717 Sep 14 j 16:15	15° $\approx$ 54'03	-2°-57'-41	minimum elong	-4711 Jun 04 j 02:44	4° $\delta$ 58'17	0°48'40
min. Earth dist.	-4717 Sep 14 j 06:52	15° $\approx$ 56'00	7.85856 AU	max. Earth dist.	-4711 Jun 04 j 17:05	5° $\delta$ 02'49	10.27882 AU
	-4717 Sep 25 j 13:25	15° $\approx$		morning rise	-4711 Jun 21 j 23:18	7° $\delta$ 12'53	
direct	-4717 Nov 19 j 10:58	12° $\approx$ 25'21		retrograde	-4711 Oct 01 j 07:45	14° $\delta$ 55'21	
	-4716 Jan 11 j 16:31	15° $\approx$		opposition	-4711 Dec 07 j 01:58	11° $\delta$ 31'24	0°-40'-55
evening set	-4716 Mar 02 j 12:57	20° $\approx$ 49'54		min. Earth dist.	-4711 Dec 06 j 15:31	11° $\delta$ 33'30	8.35001 AU
				direct	-4710 Feb 13 j 21:43	8° $\delta$ 03'00	
conjunction	-4716 Mar 20 j 12:45	23° $\approx$ 12'56	-2°-23'-13		-4710 May 23 j 01:11	15° $\delta$	
minimum elong	-4716 Mar 20 j 12:45	23° $\approx$ 12'56	2°23'23	evening set	-4710 May 31 j 04:41	15° $\delta$ 58'51	
max. Earth dist.	-4716 Mar 21 j 03:15	23° $\approx$ 17'47	9.85172 AU				
morning rise	-4716 Apr 07 j 14:59	25° $\approx$ 36'45		conjunction	-4710 Jun 18 j 01:45	18° $\delta$ 11'36	0°-16'-32
	-4716 May 13 j 21:03	0° $\times$		minimum elong	-4710 Jun 18 j 01:46	18° $\delta$ 11'36	0°16'23
retrograde	-4716 Jul 23 j 16:51	4° $\times$ 14'13		max. Earth dist.	-4710 Jun 18 j 13:18	18° $\delta$ 15'11	10.42441 AU
opposition	-4716 Sep 28 j 10:38	0° $\times$ 42'48	-2°-58'-45	morning rise	-4710 Jul 05 j 18:13	20° $\delta$ 22'51	
min. Earth dist.	-4716 Sep 27 j 22:27	0° $\times$ 45'21	7.85930 AU	retrograde	-4710 Oct 14 j 02:39	27° $\delta$ 52'48	
	-4716 Oct 07 j 00:04	30° $\approx$		opposition	-4710 Dec 20 j 05:41	24° $\delta$ 30'40	0°00'-46
direct	-4716 Dec 03 j 08:49	27° $\approx$ 13'23		min. Earth dist.	-4710 Dec 19 j 20:51	24° $\delta$ 32'25	8.49755 AU
	-4715 Jan 28 j 01:22	0° $\times$		asc. node	-4710 Dec 27 j 17:13	23° $\delta$ 55'19	
evening set	-4715 Mar 18 j 07:05	5° $\times$ 40'20		direct	-4709 Feb 27 j 18:51	21° $\delta$ 03'19	
				evening set	-4709 Jun 13 j 19:01	28° $\delta$ 49'18	
conjunction	-4715 Apr 05 j 09:09	8° $\times$ 03'35	-2°-19'-24		-4709 Jun 23 j 12:18	0° $\Pi$	
minimum elong	-4715 Apr 05 j 09:12	8° $\times$ 03'36	2°19'31				
max. Earth dist.	-4715 Apr 06 j 02:47	8° $\times$ 09'27	9.87238 AU	conjunction	-4709 Jul 01 j 11:49	0° $\Pi$ 58'41	0°15'40
morning rise	-4715 Apr 23 j 12:16	10° $\times$ 27'09		minimum elong	-4709 Jul 01 j 11:48	0° $\Pi$ 58'41	0°15'51
retrograde	-4715 Aug 07 j 15:56	18° $\times$ 58'22		behind sun begin	-4709 Jul 01 j 11:12	0° $\Pi$ 58'30	
opposition	-4715 Oct 13 j 02:27	15° $\times$ 27'53	-2°-47'-58	behind sun end	-4709 Jul 01 j 12:24	0° $\Pi$ 58'52	
min. Earth dist.	-4715 Oct 12 j 12:33	15° $\times$ 30'48	7.89916 AU	max. Earth dist.	-4709 Jul 01 j 20:43	1° $\Pi$ 01'25	10.57261 AU
direct	-4715 Dec 18 j 08:57	11° $\times$ 58'02		morning rise	-4709 Jul 18 j 23:22	3° $\Pi$ 06'30	
evening set	-4714 Apr 02 j 23:27	20° $\times$ 23'49		retrograde	-4709 Oct 26 j 13:23	10° $\Pi$ 25'09	
				opposition	-4708 Jan 02 j 01:31	7° $\Pi$ 04'42	0°38'00
conjunction	-4714 Apr 21 j 02:55	22° $\times$ 46'23	-2°-6'-32	min. Earth dist.	-4708 Jan 01 j 18:56	7° $\Pi$ 05'59	8.64461 AU
minimum elong	-4714 Apr 21 j 02:58	22° $\times$ 46'24	2°06'35	direct	-4708 Mar 12 j 05:44	3° $\Pi$ 38'31	
max. Earth dist.	-4714 Apr 21 j 22:16	22° $\times$ 52'46	9.93139 AU	evening set	-4708 Jun 25 j 21:25	11° $\Pi$ 14'48	
morning rise	-4714 May 09 j 05:58	25° $\times$ 08'46					
	-4714 Jun 19 j 14:37	0° $\Upsilon$		conjunction	-4708 Jul 13 j 09:15	13° $\Pi$ 20'52	0°46'10
retrograde	-4714 Aug 22 j 06:17	3° $\Upsilon$ 30'12		minimum elong	-4708 Jul 13 j 09:13	13° $\Pi$ 20'51	0°46'22
opposition	-4714 Oct 27 j 13:30	0° $\Upsilon$ 01'01	-2°-26'-29	max. Earth dist.	-4708 Jul 13 j 15:23	13° $\Pi$ 22'43	10.71673 AU
min. Earth dist.	-4714 Oct 26 j 23:01	0° $\Upsilon$ 04'02	7.97508 AU	morning rise	-4708 Jul 30 j 15:33	15° $\Pi$ 25'18	
	-4714 Oct 27 j 18:23	30° $\approx$ $\times$		retrograde	-4708 Nov 06 j 16:47	22° $\Pi$ 34'13	
direct	-4713 Jan 02 j 08:29	26° $\times$ 31'03		opposition	-4707 Jan 13 j 14:30	19° $\Pi$ 15'15	1°13'47
	-4713 Mar 07 j 10:07	0° $\Upsilon$		min. Earth dist.	-4707 Jan 13 j 11:04	19° $\Pi$ 15'54	8.78475 AU
evening set	-4713 Apr 18 j 09:53	4° $\Upsilon$ 52'20		direct	-4707 Mar 25 j 06:44	15° $\Pi$ 50'17	
				evening set	-4707 Jul 08 j 12:22	23° $\Pi$ 17'25	
conjunction	-4713 May 06 j 13:38	7° $\Upsilon$ 13'20	-1°-45'-52				
minimum elong	-4713 May 06 j 13:42	7° $\Upsilon$ 13'22	1°45'52	conjunction	-4707 Jul 25 j 18:50	25° $\Pi$ 20'19	1°13'48
max. Earth dist.	-4713 May 07 j 09:04	7° $\Upsilon$ 19'40	10.02403 AU	minimum elong	-4707 Jul 25 j 18:47	25° $\Pi$ 20'18	1°14'02
morning rise	-4713 May 24 j 15:39	9° $\Upsilon$ 33'44		max. Earth dist.	-4707 Jul 25 j 21:10	25° $\Pi$ 21'01	10.85061 AU
retrograde	-4713 Sep 05 j 09:27	17° $\Upsilon$ 42'55		morning rise	-4707 Aug 11 j 19:59	27° $\Pi$ 21'40	
opposition	-4713 Nov 10 j 17:46	14° $\Upsilon$ 15'19	-1°-56'-23		-4707 Sep 04 j 13:06	0° $\delta$	
min. Earth dist.	-4713 Nov 10 j 04:07	14° $\Upsilon$ 18'08	8.08102 AU	retrograde	-4707 Nov 18 j 10:49	4° $\delta$ 22'35	
direct	-4712 Jan 17 j 03:56	10° $\Upsilon$ 45'32		opposition	-4706 Jan 25 j 21:17	1° $\delta$ 04'50	1°45'18
evening set	-4712 May 02 j 11:34	18° $\Upsilon$ 59'44		min. Earth dist.	-4706 Jan 25 j 20:57	1° $\delta$ 04'54	8.91212 AU
					-4706 Feb 09 j 09:34	30° $\approx$ $\Pi$	
conjunction	-4712 May 20 j 14:19	21° $\Upsilon$ 18'27	-1°-19'-15	direct	-4706 Apr 07 j 00:44	27° $\Pi$ 41'03	
minimum elong	-4712 May 20 j 14:23	21° $\Upsilon$ 18'29	1°19'11		-4706 Jun 01 j 03:02	0° $\delta$	
max. Earth dist.	-4712 May 21 j 07:46	21° $\Upsilon$ 24'03	10.14275 AU	evening set	-4706 Jul 20 j 17:08	4° $\delta$ 59'59	
morning rise	-4712 Jun 07 j 14:10	23° $\Upsilon$ 36'11					
	-4712 Aug 07 j 20:59	0° $\delta$		conjunction	-4706 Aug 06 j 18:18	7° $\delta$ 00'00	1°37'40
retrograde	-4712 Sep 18 j 01:44	1° $\delta$ 31'58		minimum elong	-4706 Aug 06 j 18:15	6° $\delta$ 59'59	1°37'55
	-4712 Oct 29 j 21:44	30° $\approx$ $\Upsilon$		max. Earth dist.	-4706 Aug 06 j 16:41	6° $\delta$ 59'32	10.96902 AU
opposition	-4712 Nov 23 j 13:59	28° $\approx$ $\Upsilon$ 06'09	-1°-20'-18	morning rise	-4706 Aug 23 j 14:43	8° $\delta$ 58'38	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 17

Attention, astronomical year style is used: The year -4706 in astronomical counting style is the year 4707 BCE in historical counting style.

retrograde	-4706 Nov 30 j 01:04	15° $\mathfrak{E}$ 53'22		retrograde	-4699 Feb 04 j 18:21	22° $\mathfrak{M}$ 12'19	
opposition	-4705 Feb 06 j 22:41	12° $\mathfrak{E}$ 36'33	2°11'42	opposition	-4699 Apr 16 j 16:43	18° $\mathfrak{M}$ 54'59	2°42'18
min. Earth dist.	-4705 Feb 07 j 00:45	12° $\mathfrak{E}$ 36'10	9.02172 AU	min. Earth dist.	-4699 Apr 17 j 05:18	18° $\mathfrak{M}$ 52'41	9.15136 AU
direct	-4705 Apr 19 j 11:45	9° $\mathfrak{E}$ 13'54		direct	-4699 Jun 26 j 19:36	15° $\mathfrak{M}$ 36'44	
evening set	-4705 Aug 01 j 12:53	16° $\mathfrak{E}$ 25'40		evening set	-4699 Oct 05 j 09:55	22° $\mathfrak{M}$ 32'56	
conjunction	-4705 Aug 18 j 09:17	18° $\mathfrak{E}$ 23'16	1°57'09	conjunction	-4699 Oct 21 j 18:50	24° $\mathfrak{M}$ 27'22	2°06'47
minimum elong	-4705 Aug 18 j 09:15	18° $\mathfrak{E}$ 23'15	1°57'23	minimum elong	-4699 Oct 21 j 18:53	24° $\mathfrak{M}$ 27'23	2°06'50
max. Earth dist.	-4705 Aug 18 j 04:52	18° $\mathfrak{E}$ 21'58	11.06751 AU	max. Earth dist.	-4699 Oct 21 j 03:23	24° $\mathfrak{M}$ 22'50	11.11647 AU
morning rise	-4705 Sep 04 j 01:20	20° $\mathfrak{E}$ 19'36		morning rise	-4699 Nov 07 j 04:20	26° $\mathfrak{M}$ 22'02	
retrograde	-4705 Dec 11 j 11:55	27° $\mathfrak{E}$ 10'01		retrograde	-4699 Dec 11 j 12:31	0° $\mathfrak{E}$	
opposition	-4704 Feb 18 j 20:16	23° $\mathfrak{E}$ 53'48	2°32'25	retrograde	-4698 Feb 16 j 16:20	3° $\mathfrak{E}$ 23'19	
min. Earth dist.	-4704 Feb 19 j 00:17	23° $\mathfrak{E}$ 53'04	9.10949 AU	opposition	-4698 Apr 28 j 16:52	0° $\mathfrak{E}$ 04'58	2°25'20
direct	-4704 Apr 30 j 14:36	20° $\mathfrak{E}$ 32'15		min. Earth dist.	-4698 Apr 29 j 06:41	0° $\mathfrak{E}$ 02'26	9.07828 AU
evening set	-4704 Aug 12 j 01:07	27° $\mathfrak{E}$ 38'02		direct	-4698 Apr 29 j 19:54	30° $\mathfrak{R}$ $\mathfrak{M}$	
conjunction	-4704 Aug 28 j 17:22	29° $\mathfrak{E}$ 33'40	2°11'48	direct	-4698 Jul 08 j 09:18	26° $\mathfrak{M}$ 46'48	
minimum elong	-4704 Aug 28 j 17:20	29° $\mathfrak{E}$ 33'39	2°12'01	evening set	-4698 Sep 11 j 02:35	0° $\mathfrak{E}$	
max. Earth dist.	-4704 Aug 28 j 11:01	29° $\mathfrak{E}$ 31'49	11.14265 AU	max. Earth dist.	-4698 Oct 16 j 13:45	3° $\mathfrak{E}$ 45'23	
	-4704 Sep 01 j 11:48	0° $\mathfrak{Q}$			-4698 Nov 01 j 08:11	5° $\mathfrak{E}$ 36'34	11.03180 AU
morning rise	-4704 Sep 14 j 05:41	1° $\mathfrak{Q}$ 28'15		conjunction	-4698 Nov 02 j 00:08	5° $\mathfrak{E}$ 41'18	1°50'16
retrograde	-4704 Dec 21 j 21:26	8° $\mathfrak{Q}$ 16'10		minimum elong	-4698 Nov 02 j 00:10	5° $\mathfrak{E}$ 41'19	1°50'15
opposition	-4703 Mar 01 j 15:16	5° $\mathfrak{Q}$ 00'19	2°47'04	morning rise	-4698 Nov 18 j 12:08	7° $\mathfrak{E}$ 37'44	
min. Earth dist.	-4703 Mar 01 j 21:54	4° $\mathfrak{Q}$ 59'06	9.17258 AU	retrograde	-4697 Feb 28 j 19:10	14° $\mathfrak{E}$ 46'32	
direct	-4703 May 12 j 12:02	1° $\mathfrak{Q}$ 39'43		opposition	-4697 May 10 j 21:29	11° $\mathfrak{E}$ 26'56	2°02'25
evening set	-4703 Aug 23 j 07:41	8° $\mathfrak{Q}$ 40'49		min. Earth dist.	-4697 May 11 j 11:15	11° $\mathfrak{E}$ 24'23	8.98150 AU
conjunction	-4703 Sep 08 j 20:26	10° $\mathfrak{Q}$ 35'03	2°21'21	direct	-4697 Jul 20 j 01:19	8° $\mathfrak{E}$ 08'36	
minimum elong	-4703 Sep 08 j 20:25	10° $\mathfrak{Q}$ 35'02	2°21'32	evening set	-4697 Oct 27 j 22:34	15° $\mathfrak{E}$ 11'06	
max. Earth dist.	-4703 Sep 08 j 11:09	10° $\mathfrak{Q}$ 32'21	11.19219 AU	conjunction	-4697 Nov 13 j 11:24	17° $\mathfrak{E}$ 09'00	1°29'04
morning rise	-4703 Sep 25 j 06:06	12° $\mathfrak{Q}$ 28'27		minimum elong	-4697 Nov 13 j 11:27	17° $\mathfrak{E}$ 09'01	1°29'00
	-4703 Oct 18 j 14:53	15° $\mathfrak{Q}$		max. Earth dist.	-4697 Nov 12 j 20:35	17° $\mathfrak{E}$ 04'34	10.92505 AU
retrograde	-4702 Jan 02 j 04:39	19° $\mathfrak{Q}$ 15'37		morning rise	-4697 Nov 30 j 02:35	19° $\mathfrak{E}$ 07'42	
opposition	-4702 Mar 13 j 08:42	15° $\mathfrak{Q}$ 59'49	2°55'27	retrograde	-4696 Mar 12 j 08:35	26° $\mathfrak{E}$ 25'31	
min. Earth dist.	-4702 Mar 13 j 18:06	15° $\mathfrak{Q}$ 58'06	9.20911 AU	opposition	-4696 May 22 j 07:55	23° $\mathfrak{E}$ 04'26	1°33'59
	-4702 Mar 27 j 04:33	15° $\mathfrak{R}$ $\mathfrak{Q}$		min. Earth dist.	-4696 May 22 j 20:21	23° $\mathfrak{E}$ 02'07	8.86443 AU
direct	-4702 May 24 j 04:09	12° $\mathfrak{Q}$ 40'03		direct	-4696 Jul 30 j 23:27	19° $\mathfrak{E}$ 45'44	
	-4702 Jul 18 j 20:18	15° $\mathfrak{Q}$		evening set	-4696 Nov 07 j 14:22	26° $\mathfrak{E}$ 53'36	
evening set	-4702 Sep 03 j 10:02	19° $\mathfrak{Q}$ 37'50		conjunction	-4696 Nov 24 j 06:19	28° $\mathfrak{E}$ 53'58	1°03'43
conjunction	-4702 Sep 19 j 20:14	21° $\mathfrak{Q}$ 31'13	2°25'39	minimum elong	-4696 Nov 24 j 06:21	28° $\mathfrak{E}$ 53'58	1°03'36
minimum elong	-4702 Sep 19 j 20:14	21° $\mathfrak{Q}$ 31'13	2°25'48	max. Earth dist.	-4696 Nov 23 j 16:48	28° $\mathfrak{E}$ 49'52	10.79997 AU
max. Earth dist.	-4702 Sep 19 j 08:05	21° $\mathfrak{Q}$ 27'42	11.21472 AU		-4696 Dec 03 j 08:25	0° $\mathfrak{M}$	
morning rise	-4702 Oct 06 j 04:23	23° $\mathfrak{Q}$ 24'03		morning rise	-4696 Dec 11 j 01:22	0° $\mathfrak{M}$ 55'23	
	-4702 Dec 28 j 18:44	0° $\mathfrak{M}$		retrograde	-4695 Mar 25 j 07:24	8° $\mathfrak{M}$ 23'29	
retrograde	-4701 Jan 13 j 13:17	0° $\mathfrak{M}$ 12'15		opposition	-4695 Jun 04 j 00:58	5° $\mathfrak{M}$ 00'48	1°00'43
	-4701 Jan 29 j 12:51	30° $\mathfrak{R}$ $\mathfrak{Q}$		min. Earth dist.	-4695 Jun 04 j 11:48	4° $\mathfrak{M}$ 58'45	8.73137 AU
opposition	-4701 Mar 25 j 01:51	26° $\mathfrak{Q}$ 56'12	2°57'28	direct	-4695 Aug 12 j 00:27	1° $\mathfrak{M}$ 41'29	
min. Earth dist.	-4701 Mar 25 j 12:50	26° $\mathfrak{Q}$ 54'12	9.21783 AU	evening set	-4695 Nov 19 j 15:18	8° $\mathfrak{M}$ 56'12	
direct	-4701 Jun 04 j 19:18	23° $\mathfrak{Q}$ 37'07		conjunction	-4695 Dec 06 j 10:44	10° $\mathfrak{M}$ 59'23	0°34'55
	-4701 Sep 09 j 12:52	0° $\mathfrak{M}$		minimum elong	-4695 Dec 06 j 10:45	10° $\mathfrak{M}$ 59'24	0°34'46
evening set	-4701 Sep 14 j 09:56	0° $\mathfrak{M}$ 32'58		max. Earth dist.	-4695 Dec 05 j 21:58	10° $\mathfrak{M}$ 55'28	10.66129 AU
conjunction	-4701 Sep 30 j 18:45	2° $\mathfrak{M}$ 26'07	2°24'38	morning rise	-4695 Dec 23 j 10:14	13° $\mathfrak{M}$ 03'54	
minimum elong	-4701 Sep 30 j 18:46	2° $\mathfrak{M}$ 26'07	2°24'45		-4694 Jan 08 j 23:20	15° $\mathfrak{M}$	
max. Earth dist.	-4701 Sep 30 j 05:36	2° $\mathfrak{M}$ 22'18	11.20937 AU	retrograde	-4694 Apr 07 j 14:15	20° $\mathfrak{M}$ 43'17	
morning rise	-4701 Oct 17 j 02:12	4° $\mathfrak{M}$ 18'57		opposition	-4694 Jun 17 j 01:12	17° $\mathfrak{M}$ 18'54	0°23'38
retrograde	-4700 Jan 25 j 02:17	11° $\mathfrak{M}$ 09'52		min. Earth dist.	-4694 Jun 17 j 10:48	17° $\mathfrak{M}$ 17'04	8.58754 AU
opposition	-4700 Apr 04 j 20:04	7° $\mathfrak{M}$ 53'19	2°53'04	direct	-4694 Jul 20 j 09:44	15° $\mathfrak{R}$ $\mathfrak{M}$	
min. Earth dist.	-4700 Apr 05 j 07:45	7° $\mathfrak{M}$ 51'11	9.19837 AU	direct	-4694 Aug 24 j 08:41	13° $\mathfrak{M}$ 58'41	
direct	-4700 Jun 15 j 08:08	4° $\mathfrak{M}$ 34'46			-4694 Sep 27 j 13:30	15° $\mathfrak{M}$	
evening set	-4700 Sep 24 j 09:18	11° $\mathfrak{M}$ 30'03		evening set	-4694 Dec 02 j 02:48	21° $\mathfrak{M}$ 21'45	
conjunction	-4700 Oct 10 j 17:44	13° $\mathfrak{M}$ 23'34	2°18'19	conjunction	-4694 Dec 19 j 02:09	23° $\mathfrak{M}$ 28'02	0°03'44
minimum elong	-4700 Oct 10 j 17:46	13° $\mathfrak{M}$ 23'34	2°18'24	minimum elong	-4694 Dec 19 j 02:08	23° $\mathfrak{M}$ 28'02	0°03'34
max. Earth dist.	-4700 Oct 10 j 03:52	13° $\mathfrak{M}$ 19'31	11.17627 AU	behind sun begin	-4694 Dec 18 j 19:06	23° $\mathfrak{M}$ 25'52	
morning rise	-4700 Oct 27 j 01:35	15° $\mathfrak{M}$ 17'00		behind sun end	-4694 Dec 19 j 09:10	23° $\mathfrak{M}$ 30'12	

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 18

Attention, astronomical year style is used: The year -4694 in astronomical counting style is the year 4695 BCE in historical counting style.

max. Earth dist.	-4694 Dec 18 j 14:55	23° $\mathbb{M}$ 24'33	10.51449 AU	conjunction	-4687 Mar 13 j 23:51	16° $\approx$ 57'06	-2°-21'-58
morning rise	-4693 Jan 05 j 06:19	25° $\mathbb{M}$ 35'51		minimum elong	-4687 Mar 13 j 23:50	16° $\approx$ 57'06	2°22'09
desc. node	-4693 Jan 31 j 09:46	28° $\mathbb{M}$ 37'53		max. Earth dist.	-4687 Mar 14 j 10:39	17° $\approx$ 00'42	9.86419 AU
	-4693 Feb 13 j 19:25	0° $\mathcal{A}$		morning rise	-4687 Apr 01 j 01:21	19° $\approx$ 20'31	
retrograde	-4693 Apr 21 j 07:18	3° $\mathcal{A}$ 27'15		retrograde	-4687 Jul 17 j 11:43	27° $\approx$ 58'39	
opposition	-4693 Jun 30 j 09:27	0° $\mathcal{A}$ 01'09	0°-15'-53	opposition	-4687 Sep 22 j 08:44	24° $\approx$ 26'57	-2°-59'-51
	-4693 Jun 30 j 15:22	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	-4687 Sep 21 j 23:13	24° $\approx$ 28'57	7.86036 AU
min. Earth dist.	-4693 Jun 30 j 17:23	29° $\mathbb{M}$ 59'36	8.43880 AU	direct	-4687 Nov 27 j 04:56	20° $\approx$ 57'42	
direct	-4693 Sep 06 j 02:39	26° $\mathbb{M}$ 39'49		evening set	-4686 Mar 11 j 18:02	29° $\approx$ 23'18	
	-4693 Nov 07 j 22:40	0° $\mathcal{A}$			-4686 Mar 16 j 10:05	0° $\mathcal{H}$	
evening set	-4693 Dec 15 j 02:16	4° $\mathcal{A}$ 12'25					
				conjunction	-4686 Mar 29 j 18:55	1° $\mathcal{H}$ 46'24	-2°-22'-21
conjunction	-4692 Jan 01 j 05:48	6° $\mathcal{A}$ 21'58	0°-28'-39	minimum elong	-4686 Mar 29 j 18:56	1° $\mathcal{H}$ 46'24	2°22'29
minimum elong	-4692 Jan 01 j 05:47	6° $\mathcal{A}$ 21'58	0°28'53	max. Earth dist.	-4686 Mar 30 j 08:51	1° $\mathcal{H}$ 51'02	9.86200 AU
max. Earth dist.	-4693 Dec 31 j 21:26	6° $\mathcal{A}$ 19'20	10.36557 AU	morning rise	-4686 Apr 16 j 21:47	4° $\mathcal{H}$ 10'04	
morning rise	-4692 Jan 18 j 14:34	8° $\mathcal{A}$ 33'13		retrograde	-4686 Aug 01 j 11:57	12° $\mathcal{H}$ 43'59	
retrograde	-4692 May 04 j 11:08	16° $\mathcal{A}$ 36'54		opposition	-4686 Oct 07 j 01:25	9° $\mathcal{H}$ 12'49	-2°-54'-18
opposition	-4692 Jul 13 j 01:43	13° $\mathcal{A}$ 09'09	0°-56'-2	min. Earth dist.	-4686 Oct 06 j 14:02	9° $\mathcal{H}$ 15'12	7.87778 AU
min. Earth dist.	-4692 Jul 13 j 07:16	13° $\mathcal{A}$ 08'03	8.29159 AU	direct	-4686 Dec 12 j 05:02	5° $\mathcal{H}$ 42'47	
direct	-4692 Sep 18 j 04:29	9° $\mathcal{A}$ 46'32		evening set	-4685 Mar 27 j 10:47	14° $\mathcal{H}$ 09'00	
evening set	-4692 Dec 27 j 15:13	17° $\mathcal{A}$ 29'45					
				conjunction	-4685 Apr 14 j 13:36	16° $\mathcal{H}$ 31'53	-2°-13'-26
conjunction	-4691 Jan 13 j 23:04	19° $\mathcal{A}$ 42'36	-1°00'-26	minimum elong	-4685 Apr 14 j 13:39	16° $\mathcal{H}$ 31'54	2°13'31
minimum elong	-4691 Jan 13 j 23:01	19° $\mathcal{A}$ 42'35	1°00'39	max. Earth dist.	-4685 Apr 15 j 05:50	16° $\mathcal{H}$ 37'16	9.89897 AU
max. Earth dist.	-4691 Jan 13 j 18:22	19° $\mathcal{A}$ 41'06	10.22148 AU	morning rise	-4685 May 02 j 16:58	18° $\mathcal{H}$ 54'53	
morning rise	-4691 Jan 31 j 12:08	21° $\mathcal{A}$ 57'13		retrograde	-4685 Aug 16 j 04:28	27° $\mathcal{H}$ 20'44	
	-4691 May 03 j 11:21	0° $\mathcal{B}$		opposition	-4685 Oct 21 j 14:12	23° $\mathcal{H}$ 50'32	-2°-37'-26
retrograde	-4691 May 19 j 00:38	0° $\mathcal{B}$ 12'44		min. Earth dist.	-4685 Oct 21 j 01:28	23° $\mathcal{H}$ 53'12	7.93282 AU
	-4691 Jun 03 j 15:13	30° $\mathbb{R}$ $\mathcal{A}$		direct	-4685 Dec 27 j 05:14	20° $\mathcal{H}$ 20'05	
opposition	-4691 Jul 27 j 01:42	26° $\mathcal{A}$ 43'31	-1°-34'-30	evening set	-4684 Apr 10 j 23:44	28° $\mathcal{H}$ 43'31	
min. Earth dist.	-4691 Jul 27 j 03:54	26° $\mathcal{A}$ 43'05	8.15369 AU		-4684 Apr 20 j 19:56	0° $\mathcal{V}$	
direct	-4691 Oct 01 j 15:43	23° $\mathcal{A}$ 19'32					
	-4691 Dec 31 j 23:07	0° $\mathcal{B}$		conjunction	-4684 Apr 29 j 03:31	1° $\mathcal{V}$ 05'20	-1°-56'-4
evening set	-4690 Jan 10 j 18:04	1° $\mathcal{B}$ 13'52		minimum elong	-4684 Apr 29 j 03:35	1° $\mathcal{V}$ 05'21	1°56'05
				max. Earth dist.	-4684 Apr 29 j 20:56	1° $\mathcal{V}$ 11'02	9.97205 AU
conjunction	-4690 Jan 28 j 05:59	3° $\mathcal{B}$ 29'51	-1°-29'-42	morning rise	-4684 May 17 j 06:20	3° $\mathcal{V}$ 26'45	
minimum elong	-4690 Jan 28 j 05:56	3° $\mathcal{B}$ 29'50	1°29'56	retrograde	-4684 Aug 29 j 11:45	11° $\mathcal{V}$ 41'37	
max. Earth dist.	-4690 Jan 28 j 05:10	3° $\mathcal{B}$ 29'35	10.09090 AU	opposition	-4684 Nov 03 j 21:13	8° $\mathcal{V}$ 12'46	-2°-10'-55
morning rise	-4690 Feb 14 j 22:59	5° $\mathcal{B}$ 47'33		min. Earth dist.	-4684 Nov 03 j 07:43	8° $\mathcal{V}$ 15'34	8.02122 AU
retrograde	-4690 Jun 02 j 22:04	14° $\mathcal{B}$ 13'29		direct	-4683 Jan 10 j 01:52	4° $\mathcal{V}$ 42'18	
opposition	-4690 Aug 10 j 08:57	10° $\mathcal{B}$ 43'02	-2°-8'-41	evening set	-4683 Apr 26 j 05:17	12° $\mathcal{V}$ 59'59	
min. Earth dist.	-4690 Aug 10 j 07:33	10° $\mathcal{B}$ 43'20	8.03413 AU				
direct	-4690 Oct 15 j 12:55	7° $\mathcal{B}$ 17'38		conjunction	-4683 May 14 j 08:47	15° $\mathcal{V}$ 19'55	-1°-31'-52
evening set	-4689 Jan 25 j 09:59	15° $\mathcal{B}$ 22'39		minimum elong	-4683 May 14 j 08:51	15° $\mathcal{V}$ 19'56	1°31'50
				max. Earth dist.	-4683 May 15 j 02:24	15° $\mathcal{V}$ 25'37	10.07572 AU
conjunction	-4689 Feb 12 j 01:41	17° $\mathcal{B}$ 41'24	-1°-54'-20	morning rise	-4683 Jun 01 j 09:50	17° $\mathcal{V}$ 39'01	
minimum elong	-4689 Feb 12 j 01:38	17° $\mathcal{B}$ 41'23	1°54'35	retrograde	-4683 Sep 12 j 09:43	25° $\mathcal{V}$ 41'08	
max. Earth dist.	-4689 Feb 12 j 05:01	17° $\mathcal{B}$ 42'30	9.98296 AU	opposition	-4683 Nov 17 j 20:56	22° $\mathcal{V}$ 13'53	-1°-37'-10
morning rise	-4689 Mar 01 j 22:07	20° $\mathcal{B}$ 01'43		min. Earth dist.	-4683 Nov 17 j 07:34	22° $\mathcal{V}$ 16'38	8.13680 AU
retrograde	-4689 Jun 18 j 01:07	28° $\mathcal{B}$ 35'30		direct	-4682 Jan 24 j 16:52	18° $\mathcal{V}$ 43'48	
opposition	-4689 Aug 24 j 22:02	25° $\mathcal{B}$ 04'11	-2°-35'-50	evening set	-4682 May 11 j 00:49	26° $\mathcal{V}$ 53'33	
min. Earth dist.	-4689 Aug 24 j 17:17	25° $\mathcal{B}$ 05'10	7.94135 AU				
direct	-4689 Oct 29 j 18:37	21° $\mathcal{B}$ 37'22		conjunction	-4682 May 29 j 02:42	29° $\mathcal{V}$ 10'55	-1°-2'-51
evening set	-4688 Feb 09 j 13:31	29° $\mathcal{B}$ 51'46		minimum elong	-4682 May 29 j 02:45	29° $\mathcal{V}$ 10'56	1°02'46
	-4688 Feb 10 j 14:49	0° $\approx$		max. Earth dist.	-4682 May 29 j 19:30	29° $\mathcal{V}$ 16'16	10.20294 AU
					-4682 Jun 04 j 12:44	0° $\mathcal{B}$	
conjunction	-4688 Feb 27 j 08:42	2° $\approx$ 12'43	-2°-12'-19	morning rise	-4682 Jun 16 j 00:53	1° $\mathcal{B}$ 27'06	
minimum elong	-4688 Feb 27 j 08:40	2° $\approx$ 12'42	2°12'32	retrograde	-4682 Sep 25 j 21:11	9° $\mathcal{B}$ 15'49	
max. Earth dist.	-4688 Feb 27 j 16:00	2° $\approx$ 15'08	9.90549 AU	opposition	-4682 Dec 01 j 12:31	5° $\mathcal{B}$ 50'23	0°-58'-55
morning rise	-4688 Mar 16 j 08:01	4° $\approx$ 34'59		min. Earth dist.	-4682 Dec 01 j 00:34	5° $\mathcal{B}$ 52'49	8.27222 AU
retrograde	-4688 Jul 02 j 06:57	13° $\approx$ 13'02		direct	-4681 Feb 08 j 00:37	2° $\mathcal{B}$ 21'00	
opposition	-4688 Sep 07 j 14:42	9° $\approx$ 41'17	-2°-53'-28	evening set	-4681 May 25 j 08:44	10° $\mathcal{B}$ 21'26	
min. Earth dist.	-4688 Sep 07 j 07:16	9° $\approx$ 42'50	7.88203 AU				
direct	-4688 Nov 12 j 08:35	6° $\approx$ 13'07		conjunction	-4681 Jun 12 j 07:42	12° $\mathcal{B}$ 35'46	0°-31'-9
evening set	-4687 Feb 24 j 01:32	14° $\approx$ 34'40		minimum elong	-4681 Jun 12 j 07:43	12° $\mathcal{B}$ 35'46	0°31'01
	-4687 Feb 27 j 06:54	15° $\approx$		max. Earth dist.	-4681 Jun 12 j 22:11	12° $\mathcal{B}$ 40'18	10.34577 AU
				morning rise	-4681 Jun 30 j 02:06	14° $\mathcal{B}$ 48'40	

Attention, astronomical year style is used: The year -4681 in astronomical counting style is the year 4682 BCE in historical counting style.

	-4681 Jul 01 j 15:07	15°♄		morning rise	-4675 Sep 09 j 16:01	26°♄45'03	
retrograde	-4681 Oct 08 j 20:57	22°♄24'17			-4675 Oct 10 j 05:12	0°♄	
opposition	-4681 Dec 14 j 19:48	19°♄00'47	0°-18'-48	retrograde	-4675 Dec 17 j 04:48	3°♄33'49	
min. Earth dist.	-4681 Dec 14 j 10:01	19°♄02'44	8.41945 AU	opposition	-4674 Feb 24 j 18:48	0°♄18'17	2°41'08
direct	-4680 Feb 22 j 01:08	15°♄32'23		min. Earth dist.	-4674 Feb 25 j 00:14	0°♄17'17	9.15771 AU
evening set	-4680 Jun 07 j 04:30	23°♄22'54			-4674 Feb 28 j 22:12	30°♄	
asc. node	-4680 Jun 10 j 00:19	23°♄43'28		direct	-4674 May 07 j 14:13	26°♄57'45	
					-4674 Jul 10 j 17:25	0°♄	
conjunction	-4680 Jun 24 j 23:21	25°♄33'53	0°01'19	evening set	-4674 Aug 18 j 17:17	4°♄00'46	
minimum elong	-4680 Jun 24 j 23:22	25°♄33'53	0°01'30				
behind sun begin	-4680 Jun 24 j 16:07	25°♄31'41		conjunction	-4674 Sep 04 j 07:27	5°♄55'30	2°17'38
behind sun end	-4680 Jun 25 j 06:36	25°♄36'06		minimum elong	-4674 Sep 04 j 07:26	5°♄55'29	2°17'49
max. Earth dist.	-4680 Jun 25 j 10:25	25°♄37'17	10.49609 AU	max. Earth dist.	-4674 Sep 03 j 23:25	5°♄53'10	11.18479 AU
morning rise	-4680 Jul 12 j 13:14	27°♄43'20		morning rise	-4674 Sep 20 j 18:18	7°♄49'18	
	-4680 Aug 01 j 02:18	0°♄		retrograde	-4674 Dec 28 j 13:45	14°♄36'29	
retrograde	-4680 Oct 20 j 10:28	5°♄06'55		opposition	-4673 Mar 08 j 12:39	11°♄21'13	2°52'20
opposition	-4680 Dec 26 j 18:56	1°♄45'17	0°20'49	min. Earth dist.	-4673 Mar 08 j 20:04	11°♄19'51	9.20854 AU
min. Earth dist.	-4680 Dec 26 j 11:28	1°♄46'45	8.57063 AU	direct	-4673 May 19 j 08:59	8°♄01'39	
	-4679 Jan 19 j 05:45	30°♄		evening set	-4673 Aug 29 j 21:34	15°♄00'40	
direct	-4679 Mar 06 j 16:29	28°♄18'07			-4673 Aug 29 j 19:14	15°♄	
	-4679 Apr 21 j 13:48	0°♄					
evening set	-4679 Jun 20 j 11:57	5°♄58'43		conjunction	-4673 Sep 15 j 08:54	16°♄54'17	2°24'17
				minimum elong	-4673 Sep 15 j 08:53	16°♄54'17	2°24'27
conjunction	-4679 Jul 08 j 02:00	8°♄06'19	0°32'42	max. Earth dist.	-4673 Sep 14 j 22:53	16°♄51'23	11.22095 AU
minimum elong	-4679 Jul 08 j 01:58	8°♄06'18	0°32'54	morning rise	-4673 Oct 01 j 17:27	18°♄47'13	
max. Earth dist.	-4679 Jul 08 j 09:24	8°♄08'34	10.64631 AU	retrograde	-4672 Jan 08 j 22:48	25°♄34'35	
morning rise	-4679 Jul 25 j 10:53	10°♄12'18		opposition	-4672 Mar 19 j 06:01	22°♄19'14	2°57'12
retrograde	-4679 Nov 01 j 16:00	17°♄25'21		min. Earth dist.	-4672 Mar 19 j 15:52	22°♄17'26	9.23022 AU
opposition	-4678 Jan 08 j 10:38	14°♄05'26	0°58'07	direct	-4672 May 30 j 00:21	19°♄00'25	
min. Earth dist.	-4678 Jan 08 j 04:58	14°♄06'32	8.71842 AU	evening set	-4672 Sep 08 j 22:37	25°♄56'50	
direct	-4678 Mar 19 j 22:13	10°♄39'40					
evening set	-4678 Jul 03 j 07:33	18°♄10'47		conjunction	-4672 Sep 25 j 07:55	27°♄49'57	2°25'39
				minimum elong	-4672 Sep 25 j 07:56	27°♄49'57	2°25'46
conjunction	-4678 Jul 20 j 16:29	20°♄15'06	1°01'45	max. Earth dist.	-4672 Sep 24 j 18:56	27°♄46'12	11.22746 AU
minimum elong	-4678 Jul 20 j 16:27	20°♄15'05	1°01'59	morning rise	-4672 Oct 11 j 15:26	29°♄42'37	
max. Earth dist.	-4678 Jul 20 j 21:01	20°♄16'28	10.78948 AU		-4672 Oct 14 j 04:57	0°♄	
morning rise	-4678 Aug 06 j 20:09	22°♄17'50		retrograde	-4671 Jan 19 j 09:53	6°♄31'59	
retrograde	-4678 Nov 13 j 14:08	29°♄22'05		opposition	-4671 Mar 31 j 00:00	3°♄16'13	2°55'39
opposition	-4677 Jan 20 j 19:42	26°♄03'42	1°31'40	min. Earth dist.	-4671 Mar 31 j 12:35	3°♄13'56	9.22168 AU
min. Earth dist.	-4677 Jan 20 j 16:18	26°♄04'21	8.85613 AU		-4671 Jun 03 j 22:18	30°♄	
direct	-4677 Apr 01 j 19:23	22°♄39'21		direct	-4671 Jun 10 j 13:25	29°♄57'55	
evening set	-4677 Jul 15 j 16:40	0°♄01'49			-4671 Jun 17 j 03:55	0°♄	
	-4677 Jul 15 j 10:24	0°♄		evening set	-4671 Sep 19 j 22:23	6°♄53'14	
conjunction	-4677 Aug 01 j 20:24	2°♄03'06	1°27'24	conjunction	-4671 Oct 06 j 06:43	8°♄46'27	2°21'41
minimum elong	-4677 Aug 01 j 20:21	2°♄03'05	1°27'39	minimum elong	-4671 Oct 06 j 06:45	8°♄46'28	2°21'47
max. Earth dist.	-4677 Aug 01 j 22:17	2°♄03'39	10.91940 AU	max. Earth dist.	-4671 Oct 05 j 15:14	8°♄41'57	11.20406 AU
morning rise	-4677 Aug 18 j 18:51	4°♄02'53		morning rise	-4671 Oct 22 j 14:22	10°♄39'31	
retrograde	-4677 Nov 25 j 08:13	11°♄00'08		retrograde	-4670 Jan 30 j 22:36	17°♄32'35	
opposition	-4676 Feb 01 j 23:17	7°♄43'02	2°00'27	opposition	-4670 Apr 11 j 19:31	14°♄16'04	2°47'44
min. Earth dist.	-4676 Feb 01 j 23:00	7°♄43'06	8.97814 AU	min. Earth dist.	-4670 Apr 12 j 09:37	14°♄13'30	9.18339 AU
direct	-4676 Apr 13 j 07:40	4°♄20'05		direct	-4670 Jun 22 j 02:02	10°♄58'01	
evening set	-4676 Jul 26 j 16:29	11°♄34'54		evening set	-4670 Sep 30 j 22:29	17°♄53'44	
conjunction	-4676 Aug 12 j 15:04	13°♄33'31	1°48'55	conjunction	-4670 Oct 17 j 07:05	19°♄47'40	2°12'28
minimum elong	-4676 Aug 12 j 15:01	13°♄33'30	1°49'10	minimum elong	-4670 Oct 17 j 07:07	19°♄47'40	2°12'32
max. Earth dist.	-4676 Aug 12 j 13:29	13°♄33'03	11.03111 AU	max. Earth dist.	-4670 Oct 16 j 14:57	19°♄42'57	11.15187 AU
morning rise	-4676 Aug 29 j 08:54	15°♄30'48		morning rise	-4670 Nov 02 j 15:44	21°♄41'41	
retrograde	-4676 Dec 05 j 19:31	22°♄22'52		retrograde	-4669 Feb 11 j 18:55	28°♄40'08	
opposition	-4675 Feb 12 j 22:42	19°♄06'45	2°23'45	opposition	-4669 Apr 23 j 18:06	25°♄22'32	2°33'32
min. Earth dist.	-4675 Feb 13 j 01:47	19°♄06'10	9.07991 AU	min. Earth dist.	-4669 Apr 24 j 08:18	25°♄19'56	9.11703 AU
direct	-4675 Apr 25 j 12:51	15°♄45'05		direct	-4669 Jul 03 j 16:37	22°♄04'31	
evening set	-4675 Aug 07 j 08:06	22°♄53'22		evening set	-4669 Oct 12 j 00:49	29°♄02'00	
					-4669 Oct 20 j 08:09	0°♄	
conjunction	-4675 Aug 24 j 02:01	24°♄49'46	2°05'46				
minimum elong	-4675 Aug 24 j 01:59	24°♄49'46	2°06'00	conjunction	-4669 Oct 28 j 10:35	0°♄57'13	1°58'09
max. Earth dist.	-4675 Aug 23 j 20:31	24°♄48'10	11.12065 AU	minimum elong	-4669 Oct 28 j 10:38	0°♄57'14	1°58'10

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 20

Attention, astronomical year style is used: The year -4669 in astronomical counting style is the year 4670 BCE in historical counting style.

max. Earth dist.	-4669 Oct 27 j 18:19	0°♂52'25	11.07295 AU	conjunction	-4662 Jan 08 j 06:47	14°♂02'39	0°-46'-36
morning rise	-4669 Nov 13 j 21:11	2°♂52'48		minimum elong	-4662 Jan 08 j 06:45	14°♂02'39	0°46'50
retrograde	-4668 Feb 23 j 20:29	9°♂58'11		max. Earth dist.	-4662 Jan 07 j 23:53	14°♂00'27	10.26229 AU
opposition	-4668 May 04 j 20:57	6°♂39'13	2°13'15	morning rise	-4662 Jan 25 j 18:05	16°♂16'04	
min. Earth dist.	-4668 May 05 j 11:14	6°♂36'35	9.02518 AU	retrograde	-4662 May 13 j 00:26	24°♂27'19	
direct	-4668 Jul 14 j 06:50	3°♂20'58		opposition	-4662 Jul 21 j 07:16	20°♂58'02	-1°-17'-58
evening set	-4668 Oct 22 j 07:27	10°♂21'44		min. Earth dist.	-4662 Jul 21 j 10:34	20°♂57'22	8.19192 AU
				direct	-4662 Sep 26 j 02:20	17°♂34'00	
conjunction	-4668 Nov 07 j 19:07	12°♂18'44	1°39'00	evening set	-4661 Jan 04 j 21:49	25°♂24'14	
minimum elong	-4668 Nov 07 j 19:10	12°♂18'45	1°38'58				
max. Earth dist.	-4668 Nov 07 j 02:12	12°♂13'42	10.97031 AU	conjunction	-4661 Jan 22 j 07:51	27°♂39'06	-1°-17'-16
morning rise	-4668 Nov 24 j 08:46	14°♂16'25		minimum elong	-4661 Jan 22 j 07:48	27°♂39'05	1°17'30
retrograde	-4667 Mar 07 j 05:04	21°♂30'14		max. Earth dist.	-4661 Jan 22 j 04:50	27°♂38'07	10.12660 AU
opposition	-4667 May 17 j 04:58	18°♂09'41	1°47'14	morning rise	-4661 Feb 08 j 23:22	29°♂55'44	
min. Earth dist.	-4667 May 17 j 19:23	18°♂07'00	8.91136 AU		-4661 Feb 09 j 12:48	0°♂	
direct	-4667 Jul 26 j 01:56	14°♂50'54		retrograde	-4661 May 27 j 18:13	8°♂18'05	
evening set	-4667 Nov 02 j 20:05	21°♂56'29		opposition	-4661 Aug 04 j 11:59	4°♂47'31	-1°-54'-26
				min. Earth dist.	-4661 Aug 04 j 12:13	4°♂47'29	8.06599 AU
conjunction	-4667 Nov 19 j 10:30	23°♂55'48	1°15'26	direct	-4661 Oct 09 j 20:15	1°♂22'09	
minimum elong	-4667 Nov 19 j 10:32	23°♂55'49	1°15'20	evening set	-4660 Jan 19 j 08:14	9°♂23'15	
max. Earth dist.	-4667 Nov 18 j 17:53	23°♂50'47	10.84768 AU				
morning rise	-4667 Dec 06 j 03:57	25°♂56'04		conjunction	-4660 Feb 05 j 22:18	11°♂41'03	-1°-44'-14
	-4666 Jan 12 j 21:00	0°♂		minimum elong	-4660 Feb 05 j 22:14	11°♂41'02	1°44'28
retrograde	-4666 Mar 19 j 21:55	3°♂19'42		max. Earth dist.	-4660 Feb 06 j 00:01	11°♂41'37	10.01102 AU
opposition	-4666 May 29 j 19:07	29°♂57'24	1°16'02	morning rise	-4660 Feb 23 j 17:30	14°♂00'30	
	-4666 May 29 j 05:19	30°♂♂		retrograde	-4660 Jun 10 j 18:54	22°♂31'52	
min. Earth dist.	-4666 May 30 j 08:50	29°♂54'49	8.77972 AU	opposition	-4660 Aug 17 j 23:03	19°♂00'24	-2°-25'-1
direct	-4666 Aug 07 j 01:55	26°♂37'54		min. Earth dist.	-4660 Aug 17 j 19:43	19°♂01'05	7.96423 AU
	-4666 Oct 10 j 19:22	0°♂		direct	-4660 Oct 22 j 22:48	15°♂33'44	
evening set	-4666 Nov 14 j 16:42	3°♂49'50		evening set	-4659 Feb 02 j 07:14	23°♂44'49	
conjunction	-4666 Dec 01 j 10:34	5°♂51'51	0°48'03	conjunction	-4659 Feb 20 j 01:02	26°♂05'03	-2°-5'-22
minimum elong	-4666 Dec 01 j 10:36	5°♂51'52	0°47'55	minimum elong	-4659 Feb 20 j 00:59	26°♂05'02	2°05'36
max. Earth dist.	-4666 Nov 30 j 20:08	5°♂47'26	10.70951 AU	max. Earth dist.	-4659 Feb 20 j 07:39	26°♂07'15	9.92320 AU
morning rise	-4666 Dec 18 j 08:07	7°♂55'06		morning rise	-4659 Mar 09 j 23:15	28°♂26'44	
	-4665 Mar 08 j 11:50	15°♂			-4659 Mar 22 j 03:50	0°♂	
retrograde	-4665 Apr 02 j 00:18	15°♂29'49		retrograde	-4659 Jun 26 j 00:19	7°♂03'57	
	-4665 Apr 26 j 19:50	15°♂♂		opposition	-4659 Sep 01 j 14:37	3°♂32'01	-2°-47'-5
opposition	-4665 Jun 11 j 16:15	12°♂05'39	0°40'29	min. Earth dist.	-4659 Sep 01 j 07:42	3°♂33'28	7.89354 AU
min. Earth dist.	-4665 Jun 12 j 03:45	12°♂03'27	8.63541 AU	direct	-4659 Nov 06 j 09:40	0°♂04'11	
direct	-4665 Aug 19 j 08:34	8°♂45'14		evening set	-4658 Feb 17 j 16:10	8°♂23'25	
	-4665 Nov 17 j 22:01	15°♂					
evening set	-4665 Nov 26 j 23:16	16°♂05'00		conjunction	-4658 Mar 07 j 13:18	10°♂45'26	-2°-18'-49
				minimum elong	-4658 Mar 07 j 13:16	10°♂45'26	2°19'01
conjunction	-4665 Dec 13 j 21:02	18°♂10'06	0°17'46	max. Earth dist.	-4658 Mar 08 j 00:39	10°♂49'13	9.86954 AU
minimum elong	-4665 Dec 13 j 21:03	18°♂10'06	0°17'36	morning rise	-4658 Mar 25 j 13:51	13°♂08'35	
max. Earth dist.	-4665 Dec 13 j 09:08	18°♂06'24	10.56141 AU		-4658 Apr 09 j 03:16	15°♂	
morning rise	-4665 Dec 30 j 23:04	20°♂16'36		retrograde	-4658 Jul 11 j 06:37	21°♂47'44	
retrograde	-4664 Apr 14 j 14:39	28°♂03'18		opposition	-4658 Sep 16 j 08:42	18°♂15'49	-2°-58'-29
opposition	-4664 Jun 23 j 21:10	24°♂37'18	0°01'48	min. Earth dist.	-4658 Sep 15 j 22:26	18°♂17'58	7.85916 AU
min. Earth dist.	-4664 Jun 24 j 05:50	24°♂35'37	8.48458 AU		-4658 Nov 06 j 03:52	15°♂	
desc. node	-4664 Jul 10 j 23:08	23°♂19'49		direct	-4658 Nov 21 j 03:27	14°♂47'01	
direct	-4664 Aug 30 j 22:02	21°♂15'49			-4658 Dec 06 j 02:13	15°♂	
evening set	-4664 Dec 08 j 17:32	28°♂44'46		evening set	-4657 Mar 05 j 07:22	23°♂11'37	
	-4664 Dec 18 j 18:46	0°♂					
				conjunction	-4657 Mar 23 j 07:22	25°♂34'38	-2°-23'-17
conjunction	-4664 Dec 25 j 19:21	0°♂53'07	0°-14'-20	minimum elong	-4657 Mar 23 j 07:23	25°♂34'39	2°23'27
minimum elong	-4664 Dec 25 j 19:21	0°♂53'07	0°14'33	max. Earth dist.	-4657 Mar 23 j 22:41	25°♂39'45	9.85431 AU
behind sun begin	-4664 Dec 25 j 16:11	0°♂52'08		morning rise	-4657 Apr 10 j 09:38	27°♂58'24	
behind sun end	-4664 Dec 25 j 22:31	0°♂54'06			-4657 Apr 26 j 07:57	0°♂	
max. Earth dist.	-4664 Dec 25 j 09:51	0°♂50'08	10.40991 AU	retrograde	-4657 Jul 26 j 10:10	6°♂35'09	
morning rise	-4663 Jan 12 j 02:05	3°♂03'05		opposition	-4657 Oct 01 j 02:39	3°♂03'45	-2°-58'-5
retrograde	-4663 Apr 28 j 15:12	11°♂02'11		min. Earth dist.	-4657 Sep 30 j 14:04	3°♂06'24	7.86381 AU
opposition	-4663 Jul 07 j 10:13	7°♂34'26	0°-38'-23		-4657 Nov 14 j 20:20	30°♂	
min. Earth dist.	-4663 Jul 07 j 16:07	7°♂33'16	8.33417 AU	direct	-4657 Dec 06 j 01:45	29°♂34'15	
direct	-4663 Sep 12 j 18:42	4°♂11'44			-4657 Dec 27 j 06:37	0°♂	
evening set	-4663 Dec 22 j 00:52	11°♂51'00		evening set	-4656 Mar 20 j 01:06	8°♂00'54	



Attention, astronomical year style is used: The year -4656 in astronomical counting style is the year 4657 BCE in historical counting style.

conjunction	-4656 Apr 07 j 03:18	10° <del>✕</del> 24'03	-2°-18'-19	opposition	-4651 Dec 21 j 16:00	26° <del>8</del> 35'28	0°04'01
minimum elong	-4656 Apr 07 j 03:21	10° <del>✕</del> 24'04	2°18'25	min. Earth dist.	-4651 Dec 21 j 07:18	26° <del>8</del> 37'11	8.51595 AU
max. Earth dist.	-4656 Apr 07 j 21:11	10° <del>✕</del> 29'59	9.87880 AU	direct	-4650 Mar 01 j 06:25	23° <del>8</del> 08'15	
morning rise	-4656 Apr 25 j 06:27	12° <del>✕</del> 47'29			-4650 Jun 07 j 19:13	0° <del>II</del>	
retrograde	-4656 Aug 09 j 07:39	21° <del>✕</del> 17'38		evening set	-4650 Jun 15 j 05:51	0° <del>II</del> 52'56	
opposition	-4656 Oct 14 j 17:48	17° <del>✕</del> 47'13	-2°-45'-55				
min. Earth dist.	-4656 Oct 14 j 04:05	17° <del>✕</del> 50'06	7.90726 AU	conjunction	-4650 Jul 02 j 22:12	3° <del>II</del> 01'57	0°19'28
direct	-4656 Dec 20 j 01:42	14° <del>✕</del> 17'19		minimum elong	-4650 Jul 02 j 22:12	3° <del>II</del> 01'57	0°19'39
evening set	-4655 Apr 04 j 16:48	22° <del>✕</del> 42'31		max. Earth dist.	-4650 Jul 03 j 07:11	3° <del>II</del> 04'41	10.59050 AU
				morning rise	-4650 Jul 20 j 09:11	5° <del>II</del> 09'21	
conjunction	-4655 Apr 22 j 20:16	25° <del>✕</del> 04'54	-2°-4'-26	retrograde	-4650 Oct 27 j 22:37	12° <del>II</del> 26'46	
minimum elong	-4655 Apr 22 j 20:20	25° <del>✕</del> 04'55	2°04'28	opposition	-4649 Jan 03 j 10:58	9° <del>II</del> 06'30	0°42'32
max. Earth dist.	-4655 Apr 23 j 15:17	25° <del>✕</del> 11'09	9.94121 AU	min. Earth dist.	-4649 Jan 03 j 05:19	9° <del>II</del> 07'36	8.66178 AU
morning rise	-4655 May 10 j 23:21	27° <del>✕</del> 27'05		direct	-4649 Mar 14 j 15:12	5° <del>II</del> 40'27	
	-4655 May 31 j 11:24	0° <del>Y</del>		evening set	-4649 Jun 28 j 06:59	13° <del>II</del> 15'38	
retrograde	-4655 Aug 23 j 20:11	5° <del>Y</del> 47'11					
opposition	-4655 Oct 29 j 04:03	2° <del>Y</del> 18'09	-2°-23'-15	conjunction	-4649 Jul 15 j 18:15	15° <del>II</del> 21'21	0°49'41
min. Earth dist.	-4655 Oct 28 j 14:05	2° <del>Y</del> 21'03	7.98630 AU	minimum elong	-4649 Jul 15 j 18:13	15° <del>II</del> 21'20	0°49'54
	-4655 Nov 28 j 10:49	30° <del>R</del> <del>✕</del>		max. Earth dist.	-4649 Jul 15 j 23:25	15° <del>II</del> 22'54	10.73277 AU
direct	-4654 Jan 04 j 00:13	28° <del>✕</del> 48'10		morning rise	-4649 Aug 02 j 00:06	17° <del>II</del> 25'27	
	-4654 Feb 09 j 10:40	0° <del>Y</del>		retrograde	-4649 Nov 08 j 23:12	24° <del>II</del> 33'23	
evening set	-4654 Apr 20 j 02:15	7° <del>Y</del> 08'37		opposition	-4648 Jan 15 j 23:09	21° <del>II</del> 14'36	1°17'52
				min. Earth dist.	-4648 Jan 15 j 20:42	21° <del>II</del> 15'04	8.79967 AU
conjunction	-4654 May 08 j 05:52	9° <del>Y</del> 29'23	-1°-42'-56	direct	-4648 Mar 26 j 16:51	17° <del>II</del> 49'45	
minimum elong	-4654 May 08 j 05:56	9° <del>Y</del> 29'24	1°42'54	evening set	-4648 Jul 09 j 20:59	25° <del>II</del> 16'03	
max. Earth dist.	-4654 May 09 j 00:38	9° <del>Y</del> 35'29	10.03675 AU				
morning rise	-4654 May 26 j 07:49	11° <del>Y</del> 49'30		conjunction	-4648 Jul 27 j 02:51	27° <del>II</del> 18'38	1°16'55
retrograde	-4654 Sep 06 j 22:33	19° <del>Y</del> 57'14		minimum elong	-4648 Jul 27 j 02:48	27° <del>II</del> 18'37	1°17'09
opposition	-4654 Nov 12 j 07:24	16° <del>Y</del> 29'49	-1°-52'-16	max. Earth dist.	-4648 Jul 27 j 03:45	27° <del>II</del> 18'54	10.86397 AU
min. Earth dist.	-4654 Nov 11 j 17:57	16° <del>Y</del> 32'35	8.09503 AU	morning rise	-4648 Aug 13 j 03:37	29° <del>II</del> 19'42	
direct	-4653 Jan 18 j 19:03	13° <del>Y</del> 00'06			-4648 Aug 18 j 22:58	0° <del>☾</del>	
evening set	-4653 May 05 j 02:39	21° <del>Y</del> 13'14		retrograde	-4648 Nov 19 j 18:04	6° <del>☾</del> 19'57	
				opposition	-4647 Jan 27 j 05:20	3° <del>☾</del> 02'21	1°48'49
conjunction	-4653 May 23 j 05:12	23° <del>Y</del> 31'39	-1°-15'-43	min. Earth dist.	-4647 Jan 27 j 05:16	3° <del>☾</del> 02'22	8.92397 AU
minimum elong	-4653 May 23 j 05:16	23° <del>Y</del> 31'41	1°15'39		-4647 Mar 18 j 07:23	30° <del>R</del> <del>II</del>	
max. Earth dist.	-4653 May 23 j 22:15	23° <del>Y</del> 37'07	10.15818 AU	direct	-4647 Apr 08 j 10:40	29° <del>II</del> 38'42	
morning rise	-4653 Jun 10 j 04:53	25° <del>Y</del> 49'04			-4647 Apr 29 j 10:48	0° <del>☾</del>	
	-4653 Jul 16 j 08:19	0° <del>8</del>		evening set	-4647 Jul 22 j 00:52	6° <del>☾</del> 56'58	
retrograde	-4653 Sep 20 j 13:28	3° <del>8</del> 43'17					
opposition	-4653 Nov 26 j 02:31	0° <del>8</del> 17'38	-1°-15'-38	conjunction	-4647 Aug 08 j 01:36	8° <del>☾</del> 56'46	1°40'18
min. Earth dist.	-4653 Nov 25 j 14:06	0° <del>8</del> 20'10	8.22539 AU	minimum elong	-4647 Aug 08 j 01:34	8° <del>☾</del> 56'45	1°40'33
	-4653 Nov 29 j 17:20	30° <del>R</del> <del>Y</del>		max. Earth dist.	-4647 Aug 07 j 23:28	8° <del>☾</del> 56'08	10.97906 AU
direct	-4652 Feb 02 j 07:34	26° <del>Y</del> 48'29		morning rise	-4647 Aug 24 j 21:34	10° <del>☾</del> 55'09	
	-4652 Apr 04 j 21:15	0° <del>8</del>		retrograde	-4647 Dec 01 j 08:07	17° <del>☾</del> 49'32	
evening set	-4652 May 18 j 15:56	4° <del>8</del> 52'41		opposition	-4646 Feb 08 j 06:31	14° <del>☾</del> 32'48	2°14'34
				min. Earth dist.	-4646 Feb 08 j 08:32	14° <del>☾</del> 32'26	9.02999 AU
conjunction	-4652 Jun 05 j 16:09	7° <del>8</del> 08'14	0°-44'-55	direct	-4646 Apr 20 j 19:40	11° <del>☾</del> 10'19	
minimum elong	-4652 Jun 05 j 16:12	7° <del>8</del> 08'14	0°44'48	evening set	-4646 Aug 02 j 19:56	18° <del>☾</del> 21'37	
max. Earth dist.	-4652 Jun 06 j 06:37	7° <del>8</del> 12'48	10.29654 AU				
morning rise	-4652 Jun 23 j 12:26	9° <del>8</del> 22'28		conjunction	-4646 Aug 19 j 16:02	20° <del>☾</del> 19'02	1°59'13
	-4652 Aug 15 j 09:33	15° <del>8</del>		minimum elong	-4646 Aug 19 j 15:59	20° <del>☾</del> 19'02	1°59'28
retrograde	-4652 Oct 02 j 17:25	17° <del>8</del> 03'20		max. Earth dist.	-4646 Aug 19 j 11:39	20° <del>☾</del> 17'46	11.07377 AU
	-4652 Nov 21 j 09:14	15° <del>R</del> <del>8</del>		morning rise	-4646 Sep 05 j 07:37	22° <del>☾</del> 15'14	
opposition	-4652 Dec 08 j 13:20	13° <del>8</del> 39'32	0°-36'-3	retrograde	-4646 Dec 12 j 19:33	29° <del>☾</del> 05'33	
min. Earth dist.	-4652 Dec 08 j 02:26	13° <del>8</del> 41'44	8.36832 AU	opposition	-4645 Feb 20 j 03:59	25° <del>☾</del> 49'25	2°34'35
direct	-4651 Feb 15 j 11:59	10° <del>8</del> 11'15		min. Earth dist.	-4645 Feb 20 j 08:46	25° <del>☾</del> 48'32	9.11382 AU
	-4651 May 05 j 21:30	15° <del>8</del>		direct	-4645 May 02 j 22:23	22° <del>☾</del> 27'59	
evening set	-4651 Jun 01 j 16:57	18° <del>8</del> 05'46		evening set	-4645 Aug 14 j 07:55	29° <del>☾</del> 33'31	
					-4645 Aug 18 j 04:29	0° <del>Ω</del>	
conjunction	-4651 Jun 19 j 13:43	20° <del>8</del> 18'06	0°-12'-36				
minimum elong	-4651 Jun 19 j 13:43	20° <del>8</del> 18'06	0°12'28	conjunction	-4645 Aug 30 j 23:48	1° <del>Ω</del> 29'04	2°13'16
behind sun begin	-4651 Jun 19 j 09:05	20° <del>8</del> 16'40		minimum elong	-4645 Aug 30 j 23:46	1° <del>Ω</del> 29'03	2°13'29
behind sun end	-4651 Jun 19 j 18:22	20° <del>8</del> 19'31		max. Earth dist.	-4645 Aug 30 j 16:27	1° <del>Ω</del> 26'56	11.14485 AU
max. Earth dist.	-4651 Jun 20 j 01:38	20° <del>8</del> 21'47	10.44300 AU	morning rise	-4645 Sep 16 j 11:52	3° <del>Ω</del> 23'34	
morning rise	-4651 Jul 07 j 05:38	22° <del>8</del> 28'56		retrograde	-4645 Dec 24 j 04:05	10° <del>Ω</del> 11'37	
retrograde	-4651 Oct 15 j 12:24	29° <del>8</del> 57'26		opposition	-4644 Mar 02 j 22:59	6° <del>Ω</del> 55'48	2°48'29
asc. node	-4651 Nov 13 j 13:25	29° <del>8</del> 12'53		min. Earth dist.	-4644 Mar 03 j 06:48	6° <del>Ω</del> 54'21	9.17279 AU

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 22

Attention, astronomical year style is used: The year -4644 in astronomical counting style is the year 4645 BCE in historical counting style.

direct	-4644 May 13 j 18:31	3°♊35'16		opposition	-4638 May 12 j 08:47	13°♊31'20	1°58'58
evening set	-4644 Aug 24 j 14:20	10°♊36'21		min. Earth dist.	-4638 May 12 j 22:02	13°♊28'52	8.96021 AU
				direct	-4638 Jul 21 j 12:31	10°♊12'51	
conjunction	-4644 Sep 10 j 02:45	12°♊30'33	2°22'11	evening set	-4638 Oct 29 j 08:20	17°♊16'23	
minimum elong	-4644 Sep 10 j 02:44	12°♊30'33	2°22'21				
max. Earth dist.	-4644 Sep 09 j 16:12	12°♊27'29	11.19026 AU	conjunction	-4638 Nov 14 j 21:36	19°♊14'42	1°25'55
morning rise	-4644 Sep 26 j 12:21	14°♊23'58		minimum elong	-4638 Nov 14 j 21:39	19°♊14'43	1°25'51
	-4644 Oct 01 j 20:16	15°♊		max. Earth dist.	-4638 Nov 14 j 07:06	19°♊10'21	10.90277 AU
retrograde	-4643 Jan 03 j 11:37	21°♊11'32		morning rise	-4638 Dec 01 j 13:11	21°♊13'49	
opposition	-4643 Mar 14 j 16:40	17°♊55'41	2°56'05	retrograde	-4637 Mar 14 j 22:52	28°♊33'09	
min. Earth dist.	-4643 Mar 15 j 02:31	17°♊53'53	9.20511 AU	opposition	-4637 May 24 j 20:20	25°♊11'49	1°29'48
	-4643 May 02 j 18:03	15°♊♋		min. Earth dist.	-4637 May 25 j 08:21	25°♊09'34	8.84127 AU
direct	-4643 May 25 j 12:37	14°♊35'56		direct	-4637 Aug 02 j 08:54	21°♊52'56	
	-4643 Jun 17 j 01:27	15°♊		evening set	-4637 Nov 10 j 01:27	29°♊02'01	
evening set	-4643 Sep 04 j 16:33	21°♊33'54			-4637 Nov 18 j 02:45	0°♋	
conjunction	-4643 Sep 21 j 02:40	23°♊27'20	2°25'49	conjunction	-4637 Nov 26 j 17:44	1°♋02'48	1°00'02
minimum elong	-4643 Sep 21 j 02:40	23°♊27'20	2°25'57	minimum elong	-4637 Nov 26 j 17:47	1°♋02'49	0°59'55
max. Earth dist.	-4643 Sep 20 j 14:26	23°♊23'47	11.20862 AU	max. Earth dist.	-4637 Nov 26 j 03:47	0°♋58'34	10.77631 AU
morning rise	-4643 Oct 07 j 10:43	25°♊20'14		morning rise	-4637 Dec 13 j 13:22	3°♋04'41	
	-4643 Nov 23 j 11:40	0°♋		retrograde	-4636 Mar 26 j 21:22	10°♋34'27	
retrograde	-4642 Jan 14 j 22:21	2°♋09'03		opposition	-4636 Jun 05 j 14:44	7°♋11'30	0°55'56
	-4642 Mar 10 j 18:59	30°♋♌		min. Earth dist.	-4636 Jun 06 j 01:40	7°♋09'25	8.70732 AU
opposition	-4642 Mar 26 j 10:10	28°♌52'54	2°57'16	direct	-4636 Aug 13 j 11:50	3°♋51'58	
min. Earth dist.	-4642 Mar 26 j 20:56	28°♌50'56	9.20967 AU	evening set	-4636 Nov 21 j 03:50	11°♋08'06	
direct	-4642 Jun 06 j 03:27	25°♌33'49					
	-4642 Aug 23 j 14:37	0°♋		conjunction	-4636 Dec 07 j 23:40	13°♋11'44	0°30'49
evening set	-4642 Sep 15 j 16:43	2°♋29'59		minimum elong	-4636 Dec 07 j 23:42	13°♋11'44	0°30'40
				max. Earth dist.	-4636 Dec 07 j 10:56	13°♋07'48	10.63732 AU
conjunction	-4642 Oct 02 j 01:36	4°♋23'16	2°24'07		-4636 Dec 22 j 16:35	15°♋	
minimum elong	-4642 Oct 02 j 01:37	4°♋23'17	2°24'13	morning rise	-4636 Dec 24 j 23:49	15°♋16'43	
max. Earth dist.	-4642 Oct 01 j 12:28	4°♋19'27	11.19922 AU	retrograde	-4635 Apr 09 j 06:03	22°♋57'53	
morning rise	-4642 Oct 18 j 09:02	6°♋16'15		opposition	-4635 Jun 18 j 16:21	19°♋33'14	0°18'23
retrograde	-4641 Jan 26 j 10:53	13°♋07'59		min. Earth dist.	-4635 Jun 19 j 01:59	19°♋31'23	8.56385 AU
opposition	-4641 Apr 07 j 04:51	9°♋51'17	2°52'03	direct	-4635 Aug 25 j 22:45	16°♋12'49	
min. Earth dist.	-4641 Apr 07 j 16:57	9°♋49'05	9.18626 AU	evening set	-4635 Dec 03 j 16:59	23°♋37'21	
direct	-4641 Jun 17 j 14:53	6°♋32'40		desc. node	-4635 Dec 12 j 14:41	24°♋43'23	
evening set	-4641 Sep 26 j 16:35	13°♋28'31					
max. Earth dist.	-4641 Oct 12 j 10:11	15°♋17'53	11.16237 AU	conjunction	-4635 Dec 20 j 16:52	25°♋44'06	0°00'-42
				minimum elong	-4635 Dec 20 j 16:52	25°♋44'06	0°00'54
conjunction	-4641 Oct 13 j 01:02	15°♋22'13	2°17'06	behind sun begin	-4635 Dec 20 j 09:47	25°♋41'54	
minimum elong	-4641 Oct 13 j 01:04	15°♋22'13	2°17'11	behind sun end	-4635 Dec 20 j 23:58	25°♋46'17	
morning rise	-4641 Oct 29 j 09:07	17°♋15'53		max. Earth dist.	-4635 Dec 20 j 06:45	25°♋40'57	10.49148 AU
retrograde	-4640 Feb 07 j 04:13	24°♋12'11		morning rise	-4634 Jan 06 j 21:35	27°♋52'24	
opposition	-4640 Apr 18 j 02:15	20°♋54'41	2°40'27		-4634 Jan 24 j 19:22	0°♌	
min. Earth dist.	-4640 Apr 18 j 15:47	20°♋52'12	9.13568 AU	retrograde	-4634 Apr 23 j 01:15	5°♌45'33	
direct	-4640 Jun 28 j 03:54	17°♋36'20		opposition	-4634 Jul 02 j 01:48	2°♌19'13	0°-21'-21
evening set	-4640 Oct 06 j 17:46	24°♋33'14		min. Earth dist.	-4634 Jul 02 j 09:03	2°♌17'48	8.41691 AU
max. Earth dist.	-4640 Oct 22 j 10:45	26°♋23'13	11.09926 AU		-4634 Aug 03 j 21:35	30°♋♌	
				direct	-4634 Sep 07 j 16:58	28°♋57'42	
conjunction	-4640 Oct 23 j 02:50	26°♋27'56	2°04'54		-4634 Oct 11 j 18:08	0°♌	
minimum elong	-4640 Oct 23 j 02:52	26°♋27'57	2°04'56	evening set	-4634 Dec 16 j 18:16	6°♌31'48	
morning rise	-4640 Nov 08 j 12:40	28°♋22'54					
	-4640 Nov 22 j 22:55	0°♌		conjunction	-4633 Jan 02 j 22:21	8°♌41'46	0°-33'-3
retrograde	-4639 Feb 18 j 01:38	5°♌25'23		minimum elong	-4633 Jan 02 j 22:20	8°♌41'46	0°33'16
opposition	-4639 Apr 30 j 03:16	2°♌06'48	2°22'40	max. Earth dist.	-4633 Jan 02 j 15:40	8°♌39'39	10.34504 AU
min. Earth dist.	-4639 Apr 30 j 17:22	2°♌04'13	9.05951 AU	morning rise	-4633 Jan 20 j 07:30	10°♌53'26	
	-4639 May 31 j 07:27	30°♋♍		retrograde	-4633 May 07 j 05:52	18°♌58'43	
direct	-4639 Jul 09 j 18:06	28°♋48'30		opposition	-4633 Jul 15 j 19:12	15°♌30'44	-1°-1'-25
	-4639 Aug 17 j 03:46	0°♌		min. Earth dist.	-4633 Jul 15 j 23:22	15°♌29'55	8.27300 AU
evening set	-4639 Oct 17 j 22:23	5°♌47'59		direct	-4633 Sep 20 j 20:48	12°♌07'58	
				evening set	-4633 Dec 30 j 08:58	19°♌52'32	
conjunction	-4639 Nov 03 j 09:10	7°♌44'13	1°47'43	conjunction	-4632 Jan 16 j 17:13	22°♌05'45	-1°-4'-36
minimum elong	-4639 Nov 03 j 09:13	7°♌44'14	1°47'42	minimum elong	-4632 Jan 16 j 17:10	22°♌05'44	1°04'49
max. Earth dist.	-4639 Nov 02 j 17:43	7°♌39'38	11.01177 AU	max. Earth dist.	-4632 Jan 16 j 13:45	22°♌04'38	10.20478 AU
morning rise	-4639 Nov 19 j 21:30	9°♌41'00		morning rise	-4632 Feb 03 j 06:38	24°♌20'42	
retrograde	-4638 Mar 02 j 07:53	16°♌51'13					

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 23

Attention, astronomical year style is used: The year -4632 in astronomical counting style is the year 4633 BCE in historical counting style.

	-4632 Mar 25 j 10:42	0°♄		conjunction	-4626 Apr 16 j 11:10	18°♄59'27	-2°-11'-35
retrograde	-4632 May 20 j 20:27	2°♄37'31		minimum elong	-4626 Apr 16 j 11:13	18°♄59'28	2°11'40
	-4632 Jul 17 j 23:41	30°♄♂		max. Earth dist.	-4626 Apr 17 j 04:14	19°♄05'05	9.91087 AU
opposition	-4632 Jul 28 j 20:13	29°♄08'06	-1°-39'-27	morning rise	-4626 May 04 j 14:25	21°♄22'11	
min. Earth dist.	-4632 Jul 28 j 21:10	29°♄07'55	8.13929 AU	retrograde	-4626 Aug 17 j 21:54	29°♄46'37	
direct	-4632 Oct 03 j 09:06	25°♄43'58		opposition	-4626 Oct 23 j 08:19	26°♄16'37	-2°-34'-26
	-4632 Dec 13 j 00:25	0°♄		min. Earth dist.	-4626 Oct 22 j 18:52	26°♄19'26	7.94663 AU
evening set	-4631 Jan 12 j 13:23	3°♄39'29		direct	-4626 Dec 29 j 00:05	22°♄46'18	
					-4625 Apr 04 j 18:30	0°♄	
conjunction	-4631 Jan 30 j 01:36	5°♄55'46	-1°-33'-20	evening set	-4625 Apr 13 j 19:55	1°♄08'44	
minimum elong	-4631 Jan 30 j 01:32	5°♄55'45	1°33'35				
max. Earth dist.	-4631 Jan 30 j 01:18	5°♄55'40	10.07857 AU	conjunction	-4625 May 01 j 23:47	3°♄30'19	-1°-53'-15
morning rise	-4631 Feb 16 j 18:59	8°♄13'45		minimum elong	-4625 May 01 j 23:52	3°♄30'20	1°53'15
retrograde	-4631 Jun 04 j 19:06	16°♄40'35		max. Earth dist.	-4625 May 02 j 18:02	3°♄36'17	9.98775 AU
opposition	-4631 Aug 12 j 04:15	13°♄10'03	-2°-12'-48	morning rise	-4625 May 20 j 02:23	5°♄51'25	
min. Earth dist.	-4631 Aug 12 j 02:14	13°♄10'27	8.02419 AU	retrograde	-4625 Sep 01 j 05:26	14°♄04'36	
direct	-4631 Oct 17 j 06:23	9°♄44'30		opposition	-4625 Nov 06 j 14:15	10°♄35'59	-2°-6'-50
evening set	-4630 Jan 27 j 06:44	17°♄50'32		min. Earth dist.	-4625 Nov 06 j 00:29	10°♄38'50	8.03831 AU
				direct	-4624 Jan 12 j 19:30	7°♄05'39	
conjunction	-4630 Feb 13 j 22:39	20°♄09'29	-1°-57'-11	evening set	-4624 Apr 28 j 00:12	15°♄22'06	
minimum elong	-4630 Feb 13 j 22:36	20°♄09'28	1°57'25				
max. Earth dist.	-4630 Feb 14 j 02:05	20°♄10'37	9.97523 AU	conjunction	-4624 May 16 j 03:36	17°♄41'42	-1°-28'-19
morning rise	-4630 Mar 03 j 19:25	22°♄30'00		minimum elong	-4624 May 16 j 03:40	17°♄41'44	1°28'16
	-4630 May 16 j 05:33	0°♄		max. Earth dist.	-4624 May 16 j 21:35	17°♄47'31	10.09418 AU
retrograde	-4630 Jun 19 j 22:58	1°♄04'14		morning rise	-4624 Jun 03 j 04:21	20°♄00'25	
	-4630 Jul 24 j 19:16	30°♄♂		retrograde	-4624 Sep 14 j 01:53	28°♄00'43	
opposition	-4630 Aug 26 j 17:43	27°♄32'55	-2°-38'-46	opposition	-4624 Nov 19 j 12:44	24°♄33'45	-1°-32'-22
min. Earth dist.	-4630 Aug 26 j 12:53	27°♄33'55	7.93615 AU	min. Earth dist.	-4624 Nov 18 j 23:50	24°♄36'24	8.15609 AU
direct	-4630 Oct 31 j 13:29	24°♄05'58		direct	-4623 Jan 26 j 10:16	21°♄03'47	
	-4629 Jan 23 j 19:17	0°♄		evening set	-4623 May 12 j 18:15	29°♄12'10	
evening set	-4629 Feb 11 j 11:07	2°♄21'07			-4623 May 19 j 02:47	0°♄	
conjunction	-4629 Mar 01 j 06:32	4°♄42'10	-2°-14'-6	conjunction	-4623 May 30 j 19:49	1°♄29'09	0°-58'-51
minimum elong	-4629 Mar 01 j 06:29	4°♄42'09	2°14'19	minimum elong	-4623 May 30 j 19:52	1°♄29'10	0°58'45
max. Earth dist.	-4629 Mar 01 j 13:58	4°♄44'38	9.90270 AU	max. Earth dist.	-4623 May 31 j 12:10	1°♄34'21	10.22295 AU
morning rise	-4629 Mar 19 j 06:06	7°♄04'32		morning rise	-4623 Jun 17 j 17:40	3°♄44'55	
	-4629 Jun 07 j 06:36	15°♄		retrograde	-4623 Sep 27 j 10:30	11°♄31'50	
retrograde	-4629 Jul 05 j 04:19	15°♄42'32		opposition	-4623 Dec 03 j 03:11	8°♄06'41	0°-53'-46
	-4629 Aug 02 j 01:41	15°♄		min. Earth dist.	-4623 Dec 02 j 16:03	8°♄08'56	8.29252 AU
opposition	-4629 Sep 10 j 10:35	12°♄10'52	-2°-54'-57	direct	-4622 Feb 09 j 17:51	4°♄37'26	
min. Earth dist.	-4629 Sep 10 j 03:06	12°♄12'25	7.88187 AU	evening set	-4622 May 27 j 00:25	12°♄36'26	
direct	-4629 Nov 15 j 05:15	8°♄42'39					
	-4628 Feb 10 j 15:34	15°♄		conjunction	-4622 Jun 13 j 22:53	14°♄50'19	0°-26'-57
evening set	-4628 Feb 26 j 23:29	17°♄04'31		minimum elong	-4622 Jun 13 j 22:55	14°♄50'20	0°26'49
				max. Earth dist.	-4622 Jun 14 j 12:15	14°♄54'30	10.36613 AU
conjunction	-4628 Mar 15 j 22:03	19°♄26'58	-2°-22'-33		-4622 Jun 15 j 05:49	15°♄	
minimum elong	-4628 Mar 15 j 22:03	19°♄26'58	2°22'43	morning rise	-4622 Jul 01 j 16:56	17°♄02'48	
max. Earth dist.	-4628 Mar 16 j 09:19	19°♄30'43	9.86654 AU	retrograde	-4622 Oct 10 j 08:37	24°♄36'48	
morning rise	-4628 Apr 02 j 23:43	21°♄50'23		opposition	-4622 Dec 16 j 09:12	21°♄13'30	0°-13'-37
	-4628 Jun 26 j 22:44	0°♄		min. Earth dist.	-4622 Dec 15 j 23:56	21°♄15'21	8.43960 AU
retrograde	-4628 Jul 19 j 07:35	0°♄27'56		direct	-4621 Feb 23 j 16:43	17°♄45'15	
	-4628 Aug 10 j 16:37	30°♄♂		asc. node	-4621 Apr 24 j 14:17	20°♄36'29	
opposition	-4628 Sep 24 j 04:21	26°♄56'22	-2°-59'-45	evening set	-4621 Jun 09 j 18:29	25°♄34'22	
min. Earth dist.	-4628 Sep 23 j 18:30	26°♄58'26	7.86527 AU				
direct	-4628 Nov 29 j 02:20	23°♄27'07		conjunction	-4621 Jun 27 j 12:51	27°♄44'56	0°05'28
	-4627 Feb 26 j 22:06	0°♄		minimum elong	-4621 Jun 27 j 12:51	27°♄44'56	0°05'39
evening set	-4627 Mar 13 j 15:59	1°♄52'37		behind sun begin	-4621 Jun 27 j 05:55	27°♄42'49	
				behind sun end	-4621 Jun 27 j 19:47	27°♄47'02	
conjunction	-4627 Mar 31 j 17:08	4°♄15'38	-2°-21'-41	max. Earth dist.	-4621 Jun 27 j 22:49	27°♄47'59	10.51570 AU
minimum elong	-4627 Mar 31 j 17:10	4°♄15'39	2°21'48	morning rise	-4621 Jul 15 j 02:19	29°♄53'57	
max. Earth dist.	-4627 Apr 01 j 07:44	4°♄20'29	9.86937 AU		-4621 Jul 15 j 22:26	0°♄	
morning rise	-4627 Apr 18 j 20:03	6°♄39'10		retrograde	-4621 Oct 22 j 21:22	7°♄16'06	
retrograde	-4627 Aug 03 j 06:15	15°♄12'02		opposition	-4621 Dec 29 j 07:03	3°♄54'38	0°25'47
opposition	-4627 Oct 08 j 20:22	11°♄41'02	-2°-52'-40	min. Earth dist.	-4621 Dec 28 j 23:34	3°♄56'06	8.58949 AU
min. Earth dist.	-4627 Oct 08 j 08:21	11°♄43'33	7.88745 AU	direct	-4620 Mar 08 j 06:15	0°♄27'36	
direct	-4627 Dec 14 j 01:44	8°♄11'04		evening set	-4620 Jun 22 j 00:24	8°♄06'55	
evening set	-4626 Mar 29 j 08:09	16°♄36'43					

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 24

Attention, astronomical year style is used: The year -4620 in astronomical counting style is the year 4621 BCE in historical counting style.

conjunction	-4620 Jul 09 j 14:00	10°II14'07	0°36'36	evening set	-4614 Aug 31 j 05:27	16°Ω59'59	
minimum elong	-4620 Jul 09 j 13:59	10°II14'06	0°36'48				
max. Earth dist.	-4620 Jul 09 j 21:02	10°II16'15	10.66411 AU	conjunction	-4614 Sep 16 j 16:34	18°Ω53'37	2°24'45
morning rise	-4620 Jul 26 j 22:20	12°II19'42		minimum elong	-4614 Sep 16 j 16:33	18°Ω53'36	2°24'54
retrograde	-4620 Nov 03 j 01:34	19°II31'35		max. Earth dist.	-4614 Sep 16 j 05:54	18°Ω50'31	11.21790 AU
opposition	-4619 Jan 09 j 21:46	16°II11'48	1°02'40	morning rise	-4614 Oct 03 j 01:02	20°Ω46'33	
min. Earth dist.	-4619 Jan 09 j 16:14	16°II12'52	8.73499 AU	retrograde	-4613 Jan 10 j 07:58	27°Ω34'18	
direct	-4619 Mar 21 j 11:25	12°II46'08		opposition	-4613 Mar 21 j 15:36	24°Ω18'53	2°57'21
evening set	-4619 Jul 04 j 18:40	20°II16'08		min. Earth dist.	-4613 Mar 22 j 02:22	24°Ω16'56	9.22561 AU
				direct	-4613 Jun 01 j 08:53	21°Ω00'04	
				evening set	-4613 Sep 11 j 06:37	27°Ω56'37	
conjunction	-4619 Jul 22 j 03:07	22°II20'04	1°05'15				
minimum elong	-4619 Jul 22 j 03:05	22°II20'04	1°05'28	conjunction	-4613 Sep 27 j 15:45	29°Ω49'47	2°25'24
max. Earth dist.	-4619 Jul 22 j 07:41	22°II21'27	10.80458 AU	minimum elong	-4613 Sep 27 j 15:45	29°Ω49'47	2°25'31
morning rise	-4619 Aug 08 j 06:08	24°II22'27		max. Earth dist.	-4613 Sep 27 j 01:55	29°Ω45'46	11.22133 AU
	-4619 Oct 04 j 22:58	0°Ω					
retrograde	-4619 Nov 15 j 00:26	1°Ω25'49			-4613 Sep 29 j 02:59	0°Ω	
	-4619 Dec 27 j 01:58	30°RII		morning rise	-4613 Oct 13 j 23:21	1°Ω42'33	
opposition	-4618 Jan 22 j 06:08	28°II07'31	1°35'39	retrograde	-4612 Jan 21 j 17:54	8°Ω32'28	
min. Earth dist.	-4618 Jan 22 j 03:36	28°II08'00	8.86976 AU	opposition	-4612 Apr 01 j 09:53	5°Ω16'35	2°54'57
direct	-4618 Apr 03 j 06:37	24°II43'16		min. Earth dist.	-4612 Apr 01 j 22:43	5°Ω14'15	9.21409 AU
	-4618 Jun 28 j 13:08	0°Ω		direct	-4612 Jun 11 j 22:31	1°Ω58'15	
evening set	-4618 Jul 17 j 02:40	2°Ω04'48		evening set	-4612 Sep 21 j 06:33	8°Ω53'52	
conjunction	-4618 Aug 03 j 05:50	4°Ω05'46	1°30'25	conjunction	-4612 Oct 07 j 14:58	10°Ω47'12	2°20'44
minimum elong	-4618 Aug 03 j 05:47	4°Ω05'46	1°30'39	minimum elong	-4612 Oct 07 j 14:59	10°Ω47'12	2°20'50
max. Earth dist.	-4618 Aug 03 j 06:54	4°Ω06'05	10.93127 AU	max. Earth dist.	-4612 Oct 06 j 23:45	10°Ω42'46	11.19502 AU
morning rise	-4618 Aug 20 j 03:48	6°Ω05'17		morning rise	-4612 Oct 23 j 22:40	12°Ω40'24	
retrograde	-4618 Nov 26 j 15:58	13°Ω01'53		retrograde	-4611 Feb 01 j 10:11	19°Ω34'15	
opposition	-4617 Feb 03 j 09:03	9°Ω44'51	2°03'46	opposition	-4611 Apr 13 j 06:00	16°Ω17'35	2°46'10
min. Earth dist.	-4617 Feb 03 j 09:55	9°Ω44'41	8.98838 AU	min. Earth dist.	-4611 Apr 13 j 19:37	16°Ω15'06	9.17284 AU
direct	-4617 Apr 15 j 17:12	6°Ω21'56		direct	-4611 Jun 23 j 12:42	12°Ω59'32	
evening set	-4617 Jul 29 j 01:35	13°Ω36'04		evening set	-4611 Oct 02 j 07:02	19°Ω55'39	
conjunction	-4617 Aug 14 j 23:37	15°Ω34'27	1°51'22	conjunction	-4611 Oct 18 j 15:50	21°Ω49'47	2°10'48
minimum elong	-4617 Aug 14 j 23:34	15°Ω34'26	1°51'36	minimum elong	-4611 Oct 18 j 15:52	21°Ω49'48	2°10'52
max. Earth dist.	-4617 Aug 14 j 20:36	15°Ω33'34	11.03938 AU	max. Earth dist.	-4611 Oct 18 j 00:02	21°Ω45'10	11.13987 AU
morning rise	-4617 Aug 31 j 17:08	17°Ω31'32		morning rise	-4611 Nov 04 j 00:37	23°Ω44'02	
retrograde	-4617 Dec 08 j 03:20	24°Ω23'15			-4610 Jan 14 j 04:16	0°Ω	
opposition	-4616 Feb 15 j 07:59	21°Ω07'08	2°26'21	retrograde	-4610 Feb 13 j 06:19	0°Ω43'27	
min. Earth dist.	-4616 Feb 15 j 11:33	21°Ω06'29	9.08637 AU		-4610 Mar 15 j 20:36	30°RΩ	
direct	-4616 Apr 27 j 00:05	17°Ω45'30		opposition	-4610 Apr 25 j 05:18	27°Ω25'43	2°31'07
evening set	-4616 Aug 08 j 16:32	24°Ω53'21		min. Earth dist.	-4610 Apr 25 j 19:25	27°Ω23'07	9.10355 AU
				direct	-4610 Jul 05 j 01:14	24°Ω07'41	
conjunction	-4616 Aug 25 j 10:06	26°Ω49'36	2°07'35		-4610 Oct 03 j 18:27	0°Ω	
minimum elong	-4616 Aug 25 j 10:03	26°Ω49'35	2°07'49	evening set	-4610 Oct 13 j 10:13	1°Ω05'49	
max. Earth dist.	-4616 Aug 25 j 04:05	26°Ω47'51	11.12506 AU				
morning rise	-4616 Sep 10 j 23:45	28°Ω44'43		conjunction	-4610 Oct 29 j 20:08	3°Ω01'17	1°55'48
	-4616 Sep 22 j 04:38	0°Ω		minimum elong	-4610 Oct 29 j 20:11	3°Ω01'17	1°55'48
retrograde	-4616 Dec 18 j 13:46	5°Ω33'25		max. Earth dist.	-4610 Oct 29 j 03:09	2°Ω56'16	11.05818 AU
opposition	-4615 Feb 26 j 03:56	2°Ω17'51	2°42'57	morning rise	-4610 Nov 15 j 07:07	4°Ω57'09	
min. Earth dist.	-4615 Feb 26 j 09:17	2°Ω16'52	9.16019 AU	retrograde	-4609 Feb 25 j 08:46	12°Ω03'42	
	-4615 Apr 01 j 15:37	30°RΩ		opposition	-4609 May 07 j 08:59	8°Ω44'37	2°10'01
direct	-4615 May 08 j 23:39	28°Ω57'23		min. Earth dist.	-4609 May 07 j 23:53	8°Ω41'52	9.00908 AU
	-4615 Jun 14 j 15:48	0°Ω		direct	-4609 Jul 16 j 17:21	5°Ω26'19	
evening set	-4615 Aug 20 j 01:17	6°Ω00'07		evening set	-4609 Oct 24 j 17:46	12°Ω27'56	
conjunction	-4615 Sep 05 j 15:15	7°Ω54'47	2°18'47	conjunction	-4609 Nov 10 j 05:41	14°Ω25'16	1°36'00
minimum elong	-4615 Sep 05 j 15:13	7°Ω54'46	2°18'58	minimum elong	-4609 Nov 10 j 05:44	14°Ω25'17	1°35'57
max. Earth dist.	-4615 Sep 05 j 07:24	7°Ω52'30	11.18530 AU	max. Earth dist.	-4609 Nov 09 j 12:20	14°Ω20'06	10.95318 AU
morning rise	-4615 Sep 22 j 01:45	9°Ω48'31		morning rise	-4609 Nov 26 j 19:50	16°Ω23'19	
	-4615 Nov 15 j 06:41	15°Ω		retrograde	-4608 Mar 08 j 18:18	23°Ω38'29	
retrograde	-4615 Dec 29 j 22:39	16°Ω35'53		opposition	-4608 May 18 j 18:05	20°Ω17'48	1°43'13
	-4614 Feb 14 j 03:21	15°RΩ		min. Earth dist.	-4608 May 19 j 08:46	20°Ω15'04	8.89314 AU
opposition	-4614 Mar 09 j 21:59	13°Ω20'34	2°53'20	direct	-4608 Jul 27 j 13:01	16°Ω58'59	
min. Earth dist.	-4614 Mar 10 j 05:48	13°Ω19'08	9.20725 AU	evening set	-4608 Nov 04 j 07:27	24°Ω05'35	
direct	-4614 May 20 j 17:38	10°Ω01'01					
	-4614 Aug 12 j 22:42	15°Ω		conjunction	-4608 Nov 20 j 22:20	26°Ω05'16	1°11'51

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 25

Attention, astronomical year style is used: The year -4608 in astronomical counting style is the year 4609 BCE in historical counting style.

minimum elong	-4608 Nov 20 j 22:22	26° <u>♄</u> 05'17	1°11'45	opposition	-4602 Aug 06 j 07:33	7° <u>♄</u> 15'32	-1°-59'-1
max. Earth dist.	-4608 Nov 20 j 06:25	26° <u>♄</u> 00'28	10.82873 AU	min. Earth dist.	-4602 Aug 06 j 07:06	7° <u>♄</u> 15'37	8.05317 AU
morning rise	-4608 Dec 07 j 16:12	28° <u>♄</u> 05'56		direct	-4602 Oct 11 j 14:49	3° <u>♄</u> 50'00	
	-4608 Dec 24 j 05:14	0° <u>♄</u>		evening set	-4601 Jan 21 j 04:56	11° <u>♄</u> 52'15	
retrograde	-4607 Mar 21 j 12:32	5° <u>♄</u> 31'08					
opposition	-4607 May 31 j 09:22	2° <u>♄</u> 08'39	1°11'21	conjunction	-4601 Feb 07 j 19:26	14° <u>♄</u> 10'18	-1°-47'-30
min. Earth dist.	-4607 May 31 j 22:29	2° <u>♄</u> 06'10	8.76005 AU	minimum elong	-4601 Feb 07 j 19:22	14° <u>♄</u> 10'17	1°47'44
	-4607 Jul 01 j 06:16	30° <u>♄</u>		max. Earth dist.	-4601 Feb 07 j 22:35	14° <u>♄</u> 11'21	10.00000 AU
direct	-4607 Aug 08 j 15:02	28° <u>♄</u> 49'06		morning rise	-4601 Feb 25 j 14:49	16° <u>♄</u> 30'01	
	-4607 Sep 14 j 21:36	0° <u>♄</u>		retrograde	-4601 Jun 13 j 16:52	25° <u>♄</u> 02'07	
evening set	-4607 Nov 16 j 05:32	6° <u>♄</u> 02'12		opposition	-4601 Aug 20 j 19:08	21° <u>♄</u> 30'31	-2°-28'-34
				min. Earth dist.	-4601 Aug 20 j 14:45	21° <u>♄</u> 31'25	7.95547 AU
conjunction	-4607 Dec 02 j 23:56	8° <u>♄</u> 04'39	0°44'01	direct	-4601 Oct 25 j 18:05	18° <u>♄</u> 03'41	
minimum elong	-4607 Dec 02 j 23:57	8° <u>♄</u> 04'39	0°43'52	evening set	-4600 Feb 05 j 04:59	26° <u>♄</u> 15'39	
max. Earth dist.	-4607 Dec 02 j 10:10	8° <u>♄</u> 00'26	10.68944 AU				
morning rise	-4607 Dec 19 j 21:56	10° <u>♄</u> 08'19		conjunction	-4600 Feb 22 j 23:08	28° <u>♄</u> 36'03	-2°-7'-41
	-4606 Feb 03 j 13:00	15° <u>♄</u>		minimum elong	-4600 Feb 22 j 23:05	28° <u>♄</u> 36'03	2°07'54
retrograde	-4606 Apr 03 j 17:56	17° <u>♄</u> 44'39		max. Earth dist.	-4600 Feb 23 j 06:58	28° <u>♄</u> 38'39	9.91656 AU
	-4606 Jun 04 j 14:50	15° <u>♄</u>			-4600 Mar 04 j 12:37	0° <u>♄</u>	
opposition	-4606 Jun 13 j 07:35	14° <u>♄</u> 20'19	0°35'17	morning rise	-4600 Mar 11 j 21:31	0° <u>♄</u> 57'53	
min. Earth dist.	-4606 Jun 13 j 18:16	14° <u>♄</u> 18'17	8.61508 AU	retrograde	-4600 Jun 27 j 22:30	9° <u>♄</u> 35'21	
direct	-4606 Aug 20 j 22:07	10° <u>♄</u> 59'51		opposition	-4600 Sep 03 j 10:54	6° <u>♄</u> 03'19	-2°-49'-16
	-4606 Oct 30 j 04:27	15° <u>♄</u>		min. Earth dist.	-4600 Sep 03 j 03:04	6° <u>♄</u> 04'57	7.88934 AU
evening set	-4606 Nov 28 j 13:45	18° <u>♄</u> 20'55		direct	-4600 Nov 08 j 06:00	2° <u>♄</u> 35'19	
				evening set	-4599 Feb 19 j 14:36	10° <u>♄</u> 55'03	
conjunction	-4606 Dec 15 j 11:55	20° <u>♄</u> 26'25	0°13'24				
minimum elong	-4606 Dec 15 j 11:55	20° <u>♄</u> 26'25	0°13'14	conjunction	-4599 Mar 09 j 12:00	13° <u>♄</u> 17'10	-2°-19'-58
behind sun begin	-4606 Dec 15 j 07:43	20° <u>♄</u> 25'08		minimum elong	-4599 Mar 09 j 11:59	13° <u>♄</u> 17'09	2°20'09
behind sun end	-4606 Dec 15 j 16:08	20° <u>♄</u> 27'43		max. Earth dist.	-4599 Mar 09 j 23:59	13° <u>♄</u> 21'09	9.86763 AU
max. Earth dist.	-4606 Dec 14 j 23:57	20° <u>♄</u> 22'43	10.54113 AU		-4599 Mar 22 j 09:42	15° <u>♄</u>	
morning rise	-4605 Jan 01 j 14:29	22° <u>♄</u> 33'24		morning rise	-4599 Mar 27 j 12:44	15° <u>♄</u> 40'21	
	-4605 Mar 27 j 13:54	0° <u>♄</u>		retrograde	-4599 Jul 13 j 03:54	24° <u>♄</u> 19'11	
retrograde	-4605 Apr 17 j 09:37	0° <u>♄</u> 21'43		opposition	-4599 Sep 18 j 04:53	20° <u>♄</u> 47'13	-2°-59'-8
	-4605 May 08 j 05:40	30° <u>♄</u>		min. Earth dist.	-4599 Sep 17 j 18:15	20° <u>♄</u> 49'27	7.85965 AU
desc. node	-4605 May 22 j 10:08	29° <u>♄</u> 22'15		direct	-4599 Nov 23 j 00:07	17° <u>♄</u> 18'16	
opposition	-4605 Jun 26 j 13:47	26° <u>♄</u> 55'34	0°-3'-42	evening set	-4598 Mar 07 j 05:58	25° <u>♄</u> 42'58	
min. Earth dist.	-4605 Jun 26 j 22:08	26° <u>♄</u> 53'56	8.46455 AU				
direct	-4605 Sep 02 j 11:16	23° <u>♄</u> 33'58		conjunction	-4598 Mar 25 j 06:07	28° <u>♄</u> 05'58	-2°-23'-11
	-4605 Dec 02 j 14:31	0° <u>♄</u>		minimum elong	-4598 Mar 25 j 06:08	28° <u>♄</u> 05'58	2°23'20
evening set	-4605 Dec 11 j 09:35	1° <u>♄</u> 04'19		max. Earth dist.	-4598 Mar 25 j 21:28	28° <u>♄</u> 11'05	9.85708 AU
					-4598 Apr 08 j 13:55	0° <u>♄</u>	
conjunction	-4605 Dec 28 j 11:47	3° <u>♄</u> 13'04	0°-18'-49	morning rise	-4598 Apr 12 j 08:29	0° <u>♄</u> 29'39	
minimum elong	-4605 Dec 28 j 11:46	3° <u>♄</u> 13'04	0°19'02	retrograde	-4598 Jul 28 j 06:15	9° <u>♄</u> 05'34	
max. Earth dist.	-4605 Dec 28 j 02:08	3° <u>♄</u> 10'02	10.39045 AU	opposition	-4598 Oct 02 j 22:24	5° <u>♄</u> 34'12	-2°-57'-8
morning rise	-4604 Jan 14 j 19:06	5° <u>♄</u> 23'29		min. Earth dist.	-4598 Oct 02 j 09:57	5° <u>♄</u> 36'49	7.86882 AU
retrograde	-4604 Apr 30 j 09:46	13° <u>♄</u> 24'10		direct	-4598 Dec 07 j 22:18	2° <u>♄</u> 04'34	
opposition	-4604 Jul 09 j 04:04	9° <u>♄</u> 56'16	0°-43'-56	evening set	-4597 Mar 22 j 23:12	10° <u>♄</u> 30'53	
min. Earth dist.	-4604 Jul 09 j 10:01	9° <u>♄</u> 55'06	8.31555 AU				
direct	-4604 Sep 14 j 11:19	6° <u>♄</u> 33'25		conjunction	-4597 Apr 10 j 01:28	12° <u>♄</u> 53'55	-2°-16'-59
evening set	-4604 Dec 23 j 18:34	14° <u>♄</u> 14'06		minimum elong	-4597 Apr 10 j 01:31	12° <u>♄</u> 53'56	2°17'05
				max. Earth dist.	-4597 Apr 10 j 18:57	12° <u>♄</u> 59'43	9.88599 AU
conjunction	-4603 Jan 10 j 00:56	16° <u>♄</u> 26'09	0°-50'-58	morning rise	-4597 Apr 28 j 04:43	15° <u>♄</u> 17'12	
minimum elong	-4603 Jan 10 j 00:54	16° <u>♄</u> 26'09	0°51'12	retrograde	-4597 Aug 12 j 02:27	23° <u>♄</u> 46'05	
max. Earth dist.	-4603 Jan 09 j 18:36	16° <u>♄</u> 24'07	10.24474 AU	opposition	-4597 Oct 17 j 12:49	20° <u>♄</u> 15'46	-2°-43'-29
morning rise	-4603 Jan 27 j 12:46	18° <u>♄</u> 39'57		min. Earth dist.	-4597 Oct 16 j 23:28	20° <u>♄</u> 18'33	7.91640 AU
retrograde	-4603 May 14 j 19:48	26° <u>♄</u> 52'38		direct	-4597 Dec 22 j 21:46	16° <u>♄</u> 45'46	
opposition	-4603 Jul 23 j 02:05	23° <u>♄</u> 23'12	-1°-23'-14	evening set	-4596 Apr 06 j 14:00	25° <u>♄</u> 10'15	
min. Earth dist.	-4603 Jul 23 j 05:15	23° <u>♄</u> 22'34	8.17577 AU				
direct	-4603 Sep 27 j 20:35	19° <u>♄</u> 59'00		conjunction	-4596 Apr 24 j 17:30	27° <u>♄</u> 32'27	-2°-1'-59
evening set	-4602 Jan 06 j 17:09	27° <u>♄</u> 50'34		minimum elong	-4596 Apr 24 j 17:34	27° <u>♄</u> 32'29	2°02'02
	-4602 Jan 23 j 09:55	0° <u>♄</u>		max. Earth dist.	-4596 Apr 25 j 11:55	27° <u>♄</u> 38'30	9.95225 AU
				morning rise	-4596 May 12 j 20:37	29° <u>♄</u> 54'25	
conjunction	-4602 Jan 24 j 03:40	0° <u>♄</u> 05'47	-1°-21'-14		-4596 May 13 j 14:00	0° <u>♄</u>	
minimum elong	-4602 Jan 24 j 03:37	0° <u>♄</u> 05'46	1°21'28	retrograde	-4596 Aug 25 j 14:03	8° <u>♄</u> 12'59	
max. Earth dist.	-4602 Jan 24 j 01:51	0° <u>♄</u> 05'11	10.11190 AU	opposition	-4596 Oct 30 j 22:03	4° <u>♄</u> 44'04	-2°-19'-35
morning rise	-4602 Feb 10 j 19:32	2° <u>♄</u> 22'45		min. Earth dist.	-4596 Oct 30 j 08:16	4° <u>♄</u> 46'56	7.99890 AU
retrograde	-4602 May 29 j 14:57	10° <u>♄</u> 46'14		direct	-4595 Jan 05 j 20:09	1° <u>♄</u> 14'04	

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 26

Attention, astronomical year style is used: The year -4595 in astronomical counting style is the year 4596 BCE in historical counting style.

evening set	-4595 Apr 21 j 22:21	9°Υ33'34		morning rise	-4590 Aug 03 j 11:35	19°Π32'50	
				retrograde	-4590 Nov 10 j 09:23	26°Π39'41	
conjunction	-4595 May 10 j 01:56	11°Υ54'03	-1°-39'-37	opposition	-4589 Jan 17 j 10:43	23°Π21'05	1°22'11
minimum elong	-4595 May 10 j 02:00	11°Υ54'05	1°39'36	min. Earth dist.	-4589 Jan 17 j 08:28	23°Π21'31	8.81754 AU
max. Earth dist.	-4595 May 10 j 20:17	12°Υ00'01	10.05091 AU	direct	-4589 Mar 29 j 06:26	19°Π56'26	
morning rise	-4595 May 28 j 03:45	14°Υ13'53		evening set	-4589 Jul 12 j 08:18	27°Π21'39	
retrograde	-4595 Sep 08 j 14:36	22°Υ19'57					
min. Earth dist.	-4595 Nov 13 j 10:32	18°Υ55'32	8.11043 AU	conjunction	-4589 Jul 29 j 13:39	29°Π23'53	1°20'13
opposition	-4595 Nov 14 j 00:18	18°Υ52'42	-1°-47'-42	minimum elong	-4589 Jul 29 j 13:36	29°Π23'52	1°20'27
direct	-4594 Jan 20 j 14:50	15°Υ23'03		max. Earth dist.	-4589 Jul 29 j 13:58	29°Π23'59	10.88042 AU
evening set	-4594 May 06 j 21:22	23°Υ35'02			-4589 Aug 03 j 14:58	0°Ϸ	
				morning rise	-4589 Aug 15 j 13:55	1°Ϸ24'36	
conjunction	-4594 May 24 j 23:47	25°Υ53'07	-1°-11'-49	retrograde	-4589 Nov 22 j 03:47	8°Ϸ24'03	
minimum elong	-4594 May 24 j 23:50	25°Υ53'09	1°11'44	opposition	-4588 Jan 29 j 16:04	5°Ϸ06'37	1°52'30
max. Earth dist.	-4594 May 25 j 17:02	25°Υ58'39	10.17492 AU	min. Earth dist.	-4588 Jan 29 j 15:59	5°Ϸ06'38	8.93895 AU
morning rise	-4594 Jun 11 j 23:09	28°Υ10'10		direct	-4588 Apr 09 j 22:03	1°Ϸ43'12	
	-4594 Jun 26 j 22:50	0°Ϸ		evening set	-4588 Jul 23 j 11:11	9°Ϸ00'36	
retrograde	-4594 Sep 22 j 03:48	6°Ϸ02'45					
opposition	-4594 Nov 27 j 18:20	2°Ϸ37'17	-1°-10'-31	conjunction	-4588 Aug 09 j 11:30	11°Ϸ00'06	1°43'03
min. Earth dist.	-4594 Nov 27 j 05:17	2°Ϸ39'57	8.24320 AU	minimum elong	-4588 Aug 09 j 11:27	11°Ϸ00'05	1°43'17
	-4593 Jan 03 j 11:28	30°ϣΥ		max. Earth dist.	-4588 Aug 09 j 09:22	10°Ϸ59'29	10.99227 AU
direct	-4593 Feb 04 j 01:53	29°Υ08'16		morning rise	-4588 Aug 26 j 06:52	12°Ϸ58'13	
	-4593 Mar 07 j 13:46	0°Ϸ		retrograde	-4588 Dec 02 j 18:27	19°Ϸ52'05	
evening set	-4593 May 21 j 09:04	7°Ϸ11'08		opposition	-4587 Feb 09 j 16:55	16°Ϸ35'32	2°17'31
				min. Earth dist.	-4587 Feb 09 j 19:32	16°Ϸ35'02	9.04143 AU
conjunction	-4593 Jun 08 j 09:05	9°Ϸ26'17	0°-40'-42	direct	-4587 Apr 22 j 06:43	13°Ϸ13'14	
minimum elong	-4593 Jun 08 j 09:07	9°Ϸ26'17	0°40'35	evening set	-4587 Aug 04 j 05:28	20°Ϸ23'53	
max. Earth dist.	-4593 Jun 09 j 00:21	9°Ϸ31'05	10.31552 AU				
morning rise	-4593 Jun 26 j 04:53	11°Ϸ40'05		conjunction	-4587 Aug 21 j 01:05	22°Ϸ21'06	2°01'20
	-4593 Jul 24 j 21:29	15°Ϸ		minimum elong	-4587 Aug 21 j 01:02	22°Ϸ21'05	2°01'34
retrograde	-4593 Oct 05 j 07:28	19°Ϸ19'19		max. Earth dist.	-4587 Aug 20 j 20:04	22°Ϸ19'38	11.08323 AU
opposition	-4593 Dec 11 j 04:01	15°Ϸ55'43	0°-30'-44	morning rise	-4587 Sep 06 j 16:15	24°Ϸ17'05	
min. Earth dist.	-4593 Dec 10 j 16:58	15°Ϸ57'56	8.38811 AU		-4587 Nov 07 j 08:32	0°ϣ	
	-4593 Dec 22 j 21:51	15°ϣϷ		retrograde	-4587 Dec 14 j 04:48	1°ϣ07'08	
direct	-4592 Feb 18 j 03:55	12°Ϸ27'34			-4586 Jan 20 j 21:59	30°ϣϷ	
	-4592 Apr 14 j 05:09	15°Ϸ		opposition	-4586 Feb 21 j 14:11	27°Ϸ51'09	2°36'45
evening set	-4592 Jun 03 j 08:39	20°Ϸ20'37		min. Earth dist.	-4586 Feb 21 j 20:09	27°Ϸ50'02	9.12140 AU
				direct	-4586 May 04 j 07:35	24°Ϸ29'52	
conjunction	-4592 Jun 21 j 05:01	22°Ϸ32'32	0°-8'-21		-4586 Aug 01 j 10:27	0°ϣ	
minimum elong	-4592 Jun 21 j 05:01	22°Ϸ32'32	0°08'12	evening set	-4586 Aug 15 j 16:56	1°ϣ34'59	
behind sun begin	-4592 Jun 20 j 22:37	22°Ϸ30'34					
behind sun end	-4592 Jun 21 j 11:24	22°Ϸ34'30		conjunction	-4586 Sep 01 j 08:22	3°ϣ30'23	2°14'43
max. Earth dist.	-4592 Jun 21 j 17:17	22°Ϸ36'20	10.46340 AU	minimum elong	-4586 Sep 01 j 08:20	3°ϣ30'22	2°14'55
morning rise	-4592 Jul 08 j 20:21	24°Ϸ42'55		max. Earth dist.	-4586 Aug 31 j 23:36	3°ϣ27'50	11.15031 AU
	-4592 Aug 27 j 23:12	0°Π		morning rise	-4586 Sep 17 j 20:15	5°ϣ24'47	
asc. node	-4592 Sep 26 j 14:32	1°Π47'08		retrograde	-4586 Dec 25 j 12:08	12°ϣ12'50	
retrograde	-4592 Oct 17 j 01:40	2°Π09'48		opposition	-4585 Mar 05 j 08:54	8°ϣ57'04	2°49'49
	-4592 Dec 07 j 16:30	30°ϣϷ		min. Earth dist.	-4585 Mar 05 j 17:22	8°ϣ55'30	9.17619 AU
opposition	-4592 Dec 23 j 05:33	28°Ϸ48'03	0°09'13	direct	-4585 May 16 j 04:51	5°ϣ36'38	
min. Earth dist.	-4592 Dec 22 j 21:31	28°Ϸ49'38	8.53651 AU	evening set	-4585 Aug 26 j 22:56	12°ϣ37'32	
direct	-4591 Mar 02 j 20:33	25°Ϸ20'58					
	-4591 May 20 j 17:21	0°Π		conjunction	-4585 Sep 12 j 11:09	14°ϣ31'40	2°22'56
evening set	-4591 Jun 16 j 20:02	3°Π04'16		minimum elong	-4585 Sep 12 j 11:08	14°ϣ31'40	2°23'06
				max. Earth dist.	-4585 Sep 12 j 00:07	14°ϣ28'28	11.19144 AU
conjunction	-4591 Jul 04 j 11:46	5°Π12'50	0°23'34		-4585 Sep 16 j 12:48	15°ϣ	
minimum elong	-4591 Jul 04 j 11:45	5°Π12'50	0°23'45	morning rise	-4585 Sep 28 j 20:35	16°ϣ25'02	
max. Earth dist.	-4591 Jul 04 j 20:02	5°Π15'21	10.61081 AU	retrograde	-4584 Jan 05 j 22:02	23°ϣ12'51	
morning rise	-4591 Jul 21 j 22:13	7°Π19'49		opposition	-4584 Mar 16 j 02:39	19°ϣ57'00	2°56'35
retrograde	-4591 Oct 29 j 08:56	14°Π35'50		min. Earth dist.	-4584 Mar 16 j 12:28	19°ϣ55'12	9.20407 AU
opposition	-4590 Jan 04 j 23:32	11°Π15'47	0°47'22	direct	-4584 May 26 j 22:56	16°ϣ37'20	
min. Earth dist.	-4590 Jan 04 j 18:40	11°Π16'44	8.68162 AU	evening set	-4584 Sep 06 j 01:02	23°ϣ35'15	
direct	-4590 Mar 16 j 05:59	7°Π49'54					
evening set	-4590 Jun 29 j 19:34	15°Π23'49		conjunction	-4584 Sep 22 j 11:06	25°ϣ28'43	2°25'51
				minimum elong	-4584 Sep 22 j 11:06	25°ϣ28'43	2°25'59
conjunction	-4590 Jul 17 j 06:11	17°Π29'07	0°53'27	max. Earth dist.	-4584 Sep 21 j 22:59	25°ϣ25'12	11.20535 AU
minimum elong	-4590 Jul 17 j 06:09	17°Π29'06	0°53'39	morning rise	-4584 Oct 08 j 18:58	27°ϣ21'39	
max. Earth dist.	-4590 Jul 17 j 10:07	17°Π30'18	10.75166 AU		-4584 Nov 02 j 06:26	0°ϣ	

# Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 27

Attention, astronomical year style is used: The year -4583 in astronomical counting style is the year 4584 BCE in historical counting style.

retrograde	-4583 Jan 16 j 08:07	4° $\cap$ 10°56		opposition	-4577 Jun 08 j 05:59	9° $\cap$ 25°44	0°50'55
opposition	-4583 Mar 27 j 20:33	0° $\cap$ 54°43	2°56'55	min. Earth dist.	-4577 Jun 08 j 17:20	9° $\cap$ 23°35	8.68333 AU
min. Earth dist.	-4583 Mar 28 j 07:40	0° $\cap$ 52°41	9.20421 AU	direct	-4577 Aug 16 j 01:50	6° $\cap$ 05°58	
	-4583 Apr 09 j 12:16	30° $\cap$ 0		evening set	-4577 Nov 23 j 17:46	13° $\cap$ 23°27	
direct	-4583 Jun 07 j 12:14	27° $\cap$ 35°40			-4577 Dec 06 j 21:04	15° $\cap$	
	-4583 Aug 02 j 19:53	0° $\cap$					
evening set	-4583 Sep 17 j 01:21	4° $\cap$ 32°00		conjunction	-4577 Dec 10 j 14:09	15° $\cap$ 27°33	0°26'33
				minimum elong	-4577 Dec 10 j 14:10	15° $\cap$ 27°33	0°26'23
conjunction	-4583 Oct 03 j 10:09	6° $\cap$ 25°22	2°23'26	max. Earth dist.	-4577 Dec 10 j 02:00	15° $\cap$ 23°48	10.61303 AU
minimum elong	-4583 Oct 03 j 10:11	6° $\cap$ 25°23	2°23'32	morning rise	-4577 Dec 27 j 14:48	17° $\cap$ 33°02	
max. Earth dist.	-4583 Oct 02 j 20:15	6° $\cap$ 21°20	11.19165 AU	retrograde	-4576 Apr 10 j 23:44	25° $\cap$ 15°59	
morning rise	-4583 Oct 19 j 17:41	8° $\cap$ 18°28		opposition	-4576 Jun 20 j 08:56	21° $\cap$ 51°03	0°12'57
retrograde	-4582 Jan 27 j 22:08	15° $\cap$ 10°52		min. Earth dist.	-4576 Jun 20 j 18:09	21° $\cap$ 49°16	8.53949 AU
opposition	-4582 Apr 08 j 15:42	11° $\cap$ 54°04	2°50'49	direct	-4576 Aug 27 j 13:26	18° $\cap$ 30°24	
min. Earth dist.	-4582 Apr 09 j 04:47	11° $\cap$ 51°40	9.17662 AU	desc. node	-4576 Oct 22 j 09:19	21° $\cap$ 08°55	
direct	-4582 Jun 19 j 01:08	8° $\cap$ 35°24		evening set	-4576 Dec 05 j 08:36	25° $\cap$ 56°26	
evening set	-4582 Sep 28 j 01:33	15° $\cap$ 31°36					
				conjunction	-4576 Dec 22 j 09:06	28° $\cap$ 03°40	0°-5'-14
conjunction	-4582 Oct 14 j 10:01	17° $\cap$ 25°28	2°15'43	minimum elong	-4576 Dec 22 j 09:05	28° $\cap$ 03°40	0°05'26
minimum elong	-4582 Oct 14 j 10:04	17° $\cap$ 25°28	2°15'47	behind sun begin	-4576 Dec 22 j 02:14	28° $\cap$ 01°32	
max. Earth dist.	-4582 Oct 13 j 18:12	17° $\cap$ 20°50	11.15078 AU	behind sun end	-4576 Dec 22 j 15:56	28° $\cap$ 05°48	
morning rise	-4582 Oct 30 j 18:24	19° $\cap$ 19°21		max. Earth dist.	-4576 Dec 22 j 00:09	28° $\cap$ 00°53	10.46738 AU
retrograde	-4581 Feb 08 j 14:05	26° $\cap$ 16°31			-4575 Jan 06 j 21:46	0° $\cap$	
opposition	-4581 Apr 20 j 13:36	22° $\cap$ 58°50	2°38'22	morning rise	-4575 Jan 08 j 14:16	0° $\cap$ 12°28	
min. Earth dist.	-4581 Apr 21 j 03:45	22° $\cap$ 56°14	9.12211 AU	retrograde	-4575 Apr 24 j 20:10	8° $\cap$ 07°29	
direct	-4581 Jun 30 j 13:33	19° $\cap$ 40°22		opposition	-4575 Jul 03 j 19:44	4° $\cap$ 40°51	0°-26'-59
evening set	-4581 Oct 09 j 03:12	26° $\cap$ 37°52		min. Earth dist.	-4575 Jul 04 j 01:52	4° $\cap$ 39°39	8.39350 AU
				direct	-4575 Sep 09 j 09:38	1° $\cap$ 19°09	
conjunction	-4581 Oct 25 j 12:31	28° $\cap$ 32°48	2°02'49	evening set	-4575 Dec 18 j 11:59	8° $\cap$ 54°51	
minimum elong	-4581 Oct 25 j 12:34	28° $\cap$ 32°48	2°02°51				
max. Earth dist.	-4581 Oct 24 j 20:35	28° $\cap$ 28°06	11.08391 AU	conjunction	-4574 Jan 04 j 16:32	11° $\cap$ 05°18	0°-37'-33
	-4581 Nov 06 j 21:49	0° $\cap$		minimum elong	-4574 Jan 04 j 16:31	11° $\cap$ 05°18	0°37'46
morning rise	-4581 Nov 10 j 22:36	0° $\cap$ 28°01		max. Earth dist.	-4574 Jan 04 j 10:42	11° $\cap$ 03°27	10.32261 AU
retrograde	-4580 Feb 20 j 14:13	7° $\cap$ 31°38		morning rise	-4574 Jan 22 j 02:09	13° $\cap$ 17°27	
opposition	-4580 May 01 j 15:20	4° $\cap$ 12°48	2°19'45	retrograde	-4574 May 09 j 03:12	21° $\cap$ 24°28	
min. Earth dist.	-4580 May 02 j 05:06	4° $\cap$ 10°16	9.04235 AU	opposition	-4574 Jul 17 j 14:21	17° $\cap$ 56°15	-1°-6'-55
direct	-4580 Jul 11 j 06:08	0° $\cap$ 54°21		min. Earth dist.	-4574 Jul 17 j 17:24	17° $\cap$ 55°39	8.25218 AU
evening set	-4580 Oct 19 j 08:35	7° $\cap$ 54°36		direct	-4574 Sep 22 j 13:53	14° $\cap$ 33°17	
				evening set	-4573 Jan 01 j 04:36	22° $\cap$ 19°25	
conjunction	-4580 Nov 04 j 19:44	9° $\cap$ 51°09	1°44°59				
minimum elong	-4580 Nov 04 j 19:46	9° $\cap$ 51°10	1°44°57	conjunction	-4573 Jan 18 j 13:11	24° $\cap$ 33°03	-1°-8'-50
max. Earth dist.	-4580 Nov 04 j 04:35	9° $\cap$ 46°39	10.99307 AU	minimum elong	-4573 Jan 18 j 13:08	24° $\cap$ 33°02	1°09°03
morning rise	-4580 Nov 21 j 08:21	11° $\cap$ 48°16		max. Earth dist.	-4573 Jan 18 j 10:09	24° $\cap$ 32°04	10.18575 AU
retrograde	-4579 Mar 03 j 22:27	18° $\cap$ 59°47		morning rise	-4573 Feb 05 j 03:05	26° $\cap$ 48°26	
opposition	-4579 May 13 j 21:50	15° $\cap$ 39°37	1°55°15		-4573 Mar 03 j 16:35	0° $\cap$	
min. Earth dist.	-4579 May 14 j 10:47	15° $\cap$ 37°13	8.94002 AU	retrograde	-4573 May 23 j 19:25	5° $\cap$ 06°42	
direct	-4579 Jul 22 j 23:21	12° $\cap$ 20°59		opposition	-4573 Jul 31 j 16:34	1° $\cap$ 37°06	-1°-44'-26
evening set	-4579 Oct 30 j 19:33	19° $\cap$ 25°28		min. Earth dist.	-4573 Jul 31 j 16:53	1° $\cap$ 37°02	8.12250 AU
					-4573 Aug 21 j 14:19	30° $\cap$ 0	
conjunction	-4579 Nov 16 j 09:09	21° $\cap$ 24°08	1°22°34	direct	-4573 Oct 06 j 03:06	28° $\cap$ 12°46	
minimum elong	-4579 Nov 16 j 09:12	21° $\cap$ 24°09	1°22°30		-4573 Nov 19 j 09:48	0° $\cap$	
max. Earth dist.	-4579 Nov 15 j 18:06	21° $\cap$ 19°37	10.88141 AU	evening set	-4572 Jan 15 j 10:37	6° $\cap$ 09°41	
morning rise	-4579 Dec 03 j 01:16	23° $\cap$ 23°40					
	-4578 Feb 14 j 06:13	0° $\cap$		conjunction	-4572 Feb 01 j 23:09	8° $\cap$ 26°17	-1°-37°00
retrograde	-4578 Mar 16 j 12:56	0° $\cap$ 44°30		minimum elong	-4572 Feb 01 j 23:05	8° $\cap$ 26°16	1°37°14
	-4578 Apr 16 j 06:01	30° $\cap$ 0		max. Earth dist.	-4572 Feb 01 j 23:06	8° $\cap$ 26°16	10.06393 AU
opposition	-4578 May 26 j 10:27	27° $\cap$ 22°51	1°25°23	morning rise	-4572 Feb 19 j 16:59	10° $\cap$ 44°37	
min. Earth dist.	-4578 May 26 j 22:49	27° $\cap$ 20°32	8.81875 AU	retrograde	-4572 Jun 06 j 18:33	19° $\cap$ 12°32	
direct	-4578 Aug 03 j 20:40	24° $\cap$ 03°46		opposition	-4572 Aug 14 j 01:29	15° $\cap$ 41°53	-2°-16°54
	-4578 Nov 01 j 00:53	0° $\cap$		min. Earth dist.	-4572 Aug 13 j 23:20	15° $\cap$ 42°19	8.01194 AU
evening set	-4578 Nov 11 j 13:59	1° $\cap$ 14°01		direct	-4572 Oct 19 j 02:38	12° $\cap$ 16°10	
				evening set	-4571 Jan 29 j 05:28	20° $\cap$ 23°26	
conjunction	-4578 Nov 28 j 06:38	3° $\cap$ 15°14	0°56°09				
minimum elong	-4578 Nov 28 j 06:41	3° $\cap$ 15°14	0°56°02	conjunction	-4571 Feb 15 j 21:45	22° $\cap$ 42°38	-1°-59°58
max. Earth dist.	-4578 Nov 27 j 16:12	3° $\cap$ 10°50	10.75302 AU	minimum elong	-4571 Feb 15 j 21:42	22° $\cap$ 42°37	2°00°11
morning rise	-4578 Dec 15 j 02:53	5° $\cap$ 17°34		max. Earth dist.	-4571 Feb 16 j 01:36	22° $\cap$ 43°54	9.96523 AU
retrograde	-4577 Mar 29 j 13:21	12° $\cap$ 48°59		morning rise	-4571 Mar 05 j 18:53	25° $\cap$ 03°24	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 28

Attention, astronomical year style is used: The year -4571 in astronomical counting style is the year 4572 BCE in historical counting style.

	-4571 Apr 16 j 19:36	0°♊		conjunction	-4565 May 19 j 01:36	20°♑11'32	-1°-24'-23
retrograde	-4571 Jun 21 j 21:56	3°♊38'16		minimum elong	-4565 May 19 j 01:40	20°♑11'33	1°24'20
opposition	-4571 Aug 28 j 15:27	0°♊06'56	-2°-41'-36	max. Earth dist.	-4565 May 19 j 19:19	20°♑17'14	10.11155 AU
min. Earth dist.	-4571 Aug 28 j 10:30	0°♊07'58	7.92863 AU	morning rise	-4565 Jun 06 j 02:08	22°♑29'54	
	-4571 Aug 30 j 00:59	30°♊			-4565 Aug 25 j 06:29	0°♊	
direct	-4571 Nov 02 j 11:51	26°♊39'53		retrograde	-4565 Sep 16 j 19:44	0°♊28'27	
	-4570 Jan 02 j 15:43	0°♊			-4565 Oct 09 j 10:35	30°♊	
evening set	-4570 Feb 13 j 10:58	4°♊55'58		opposition	-4565 Nov 22 j 07:42	27°♊01'46	-1°-27'-8
				min. Earth dist.	-4565 Nov 21 j 19:23	27°♊04'18	8.17470 AU
conjunction	-4570 Mar 03 j 06:45	7°♊17'13	-2°-15'-47	direct	-4564 Jan 29 j 07:28	23°♊31'56	
minimum elong	-4570 Mar 03 j 06:43	7°♊17'13	2°15'58		-4564 May 01 j 01:14	0°♊	
max. Earth dist.	-4570 Mar 03 j 14:58	7°♊19'57	9.89754 AU	evening set	-4564 May 14 j 14:59	1°♊39'02	
morning rise	-4570 Mar 21 j 06:32	9°♊39'44					
	-4570 May 05 j 21:59	15°♊		conjunction	-4564 Jun 01 j 16:12	3°♊55'36	0°-54'-28
retrograde	-4570 Jul 07 j 02:22	18°♊17'54		minimum elong	-4564 Jun 01 j 16:15	3°♊55'37	0°54'22
	-4570 Sep 09 j 14:52	15°♊		max. Earth dist.	-4564 Jun 02 j 07:40	4°♊00'31	10.24266 AU
opposition	-4570 Sep 12 j 08:36	14°♊46'17	-2°-56'-16	morning rise	-4564 Jun 19 j 13:46	6°♊10'58	
min. Earth dist.	-4570 Sep 12 j 00:38	14°♊47'57	7.87927 AU	retrograde	-4564 Sep 29 j 03:03	13°♊56'06	
direct	-4570 Nov 17 j 03:52	11°♊18'02		opposition	-4564 Dec 04 j 20:54	10°♊31'14	0°-48'-10
	-4569 Jan 20 j 21:58	15°♊		min. Earth dist.	-4564 Dec 04 j 10:06	10°♊33'25	8.31292 AU
evening set	-4569 Feb 28 j 23:52	19°♊40'26		direct	-4563 Feb 11 j 13:45	7°♊02'07	
				evening set	-4563 May 28 j 19:32	14°♊59'43	
conjunction	-4569 Mar 18 j 22:48	22°♊03'00	-2°-22'-57		-4563 May 28 j 20:29	15°♊	
minimum elong	-4569 Mar 18 j 22:48	22°♊03'00	2°23'06				
max. Earth dist.	-4569 Mar 19 j 11:12	22°♊07'08	9.86645 AU	conjunction	-4563 Jun 15 j 17:31	17°♊13'09	0°-22'-25
morning rise	-4569 Apr 06 j 00:35	24°♊26'26		minimum elong	-4563 Jun 15 j 17:33	17°♊13'10	0°22'16
	-4569 May 23 j 20:41	0°♋		max. Earth dist.	-4563 Jun 16 j 06:07	17°♊17'05	10.38702 AU
retrograde	-4569 Jul 22 j 05:40	3°♋03'40		morning rise	-4563 Jul 03 j 11:08	19°♋25'10	
	-4569 Sep 21 j 13:20	30°♋		retrograde	-4563 Oct 11 j 23:56	26°♋57'29	
opposition	-4569 Sep 27 j 02:19	29°♋32'13	-2°-59'-24	opposition	-4563 Dec 18 j 01:42	23°♋34'25	0°-8'-1
min. Earth dist.	-4569 Sep 26 j 15:36	29°♋34'28	7.86774 AU	min. Earth dist.	-4563 Dec 17 j 16:13	23°♋36'18	8.46063 AU
direct	-4569 Dec 02 j 00:29	26°♋02'59		direct	-4562 Feb 25 j 11:25	20°♋06'19	
	-4568 Feb 07 j 10:29	0°♋		asc. node	-4562 Mar 04 j 05:03	20°♋08'40	
evening set	-4568 Mar 15 j 16:32	4°♋28'34		evening set	-4562 Jun 11 j 11:48	27°♋53'58	
					-4562 Jun 28 j 16:26	0°♌	
conjunction	-4568 Apr 02 j 18:02	6°♋51'36	-2°-20'-46				
minimum elong	-4568 Apr 02 j 18:05	6°♋51'37	2°20'53	conjunction	-4562 Jun 29 j 05:43	0°♌04'05	0°09'55
max. Earth dist.	-4568 Apr 03 j 09:50	6°♋56'51	9.87439 AU	minimum elong	-4562 Jun 29 j 05:42	0°♌04'04	0°10'05
morning rise	-4568 Apr 20 j 20:58	9°♋15'03		behind sun begin	-4562 Jun 28 j 23:56	0°♌02'19	
retrograde	-4568 Aug 05 j 04:35	17°♋47'04		behind sun end	-4562 Jun 29 j 11:27	0°♌05'49	
opposition	-4568 Oct 10 j 17:54	14°♋16'15	-2°-50'-41	max. Earth dist.	-4562 Jun 29 j 15:38	0°♌07'07	10.53666 AU
min. Earth dist.	-4568 Oct 10 j 05:05	14°♋18'56	7.89484 AU	morning rise	-4562 Jul 16 j 18:35	2°♌12'38	
direct	-4568 Dec 15 j 23:22	10°♋46'20		retrograde	-4562 Oct 24 j 10:51	9°♌33'16	
evening set	-4567 Mar 31 j 08:27	19°♋11'39		opposition	-4562 Dec 30 j 22:20	6°♌11'58	0°31'07
				min. Earth dist.	-4562 Dec 30 j 14:44	6°♌13'27	8.61008 AU
conjunction	-4567 Apr 18 j 11:40	21°♋34'16	-2°-9'-27	direct	-4561 Mar 11 j 00:12	2°♌45'04	
minimum elong	-4567 Apr 18 j 11:44	21°♋34'17	2°09'30	evening set	-4561 Jun 24 j 16:04	10°♌22'57	
max. Earth dist.	-4567 Apr 19 j 05:40	21°♋40'12	9.92068 AU				
morning rise	-4567 May 06 j 14:50	23°♋56'50		conjunction	-4561 Jul 12 j 05:10	12°♌29'42	0°40'46
	-4567 Jun 29 j 17:19	0°♍		minimum elong	-4561 Jul 12 j 05:08	12°♌29'42	0°40'57
retrograde	-4567 Aug 19 j 20:10	2°♍19'58		max. Earth dist.	-4561 Jul 12 j 12:25	12°♌31'54	10.68408 AU
	-4567 Oct 11 j 00:36	30°♍		morning rise	-4561 Jul 29 j 12:49	14°♌34'51	
opposition	-4567 Oct 25 j 05:16	28°♍50'12	-2°-31'-2	retrograde	-4561 Nov 05 j 15:36	21°♌45'23	
min. Earth dist.	-4567 Oct 24 j 15:30	28°♍53'05	7.95849 AU	opposition	-4560 Jan 12 j 11:58	18°♌25'45	1°07'31
direct	-4567 Dec 30 j 21:48	25°♍19'58		min. Earth dist.	-4560 Jan 12 j 07:05	18°♌26'42	8.75416 AU
	-4566 Mar 16 j 03:01	0°♍		direct	-4560 Mar 23 j 02:32	15°♌00'12	
evening set	-4566 Apr 15 j 19:22	3°♍41'41		evening set	-4560 Jul 06 j 08:57	22°♌28'53	
conjunction	-4566 May 03 j 23:13	6°♍03'00	-1°-50'-4	conjunction	-4560 Jul 23 j 16:46	24°♌32'26	1°08'58
minimum elong	-4566 May 03 j 23:17	6°♍03'02	1°50'04	minimum elong	-4560 Jul 23 j 16:43	24°♌32'25	1°09'11
max. Earth dist.	-4566 May 04 j 17:54	6°♍09'06	10.00173 AU	max. Earth dist.	-4560 Jul 23 j 20:48	24°♌33'38	10.82263 AU
morning rise	-4566 May 22 j 01:37	8°♍23'50		morning rise	-4560 Aug 09 j 19:08	26°♌34'23	
retrograde	-4566 Sep 03 j 01:56	16°♍35'27			-4560 Sep 10 j 06:13	0°♎	
opposition	-4566 Nov 08 j 10:21	13°♍07'05	-2°-2'-19	retrograde	-4560 Nov 16 j 11:57	3°♎36'36	
min. Earth dist.	-4566 Nov 07 j 20:50	13°♍09'53	8.05399 AU	opposition	-4559 Jan 23 j 19:26	0°♎18'26	1°39'51
direct	-4565 Jan 14 j 17:35	9°♍36'52		min. Earth dist.	-4559 Jan 23 j 17:57	0°♎18'43	8.88673 AU
evening set	-4565 Apr 30 j 22:24	17°♍52'16			-4559 Jan 27 j 20:26	30°♎	



## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 29

Attention, astronomical year style is used: The year -4559 in astronomical counting style is the year 4560 BCE in historical counting style.

direct	-4559 Apr 04 j 20:21	26° $\Pi$ 54'15		evening set	-4553 Sep 23 j 15:55	10° $\Pi$ 57'42	
	-4559 Jun 08 j 03:09	0° $\mathfrak{D}$		max. Earth dist.	-4553 Oct 09 j 09:39	12° $\Pi$ 46'48	11.18965 AU
evening set	-4559 Jul 18 j 15:36	4° $\mathfrak{D}$ 14'39					
				conjunction	-4553 Oct 10 j 00:27	12° $\Pi$ 51'07	2°19'37
conjunction	-4559 Aug 04 j 18:03	6° $\mathfrak{D}$ 15'15	1°33'34	minimum elong	-4553 Oct 10 j 00:29	12° $\Pi$ 51'08	2°19'42
minimum elong	-4559 Aug 04 j 18:00	6° $\mathfrak{D}$ 15'14	1°33'48	morning rise	-4553 Oct 26 j 08:10	14° $\Pi$ 44'25	
max. Earth dist.	-4559 Aug 04 j 17:50	6° $\mathfrak{D}$ 15'11	10.94677 AU	retrograde	-4552 Feb 03 j 21:35	21° $\Pi$ 38'49	
morning rise	-4559 Aug 21 j 15:34	8° $\mathfrak{D}$ 14'25		opposition	-4552 Apr 14 j 17:43	18° $\Pi$ 22'03	2°44'24
retrograde	-4559 Nov 28 j 02:09	15° $\mathfrak{D}$ 10'09		min. Earth dist.	-4552 Apr 15 j 07:15	18° $\Pi$ 19'35	9.16576 AU
opposition	-4558 Feb 04 j 21:34	11° $\mathfrak{D}$ 53'10	2°07'13	direct	-4552 Jun 24 j 22:22	15° $\Pi$ 04'03	
min. Earth dist.	-4558 Feb 04 j 22:52	11° $\mathfrak{D}$ 52'55	9.00253 AU	evening set	-4552 Oct 03 j 16:43	22° $\Pi$ 00'22	
direct	-4558 Apr 17 j 08:10	8° $\mathfrak{D}$ 30'19		max. Earth dist.	-4552 Oct 19 j 09:13	23° $\Pi$ 49'51	11.13121 AU
evening set	-4558 Jul 30 j 13:12	15° $\mathfrak{D}$ 43'29					
				conjunction	-4552 Oct 20 j 01:35	23° $\Pi$ 54'39	2°08'59
conjunction	-4558 Aug 16 j 10:43	17° $\mathfrak{D}$ 41'34	1°53'52	minimum elong	-4552 Oct 20 j 01:37	23° $\Pi$ 54'39	2°09'02
minimum elong	-4558 Aug 16 j 10:40	17° $\mathfrak{D}$ 41'33	1°54'07	morning rise	-4552 Nov 05 j 10:37	25° $\Pi$ 49'04	
max. Earth dist.	-4558 Aug 16 j 07:04	17° $\mathfrak{D}$ 40'29	11.05181 AU		-4552 Dec 15 j 22:42	0° $\mathfrak{D}$	
morning rise	-4558 Sep 02 j 03:50	19° $\mathfrak{D}$ 38'21		retrograde	-4551 Feb 14 j 18:44	2° $\mathfrak{D}$ 49'17	
retrograde	-4558 Dec 09 j 14:21	26° $\mathfrak{D}$ 29'29			-4551 Apr 20 j 05:21	30° $\mathfrak{R}$ $\Pi$	
opposition	-4557 Feb 16 j 19:46	23° $\mathfrak{D}$ 13'22	2°28'59	opposition	-4551 Apr 26 j 17:40	29° $\Pi$ 31'26	2°28'30
min. Earth dist.	-4557 Feb 16 j 23:11	23° $\mathfrak{D}$ 12'44	9.09711 AU	min. Earth dist.	-4551 Apr 27 j 08:28	29° $\Pi$ 28'43	9.09315 AU
direct	-4557 Apr 29 j 12:37	19° $\mathfrak{D}$ 51'49		direct	-4551 Jul 06 j 12:15	26° $\Pi$ 13'25	
evening set	-4557 Aug 11 j 03:14	26° $\mathfrak{D}$ 58'52			-4551 Sep 15 j 05:04	0° $\mathfrak{D}$	
				evening set	-4551 Oct 14 j 20:28	3° $\mathfrak{D}$ 12'00	
conjunction	-4557 Aug 27 j 20:28	28° $\mathfrak{D}$ 54'54	2°09'25				
minimum elong	-4557 Aug 27 j 20:26	28° $\mathfrak{D}$ 54'53	2°09'38	conjunction	-4551 Oct 31 j 06:33	5° $\mathfrak{D}$ 07'41	1°53'18
max. Earth dist.	-4557 Aug 27 j 14:37	28° $\mathfrak{D}$ 53'12	11.13389 AU	minimum elong	-4551 Oct 31 j 06:36	5° $\mathfrak{D}$ 07'42	1°53'18
	-4557 Sep 06 j 04:19	0° $\mathfrak{D}$		max. Earth dist.	-4551 Oct 30 j 12:44	5° $\mathfrak{D}$ 02'25	11.04627 AU
morning rise	-4557 Sep 13 j 09:39	0° $\mathfrak{D}$ 49'49		morning rise	-4551 Nov 16 j 17:59	7° $\mathfrak{D}$ 03'49	
retrograde	-4557 Dec 20 j 23:57	7° $\mathfrak{D}$ 38'09		retrograde	-4550 Feb 26 j 21:33	14° $\mathfrak{D}$ 11'24	
opposition	-4556 Feb 28 j 15:18	4° $\mathfrak{D}$ 22'35	2°44'44	opposition	-4550 May 08 j 21:55	10° $\mathfrak{D}$ 52'12	2°06'35
min. Earth dist.	-4556 Feb 28 j 21:03	4° $\mathfrak{D}$ 21'32	9.16716 AU	min. Earth dist.	-4550 May 09 j 13:27	10° $\mathfrak{D}$ 49'20	8.99548 AU
direct	-4556 May 10 j 10:58	1° $\mathfrak{D}$ 02'10		direct	-4550 Jul 18 j 04:35	7° $\mathfrak{D}$ 33'54	
evening set	-4556 Aug 21 j 11:22	8° $\mathfrak{D}$ 04'22		evening set	-4550 Oct 26 j 04:47	14° $\mathfrak{D}$ 36'14	
conjunction	-4556 Sep 07 j 00:59	9° $\mathfrak{D}$ 58'52	2°19'53	conjunction	-4550 Nov 11 j 17:06	16° $\mathfrak{D}$ 33'51	1°32'52
minimum elong	-4556 Sep 07 j 00:57	9° $\mathfrak{D}$ 58'52	2°20'04	minimum elong	-4550 Nov 11 j 17:09	16° $\mathfrak{D}$ 33'52	1°32'48
max. Earth dist.	-4556 Sep 06 j 16:34	9° $\mathfrak{D}$ 56'26	11.19030 AU	max. Earth dist.	-4550 Nov 10 j 23:57	16° $\mathfrak{D}$ 28'44	10.93813 AU
morning rise	-4556 Sep 23 j 11:12	11° $\mathfrak{D}$ 52'29		morning rise	-4550 Nov 28 j 07:38	18° $\mathfrak{D}$ 32'13	
	-4556 Oct 22 j 21:40	15° $\mathfrak{D}$		retrograde	-4549 Mar 11 j 08:00	25° $\mathfrak{D}$ 48'41	
retrograde	-4556 Dec 31 j 09:32	18° $\mathfrak{D}$ 39'45		opposition	-4549 May 21 j 07:51	22° $\mathfrak{D}$ 27'51	1°39'03
opposition	-4555 Mar 11 j 09:20	15° $\mathfrak{D}$ 24'25	2°54'14	min. Earth dist.	-4549 May 21 j 22:19	22° $\mathfrak{D}$ 25'09	8.87656 AU
min. Earth dist.	-4555 Mar 11 j 18:06	15° $\mathfrak{D}$ 22'49	9.21042 AU	direct	-4549 Jul 30 j 01:49	19° $\mathfrak{D}$ 09'01	
	-4555 Mar 16 j 23:03	15° $\mathfrak{R}$ $\mathfrak{D}$		evening set	-4549 Nov 06 j 19:31	26° $\mathfrak{D}$ 16'34	
direct	-4555 May 22 j 04:45	12° $\mathfrak{D}$ 04'55					
	-4555 Jul 23 j 22:42	15° $\mathfrak{D}$		conjunction	-4549 Nov 23 j 10:51	28° $\mathfrak{D}$ 16'37	1°08'10
evening set	-4555 Sep 01 j 15:02	19° $\mathfrak{D}$ 03'32		minimum elong	-4549 Nov 23 j 10:54	28° $\mathfrak{D}$ 16'38	1°08'03
				max. Earth dist.	-4549 Nov 22 j 19:24	28° $\mathfrak{D}$ 11'56	10.81090 AU
conjunction	-4555 Sep 18 j 01:50	20° $\mathfrak{D}$ 57'05	2°25'07		-4549 Dec 07 j 17:42	0° $\mathfrak{M}$	
minimum elong	-4555 Sep 18 j 01:49	20° $\mathfrak{D}$ 57'05	2°25'16	morning rise	-4549 Dec 10 j 05:06	0° $\mathfrak{M}$ 17'39	
max. Earth dist.	-4555 Sep 17 j 14:08	20° $\mathfrak{D}$ 53'42	11.21920 AU	retrograde	-4548 Mar 23 j 05:54	7° $\mathfrak{M}$ 44'21	
morning rise	-4555 Oct 04 j 10:18	22° $\mathfrak{D}$ 50'00		opposition	-4548 Jun 02 j 00:14	4° $\mathfrak{M}$ 21'44	1°06'32
retrograde	-4554 Jan 11 j 17:12	29° $\mathfrak{D}$ 37'55		min. Earth dist.	-4548 Jun 02 j 12:49	4° $\mathfrak{M}$ 19'21	8.74103 AU
opposition	-4554 Mar 23 j 02:54	26° $\mathfrak{D}$ 22'26	2°57'21	direct	-4548 Aug 10 j 04:00	1° $\mathfrak{M}$ 02'09	
min. Earth dist.	-4554 Mar 23 j 14:09	26° $\mathfrak{D}$ 20'23	9.22517 AU	evening set	-4548 Nov 17 j 19:01	8° $\mathfrak{M}$ 16'23	
direct	-4554 Jun 02 j 19:36	23° $\mathfrak{D}$ 03'39					
evening set	-4554 Sep 12 j 15:59	0° $\mathfrak{M}$ 00'04		conjunction	-4548 Dec 04 j 13:49	10° $\mathfrak{M}$ 19'15	0°39'52
	-4554 Sep 12 j 15:44	0° $\mathfrak{M}$		minimum elong	-4548 Dec 04 j 13:50	10° $\mathfrak{M}$ 19'15	0°39'44
max. Earth dist.	-4554 Sep 28 j 11:10	1° $\mathfrak{M}$ 49'12	11.21921 AU	max. Earth dist.	-4548 Dec 03 j 23:47	10° $\mathfrak{M}$ 14'56	10.66957 AU
				morning rise	-4548 Dec 21 j 12:22	12° $\mathfrak{M}$ 23'22	
conjunction	-4554 Sep 29 j 01:04	1° $\mathfrak{M}$ 53'14	2°25'02		-4547 Jan 13 j 04:32	15° $\mathfrak{M}$	
minimum elong	-4554 Sep 29 j 01:05	1° $\mathfrak{M}$ 53'15	2°25'08	retrograde	-4547 Apr 05 j 11:57	20° $\mathfrak{M}$ 01'20	
morning rise	-4554 Oct 15 j 08:41	3° $\mathfrak{M}$ 46'02		opposition	-4547 Jun 14 j 23:42	16° $\mathfrak{M}$ 36'52	0°29'59
retrograde	-4553 Jan 23 j 05:33	10° $\mathfrak{M}$ 36'20		min. Earth dist.	-4547 Jun 15 j 10:21	16° $\mathfrak{M}$ 34'50	8.59446 AU
opposition	-4553 Apr 03 j 21:10	7° $\mathfrak{M}$ 20'22	2°54'04		-4547 Jul 06 j 23:05	15° $\mathfrak{R}$ $\mathfrak{M}$	
min. Earth dist.	-4553 Apr 04 j 09:40	7° $\mathfrak{M}$ 18'05	9.21030 AU	direct	-4547 Aug 22 j 10:52	13° $\mathfrak{M}$ 16'18	
direct	-4553 Jun 14 j 10:27	4° $\mathfrak{M}$ 02'04			-4547 Oct 06 j 08:02	15° $\mathfrak{M}$	

Attention, astronomical year style is used: The year -4547 in astronomical counting style is the year 4548 BCE in historical counting style.

evening set	-4547 Nov 30 j 04:49	20° $\mathbb{M}$ 38'44		direct	-4541 Nov 11 j 03:33	5° $\approx$ 11'13	
				evening set	-4540 Feb 22 j 15:10	13° $\approx$ 31'45	
conjunction	-4547 Dec 17 j 03:24	22° $\mathbb{M}$ 44'41	0°08'59		-4540 Mar 04 j 18:37	15° $\approx$	
minimum elong	-4547 Dec 17 j 03:24	22° $\mathbb{M}$ 44'41	0°08'49				
behind sun begin	-4547 Dec 16 j 21:16	22° $\mathbb{M}$ 42'47		conjunction	-4540 Mar 11 j 12:48	15° $\approx$ 54'01	-2°-20'-57
behind sun end	-4547 Dec 17 j 09:31	22° $\mathbb{M}$ 46'34		minimum elong	-4540 Mar 11 j 12:48	15° $\approx$ 54'01	2°21'08
max. Earth dist.	-4547 Dec 16 j 14:52	22° $\mathbb{M}$ 40'47	10.52012 AU	max. Earth dist.	-4540 Mar 12 j 00:49	15° $\approx$ 58'01	9.86242 AU
morning rise	-4546 Jan 03 j 06:37	24° $\mathbb{M}$ 52'07		morning rise	-4540 Mar 29 j 13:48	18° $\approx$ 17'20	
	-4546 Feb 19 j 20:15	0° $\mathcal{A}$		retrograde	-4540 Jul 15 j 03:27	26° $\approx$ 56'05	
desc. node	-4546 Apr 01 j 11:34	2° $\mathcal{A}$ 26'26		opposition	-4540 Sep 20 j 03:18	23° $\approx$ 24'05	-2°-59'-32
retrograde	-4546 Apr 19 j 03:25	2° $\mathcal{A}$ 42'11		min. Earth dist.	-4540 Sep 19 j 16:43	23° $\approx$ 26'18	7.85707 AU
	-4546 Jun 18 j 18:33	30° $\mathbb{R}$ $\mathbb{M}$		direct	-4540 Nov 24 j 22:21	19° $\approx$ 54'55	
opposition	-4546 Jun 28 j 07:10	29° $\mathbb{M}$ 15'52	0°-9'-17	evening set	-4539 Mar 09 j 07:01	28° $\approx$ 19'59	
min. Earth dist.	-4546 Jun 28 j 15:54	29° $\mathbb{M}$ 14'10	8.44331 AU		-4539 Mar 21 j 22:07	0° $\mathbb{H}$	
direct	-4546 Sep 04 j 03:11	25° $\mathbb{M}$ 54'08					
	-4546 Nov 13 j 12:34	0° $\mathcal{A}$		conjunction	-4539 Mar 27 j 07:22	0° $\mathbb{H}$ 43'02	-2°-22'-51
evening set	-4546 Dec 13 j 02:23	3° $\mathcal{A}$ 26'01		minimum elong	-4539 Mar 27 j 07:23	0° $\mathbb{H}$ 43'02	2°22'59
				max. Earth dist.	-4539 Mar 27 j 22:29	0° $\mathbb{H}$ 48'04	9.85709 AU
conjunction	-4546 Dec 30 j 05:02	5° $\mathcal{A}$ 35'13	0°-23'-21	morning rise	-4539 Apr 14 j 09:57	3° $\mathbb{H}$ 06'44	
minimum elong	-4546 Dec 30 j 05:01	5° $\mathcal{A}$ 35'13	0°23'33	retrograde	-4539 Jul 30 j 05:18	11° $\mathbb{H}$ 41'58	
max. Earth dist.	-4546 Dec 29 j 19:37	5° $\mathcal{A}$ 32'15	10.36931 AU	opposition	-4539 Oct 04 j 20:30	8° $\mathbb{H}$ 10'36	-2°-55'-52
morning rise	-4545 Jan 16 j 12:54	7° $\mathcal{A}$ 46'06		min. Earth dist.	-4539 Oct 04 j 08:13	8° $\mathbb{H}$ 13'11	7.87138 AU
retrograde	-4545 May 03 j 05:31	15° $\mathcal{A}$ 48'33		direct	-4539 Dec 09 j 21:32	4° $\mathbb{H}$ 40'47	
opposition	-4545 Jul 11 j 22:43	12° $\mathcal{A}$ 20'29	0°-49'-32	evening set	-4538 Mar 25 j 00:00	13° $\mathbb{H}$ 07'01	
min. Earth dist.	-4545 Jul 12 j 04:43	12° $\mathcal{A}$ 19'18	8.29482 AU				
direct	-4545 Sep 17 j 04:42	8° $\mathcal{A}$ 57'28		conjunction	-4538 Apr 12 j 02:25	15° $\mathbb{H}$ 29'59	-2°-15'-22
evening set	-4545 Dec 26 j 13:09	16° $\mathcal{A}$ 39'43		minimum elong	-4538 Apr 12 j 02:28	15° $\mathbb{H}$ 30'00	2°15'27
				max. Earth dist.	-4538 Apr 12 j 19:45	15° $\mathbb{H}$ 35'44	9.89108 AU
conjunction	-4544 Jan 12 j 20:03	18° $\mathcal{A}$ 52'14	0°-55'-21	morning rise	-4538 Apr 30 j 05:45	17° $\mathbb{H}$ 53'09	
minimum elong	-4544 Jan 12 j 20:01	18° $\mathcal{A}$ 52'13	0°55'35	retrograde	-4538 Aug 14 j 00:07	26° $\mathbb{H}$ 20'54	
max. Earth dist.	-4544 Jan 12 j 14:49	18° $\mathcal{A}$ 50'33	10.22463 AU	opposition	-4538 Oct 19 j 10:20	22° $\mathbb{H}$ 50'37	-2°-40'-41
morning rise	-4544 Jan 30 j 08:17	21° $\mathcal{A}$ 06'29		min. Earth dist.	-4538 Oct 18 j 20:48	22° $\mathbb{H}$ 53'27	7.92381 AU
retrograde	-4544 May 16 j 17:45	29° $\mathcal{A}$ 20'50		direct	-4538 Dec 24 j 21:38	19° $\mathbb{H}$ 20'32	
opposition	-4544 Jul 24 j 21:59	25° $\mathcal{A}$ 51'13	-1°-28'-30	evening set	-4537 Apr 09 j 13:56	27° $\mathbb{H}$ 44'27	
min. Earth dist.	-4544 Jul 25 j 00:29	25° $\mathcal{A}$ 50'42	8.15676 AU		-4537 Apr 26 j 21:49	0° $\mathbb{Y}$	
direct	-4544 Sep 29 j 14:40	22° $\mathcal{A}$ 26'50					
	-4543 Jan 05 j 22:50	0° $\mathcal{B}$		conjunction	-4537 Apr 27 j 17:33	0° $\mathbb{Y}$ 06'29	-1°-59'-14
evening set	-4543 Jan 08 j 13:38	0° $\mathcal{B}$ 19'57		minimum elong	-4537 Apr 27 j 17:37	0° $\mathbb{Y}$ 06'30	1°59'16
				max. Earth dist.	-4537 Apr 28 j 12:10	0° $\mathbb{Y}$ 12'35	9.96199 AU
conjunction	-4543 Jan 26 j 00:40	2° $\mathcal{B}$ 35'35	-1°-25'-11	morning rise	-4537 May 15 j 20:39	2° $\mathbb{Y}$ 28'14	
minimum elong	-4543 Jan 26 j 00:37	2° $\mathcal{B}$ 35'34	1°25'25	retrograde	-4537 Aug 28 j 09:45	10° $\mathbb{Y}$ 45'20	
max. Earth dist.	-4543 Jan 26 j 00:07	2° $\mathcal{B}$ 35'24	10.09403 AU	opposition	-4537 Nov 02 j 18:40	7° $\mathbb{Y}$ 16'31	-2°-15'-31
morning rise	-4543 Feb 12 j 16:52	4° $\mathcal{B}$ 52'57		min. Earth dist.	-4537 Nov 02 j 04:18	7° $\mathbb{Y}$ 19'30	8.01057 AU
retrograde	-4543 May 31 j 13:59	13° $\mathcal{B}$ 17'52		direct	-4536 Jan 08 j 19:44	3° $\mathbb{Y}$ 46'30	
opposition	-4543 Aug 08 j 04:27	9° $\mathcal{B}$ 46'59	-2°-3'-35	evening set	-4536 Apr 23 j 21:16	12° $\mathbb{Y}$ 05'06	
min. Earth dist.	-4543 Aug 08 j 02:58	9° $\mathcal{B}$ 47'17	8.03700 AU				
direct	-4543 Oct 13 j 10:33	6° $\mathcal{B}$ 21'15		conjunction	-4536 May 12 j 00:54	14° $\mathbb{Y}$ 25'20	-1°-35'-59
evening set	-4542 Jan 23 j 03:16	14° $\mathcal{B}$ 24'57		minimum elong	-4536 May 12 j 00:58	14° $\mathbb{Y}$ 25'21	1°35'56
				max. Earth dist.	-4536 May 12 j 19:45	14° $\mathbb{Y}$ 31'27	10.06458 AU
conjunction	-4542 Feb 09 j 18:08	16° $\mathcal{B}$ 43'21	-1°-50'-43	morning rise	-4536 May 30 j 02:29	16° $\mathbb{Y}$ 44'51	
minimum elong	-4542 Feb 09 j 18:04	16° $\mathcal{B}$ 43'20	1°50'57	retrograde	-4536 Sep 10 j 08:51	24° $\mathbb{Y}$ 49'17	
max. Earth dist.	-4542 Feb 09 j 22:09	16° $\mathcal{B}$ 44'41	9.98547 AU	opposition	-4536 Nov 15 j 19:49	21° $\mathbb{Y}$ 22'11	-1°-42'-43
morning rise	-4542 Feb 27 j 13:48	19° $\mathcal{B}$ 03'22		min. Earth dist.	-4536 Nov 15 j 05:28	21° $\mathbb{Y}$ 25'08	8.12561 AU
retrograde	-4542 Jun 15 j 16:20	27° $\mathcal{B}$ 36'30		direct	-4535 Jan 22 j 12:15	17° $\mathbb{Y}$ 52'35	
opposition	-4542 Aug 22 j 16:50	24° $\mathcal{B}$ 04'45	-2°-32'-2	evening set	-4535 May 08 j 18:59	26° $\mathbb{Y}$ 03'26	
min. Earth dist.	-4542 Aug 22 j 11:35	24° $\mathcal{B}$ 05'50	7.94312 AU				
direct	-4542 Oct 27 j 15:20	20° $\mathcal{B}$ 37'44		conjunction	-4535 May 26 j 21:18	28° $\mathbb{Y}$ 21'12	-1°-7'-34
evening set	-4541 Feb 07 j 04:41	28° $\mathcal{B}$ 50'52		minimum elong	-4535 May 26 j 21:21	28° $\mathbb{Y}$ 21'13	1°07'29
	-4541 Feb 15 j 23:21	0° $\approx$		max. Earth dist.	-4535 May 27 j 15:17	28° $\mathbb{Y}$ 26'56	10.19174 AU
					-4535 Jun 08 j 19:43	0° $\mathcal{B}$	
conjunction	-4541 Feb 24 j 23:06	1° $\approx$ 11'32	-2°-9'-53	morning rise	-4535 Jun 13 j 20:14	0° $\mathcal{B}$ 37'51	
minimum elong	-4541 Feb 24 j 23:03	1° $\approx$ 11'31	2°10'06	retrograde	-4535 Sep 23 j 22:29	8° $\mathcal{B}$ 28'45	
max. Earth dist.	-4541 Feb 25 j 07:20	1° $\approx$ 14'16	9.90635 AU	opposition	-4535 Nov 29 j 12:54	5° $\mathcal{B}$ 03'30	-1°-5'00
morning rise	-4541 Mar 14 j 21:44	3° $\approx$ 33'35		min. Earth dist.	-4535 Nov 28 j 23:37	5° $\mathcal{B}$ 06'12	8.26125 AU
retrograde	-4541 Jun 30 j 21:54	12° $\approx$ 11'34		direct	-4534 Feb 05 j 21:13	1° $\mathcal{B}$ 34'36	
opposition	-4541 Sep 06 j 09:11	8° $\approx$ 39'26	-2°-51'-19	evening set	-4534 May 23 j 05:07	9° $\mathcal{B}$ 36'08	
min. Earth dist.	-4541 Sep 06 j 00:57	8° $\approx$ 41'09	7.88165 AU				

Attention, astronomical year style is used: The year -4534 in astronomical counting style is the year 4535 BCE in historical counting style.

conjunction	-4534 Jun 10 j 04:47	11° $\text{♄}$ 50'54	0°-36'-10	direct	-4528 Apr 23 j 18:17	15° $\text{♄}$ 20'55	
minimum elong	-4534 Jun 10 j 04:49	11° $\text{♄}$ 50'55	0°36'02	evening set	-4528 Aug 05 j 16:49	22° $\text{♄}$ 30'43	
max. Earth dist.	-4534 Jun 10 j 20:40	11° $\text{♄}$ 55'53	10.33495 AU				
morning rise	-4534 Jun 28 j 00:04	14° $\text{♄}$ 04'17		conjunction	-4528 Aug 22 j 11:49	24° $\text{♄}$ 27'38	2°03'26
	-4534 Jul 05 j 15:27	15° $\text{♄}$		minimum elong	-4528 Aug 22 j 11:46	24° $\text{♄}$ 27'38	2°03'40
retrograde	-4534 Oct 07 j 00:40	21° $\text{♄}$ 41'49		max. Earth dist.	-4528 Aug 22 j 05:26	24° $\text{♄}$ 25'47	11.09638 AU
opposition	-4534 Dec 12 j 21:29	18° $\text{♄}$ 18'28	0°-25'-4	morning rise	-4528 Sep 08 j 02:37	26° $\text{♄}$ 23'23	
min. Earth dist.	-4534 Dec 12 j 10:44	18° $\text{♄}$ 20'36	8.40865 AU		-4528 Oct 12 j 10:24	0° $\text{♄}$	
	-4533 Feb 06 j 09:35	15° $\text{♄}$		retrograde	-4528 Dec 15 j 14:11	3° $\text{♄}$ 12'58	
direct	-4533 Feb 19 j 22:35	14° $\text{♄}$ 50'28			-4527 Feb 22 j 10:19	30° $\text{♄}$	
	-4533 Mar 05 j 13:08	15° $\text{♄}$		opposition	-4527 Feb 23 j 01:55	29° $\text{♄}$ 57'07	2°38'51
evening set	-4533 Jun 06 j 03:08	22° $\text{♄}$ 42'05		min. Earth dist.	-4527 Feb 23 j 08:39	29° $\text{♄}$ 55'52	9.13264 AU
				direct	-4527 May 05 j 20:09	26° $\text{♄}$ 36'00	
conjunction	-4533 Jun 23 j 22:56	24° $\text{♄}$ 53'32	0°-3'-49		-4527 Jul 12 j 23:49	0° $\text{♄}$	
minimum elong	-4533 Jun 23 j 22:57	24° $\text{♄}$ 53'32	0°03'40	evening set	-4527 Aug 17 j 03:26	3° $\text{♄}$ 40'30	
behind sun begin	-4533 Jun 23 j 15:46	24° $\text{♄}$ 51'20					
behind sun end	-4533 Jun 24 j 06:07	24° $\text{♄}$ 55'44		conjunction	-4527 Sep 02 j 18:28	5° $\text{♄}$ 35'41	2°16'06
max. Earth dist.	-4533 Jun 24 j 11:01	24° $\text{♄}$ 57'15	10.48497 AU	minimum elong	-4527 Sep 02 j 18:26	5° $\text{♄}$ 35'41	2°16'18
morning rise	-4533 Jul 11 j 13:47	27° $\text{♄}$ 03'27		max. Earth dist.	-4527 Sep 02 j 08:56	5° $\text{♄}$ 32'55	11.15936 AU
	-4533 Aug 06 j 04:19	0° $\text{♄}$		morning rise	-4527 Sep 19 j 06:05	7° $\text{♄}$ 29'55	
asc. node	-4533 Aug 07 j 06:10	0° $\text{♄}$ 06'52		retrograde	-4527 Dec 26 j 23:38	14° $\text{♄}$ 17'46	
retrograde	-4533 Oct 19 j 15:35	4° $\text{♄}$ 28'39		opposition	-4526 Mar 06 j 20:17	11° $\text{♄}$ 02'04	2°51'03
opposition	-4533 Dec 25 j 21:42	1° $\text{♄}$ 07'09	0°14'43	min. Earth dist.	-4526 Mar 07 j 04:47	11° $\text{♄}$ 00'31	9.18308 AU
min. Earth dist.	-4533 Dec 25 j 14:10	1° $\text{♄}$ 08'38	8.55879 AU	direct	-4526 May 17 j 17:34	7° $\text{♄}$ 41'48	
	-4532 Jan 09 j 09:19	30° $\text{♄}$		evening set	-4526 Aug 28 j 08:51	14° $\text{♄}$ 42'15	
direct	-4532 Mar 04 j 15:30	27° $\text{♄}$ 40'14			-4526 Aug 30 j 23:13	15° $\text{♄}$	
	-4532 Apr 27 j 19:28	0° $\text{♄}$					
evening set	-4532 Jun 18 j 12:49	5° $\text{♄}$ 22'02		conjunction	-4526 Sep 13 j 20:54	16° $\text{♄}$ 36'17	2°23'35
				minimum elong	-4526 Sep 13 j 20:53	16° $\text{♄}$ 36'17	2°23'45
conjunction	-4532 Jul 06 j 03:54	7° $\text{♄}$ 30'06	0°27'54	max. Earth dist.	-4526 Sep 13 j 09:53	16° $\text{♄}$ 33'05	11.19599 AU
minimum elong	-4532 Jul 06 j 03:52	7° $\text{♄}$ 30'06	0°28'05	morning rise	-4526 Sep 30 j 06:05	18° $\text{♄}$ 29'34	
max. Earth dist.	-4532 Jul 06 j 11:16	7° $\text{♄}$ 32'21	10.63332 AU	retrograde	-4525 Jan 07 j 08:27	25° $\text{♄}$ 17'24	
morning rise	-4532 Jul 23 j 13:49	9° $\text{♄}$ 36'36		opposition	-4525 Mar 18 j 13:56	22° $\text{♄}$ 01'34	2°56'55
retrograde	-4532 Oct 30 j 22:28	16° $\text{♄}$ 51'06		min. Earth dist.	-4525 Mar 19 j 00:06	21° $\text{♄}$ 59'43	9.20628 AU
opposition	-4531 Jan 06 j 14:28	13° $\text{♄}$ 31'17	0°52'27	direct	-4525 May 29 j 08:54	18° $\text{♄}$ 42'01	
min. Earth dist.	-4531 Jan 06 j 09:39	13° $\text{♄}$ 32'13	8.70402 AU	evening set	-4525 Sep 08 j 10:45	25° $\text{♄}$ 39'43	
direct	-4531 Mar 17 j 22:59	10° $\text{♄}$ 05'37					
evening set	-4531 Jul 01 j 10:34	17° $\text{♄}$ 38'04		conjunction	-4525 Sep 24 j 20:40	27° $\text{♄}$ 33'09	2°25'46
				minimum elong	-4525 Sep 24 j 20:40	27° $\text{♄}$ 33'09	2°25'53
conjunction	-4531 Jul 18 j 20:33	19° $\text{♄}$ 42'54	0°57'22	max. Earth dist.	-4525 Sep 24 j 07:52	27° $\text{♄}$ 29'26	11.20517 AU
minimum elong	-4531 Jul 18 j 20:31	19° $\text{♄}$ 42'53	0°57'34	morning rise	-4525 Oct 11 j 04:27	29° $\text{♄}$ 26'04	
max. Earth dist.	-4531 Jul 19 j 00:02	19° $\text{♄}$ 43'57	10.77348 AU		-4525 Oct 16 j 04:51	0° $\text{♄}$	
morning rise	-4531 Aug 05 j 01:21	21° $\text{♄}$ 46'10		retrograde	-4524 Jan 18 j 19:36	6° $\text{♄}$ 15'38	
retrograde	-4531 Nov 11 j 21:40	28° $\text{♄}$ 51'45		opposition	-4524 Mar 29 j 08:03	2° $\text{♄}$ 59'23	2°56'22
opposition	-4530 Jan 19 j 00:33	25° $\text{♄}$ 33'21	1°26'39	min. Earth dist.	-4524 Mar 29 j 20:17	2° $\text{♄}$ 57'09	9.20167 AU
min. Earth dist.	-4530 Jan 18 j 22:01	25° $\text{♄}$ 33'50	8.83855 AU		-4524 May 19 j 11:33	30° $\text{♄}$	
direct	-4530 Mar 30 j 21:38	22° $\text{♄}$ 08'57		direct	-4524 Jun 08 j 23:15	29° $\text{♄}$ 40'21	
evening set	-4530 Jul 13 j 21:45	29° $\text{♄}$ 32'51			-4524 Jun 29 j 06:26	0° $\text{♄}$	
	-4530 Jul 17 j 18:44	0° $\text{♄}$		evening set	-4524 Sep 18 j 11:04	6° $\text{♄}$ 36'41	
conjunction	-4530 Jul 31 j 02:35	1° $\text{♄}$ 34'40	1°23'37	conjunction	-4524 Oct 04 j 19:43	8° $\text{♄}$ 30'07	2°22'37
minimum elong	-4530 Jul 31 j 02:32	1° $\text{♄}$ 34'40	1°23'50	minimum elong	-4524 Oct 04 j 19:45	8° $\text{♄}$ 30'07	2°22'42
max. Earth dist.	-4530 Jul 31 j 03:07	1° $\text{♄}$ 34'50	10.90023 AU	max. Earth dist.	-4524 Oct 04 j 04:31	8° $\text{♄}$ 25'41	11.18684 AU
morning rise	-4530 Aug 17 j 02:11	3° $\text{♄}$ 35'00		morning rise	-4524 Oct 21 j 03:25	10° $\text{♄}$ 23'18	
retrograde	-4530 Nov 23 j 15:43	10° $\text{♄}$ 33'26		retrograde	-4523 Jan 29 j 08:18	17° $\text{♄}$ 16'13	
opposition	-4529 Jan 31 j 04:56	7° $\text{♄}$ 16'13	1°56'15	opposition	-4523 Apr 10 j 03:35	13° $\text{♄}$ 59'17	2°49'24
min. Earth dist.	-4529 Jan 31 j 05:18	7° $\text{♄}$ 16'08	8.95744 AU	min. Earth dist.	-4523 Apr 10 j 17:31	13° $\text{♄}$ 56'45	9.16952 AU
direct	-4529 Apr 12 j 12:17	3° $\text{♄}$ 53'00		direct	-4523 Jun 20 j 11:39	10° $\text{♄}$ 40'35	
evening set	-4529 Jul 25 j 23:27	11° $\text{♄}$ 09'20		evening set	-4523 Sep 29 j 11:18	17° $\text{♄}$ 37'00	
conjunction	-4529 Aug 11 j 23:12	13° $\text{♄}$ 08'29	1°45'49	conjunction	-4523 Oct 15 j 19:56	19° $\text{♄}$ 31'00	2°14'10
minimum elong	-4529 Aug 11 j 23:09	13° $\text{♄}$ 08'28	1°46'03	minimum elong	-4523 Oct 15 j 19:58	19° $\text{♄}$ 31'00	2°14'14
max. Earth dist.	-4529 Aug 11 j 20:39	13° $\text{♄}$ 07'44	11.00907 AU	max. Earth dist.	-4523 Oct 15 j 03:51	19° $\text{♄}$ 26'18	11.14151 AU
morning rise	-4529 Aug 28 j 18:00	15° $\text{♄}$ 06'16		morning rise	-4523 Nov 01 j 04:31	21° $\text{♄}$ 25'03	
retrograde	-4529 Dec 05 j 05:52	21° $\text{♄}$ 59'22		retrograde	-4522 Feb 10 j 02:36	28° $\text{♄}$ 23'01	
opposition	-4528 Feb 12 j 05:07	18° $\text{♄}$ 43'00	2°20'29	opposition	-4522 Apr 22 j 01:52	25° $\text{♄}$ 05'07	2°36'05
min. Earth dist.	-4528 Feb 12 j 08:53	18° $\text{♄}$ 42'18	9.05658 AU	min. Earth dist.	-4522 Apr 22 j 15:59	25° $\text{♄}$ 02'32	9.11061 AU

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 32

Attention, astronomical year style is used: The year -4522 in astronomical counting style is the year 4523 BCE in historical counting style.

direct	-4522 Jul 02 j 02:12	21° $\overline{\text{M}}$ 46'35		morning rise	-4516 Jan 11 j 07:45	2° $\overline{\text{Z}}$ 34'17	
evening set	-4522 Oct 10 j 13:27	28° $\overline{\text{M}}$ 44'30		retrograde	-4516 Apr 26 j 17:18	10° $\overline{\text{Z}}$ 31'15	
	-4522 Oct 21 j 08:28	0° $\underline{\text{A}}$		opposition	-4516 Jul 05 j 14:30	7° $\overline{\text{Z}}$ 04'21	0°-32'-40
				min. Earth dist.	-4516 Jul 05 j 19:50	7° $\overline{\text{Z}}$ 03'18	8.36921 AU
conjunction	-4522 Oct 26 j 23:04	0° $\underline{\text{A}}$ 39'40	2°00'34	direct	-4516 Sep 11 j 01:59	3° $\overline{\text{Z}}$ 42'27	
minimum elong	-4522 Oct 26 j 23:07	0° $\underline{\text{A}}$ 39'40	2°00'35	evening set	-4516 Dec 20 j 06:32	11° $\overline{\text{Z}}$ 19'50	
max. Earth dist.	-4522 Oct 26 j 07:20	0° $\underline{\text{A}}$ 35'01	11.07036 AU				
morning rise	-4522 Nov 12 j 09:21	2° $\underline{\text{A}}$ 35'07		conjunction	-4515 Jan 06 j 11:31	13° $\overline{\text{Z}}$ 30'47	0°-42'-5
retrograde	-4521 Feb 22 j 04:15	9° $\underline{\text{A}}$ 39'43		minimum elong	-4515 Jan 06 j 11:29	13° $\overline{\text{Z}}$ 30'47	0°42'18
opposition	-4521 May 04 j 04:12	6° $\underline{\text{A}}$ 20'40	2°16'38	max. Earth dist.	-4515 Jan 06 j 05:43	13° $\overline{\text{Z}}$ 28'56	10.29913 AU
min. Earth dist.	-4521 May 04 j 17:50	6° $\underline{\text{A}}$ 18'09	9.02676 AU	morning rise	-4515 Jan 23 j 21:44	15° $\overline{\text{Z}}$ 43'27	
direct	-4521 Jul 13 j 17:10	3° $\underline{\text{A}}$ 02'07		retrograde	-4515 May 11 j 02:17	23° $\overline{\text{Z}}$ 52'20	
evening set	-4521 Oct 21 j 19:35	10° $\underline{\text{A}}$ 02'59		opposition	-4515 Jul 19 j 10:28	20° $\overline{\text{Z}}$ 23'55	-1°-12'-25
				min. Earth dist.	-4515 Jul 19 j 13:08	20° $\overline{\text{Z}}$ 23'23	8.23003 AU
conjunction	-4521 Nov 07 j 06:59	11° $\underline{\text{A}}$ 59'50	1°42'04	direct	-4515 Sep 24 j 07:01	17° $\overline{\text{Z}}$ 00'45	
minimum elong	-4521 Nov 07 j 07:02	11° $\underline{\text{A}}$ 59'51	1°42'03	evening set	-4514 Jan 03 j 01:11	24° $\overline{\text{Z}}$ 48'39	
max. Earth dist.	-4521 Nov 06 j 15:12	11° $\underline{\text{A}}$ 55'08	10.97573 AU				
morning rise	-4521 Nov 23 j 20:01	13° $\underline{\text{A}}$ 57'17		conjunction	-4514 Jan 20 j 10:10	27° $\overline{\text{Z}}$ 02'44	-1°-13'-3
retrograde	-4520 Mar 05 j 11:58	21° $\underline{\text{A}}$ 10'02		minimum elong	-4514 Jan 20 j 10:07	27° $\overline{\text{Z}}$ 02'43	1°13'16
opposition	-4520 May 15 j 11:46	17° $\underline{\text{A}}$ 49'36	1°51'22	max. Earth dist.	-4514 Jan 20 j 07:26	27° $\overline{\text{Z}}$ 01'50	10.16529 AU
min. Earth dist.	-4520 May 16 j 01:10	17° $\underline{\text{A}}$ 47'07	8.92091 AU	morning rise	-4514 Feb 07 j 00:37	29° $\overline{\text{Z}}$ 18'34	
direct	-4520 Jul 24 j 10:48	14° $\underline{\text{A}}$ 30'48			-4514 Feb 12 j 12:18	0° $\overline{\text{Z}}$	
evening set	-4520 Nov 01 j 07:31	21° $\underline{\text{A}}$ 36'11		retrograde	-4514 May 25 j 18:27	7° $\overline{\text{Z}}$ 38'26	
				opposition	-4514 Aug 02 j 13:56	4° $\overline{\text{Z}}$ 08'42	-1°-49'-23
conjunction	-4520 Nov 17 j 21:25	23° $\underline{\text{A}}$ 35'12	1°19'04	min. Earth dist.	-4514 Aug 02 j 14:02	4° $\overline{\text{Z}}$ 08'41	8.10430 AU
minimum elong	-4520 Nov 17 j 21:28	23° $\underline{\text{A}}$ 35'13	1°18'59	direct	-4514 Oct 07 j 23:32	0° $\overline{\text{Z}}$ 44'10	
max. Earth dist.	-4520 Nov 17 j 05:36	23° $\underline{\text{A}}$ 30'26	10.86095 AU	evening set	-4513 Jan 17 j 08:57	8° $\overline{\text{Z}}$ 42'39	
morning rise	-4520 Dec 04 j 14:07	25° $\underline{\text{A}}$ 35'07					
	-4519 Jan 15 j 04:43	0° $\overline{\text{M}}$		conjunction	-4513 Feb 03 j 21:53	10° $\overline{\text{Z}}$ 59'38	-1°-40'-36
retrograde	-4519 Mar 18 j 04:37	2° $\overline{\text{M}}$ 57'26		minimum elong	-4513 Feb 03 j 21:49	10° $\overline{\text{Z}}$ 59'37	1°40'49
	-4519 May 22 j 14:45	30° $\overline{\text{R}}$ $\underline{\text{A}}$		max. Earth dist.	-4513 Feb 03 j 22:48	10° $\overline{\text{Z}}$ 59'56	10.04809 AU
opposition	-4519 May 28 j 01:27	29° $\underline{\text{A}}$ 35'30	1°20'48	morning rise	-4513 Feb 21 j 16:07	13° $\overline{\text{Z}}$ 18'19	
min. Earth dist.	-4519 May 28 j 14:24	29° $\underline{\text{A}}$ 33'04	8.79689 AU	retrograde	-4513 Jun 09 j 17:24	21° $\overline{\text{Z}}$ 47'25	
direct	-4519 Aug 05 j 10:31	26° $\underline{\text{A}}$ 16'12		opposition	-4513 Aug 16 j 23:46	18° $\overline{\text{Z}}$ 16'40	-2°-20'-53
	-4519 Oct 12 j 23:20	0° $\overline{\text{M}}$		min. Earth dist.	-4513 Aug 16 j 21:13	18° $\overline{\text{Z}}$ 17'12	7.99877 AU
evening set	-4519 Nov 13 j 03:13	3° $\overline{\text{M}}$ 27'35		direct	-4513 Oct 22 j 01:03	14° $\overline{\text{Z}}$ 50'48	
				evening set	-4512 Feb 01 j 05:16	22° $\overline{\text{Z}}$ 59'19	
conjunction	-4519 Nov 29 j 20:22	5° $\overline{\text{M}}$ 29'13	0°52'09				
minimum elong	-4519 Nov 29 j 20:25	5° $\overline{\text{M}}$ 29'14	0°52'02	conjunction	-4512 Feb 18 j 22:01	25° $\overline{\text{Z}}$ 18'50	-2°-2'-38
max. Earth dist.	-4519 Nov 29 j 06:06	5° $\overline{\text{M}}$ 24'52	10.73016 AU	minimum elong	-4512 Feb 18 j 21:58	25° $\overline{\text{Z}}$ 18'49	2°02'51
morning rise	-4519 Dec 16 j 17:10	7° $\overline{\text{M}}$ 32'01		max. Earth dist.	-4512 Feb 19 j 03:11	25° $\overline{\text{Z}}$ 20'32	9.95454 AU
	-4518 Mar 21 j 02:54	15° $\overline{\text{M}}$		morning rise	-4512 Mar 07 j 19:26	27° $\overline{\text{Z}}$ 39'51	
retrograde	-4518 Mar 31 j 05:52	15° $\overline{\text{M}}$ 05'06			-4512 Mar 26 j 09:56	0° $\approx$	
	-4518 Apr 10 j 10:16	15° $\overline{\text{R}}$ $\overline{\text{M}}$		retrograde	-4512 Jun 23 j 21:07	6° $\approx$ 15'26	
opposition	-4518 Jun 09 j 22:00	11° $\overline{\text{M}}$ 41'32	0°45'46	opposition	-4512 Aug 30 j 14:17	2° $\approx$ 44'04	-2°-44'-16
min. Earth dist.	-4518 Jun 10 j 09:17	11° $\overline{\text{M}}$ 39'24	8.65953 AU	min. Earth dist.	-4512 Aug 30 j 08:36	2° $\approx$ 45'15	7.92064 AU
direct	-4518 Aug 17 j 16:00	8° $\overline{\text{M}}$ 21'34			-4512 Oct 07 j 18:21	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
	-4518 Nov 19 j 18:00	15° $\overline{\text{M}}$		direct	-4512 Nov 04 j 10:23	29° $\overline{\text{Z}}$ 16'55	
evening set	-4518 Nov 25 j 08:31	15° $\overline{\text{M}}$ 40'25			-4512 Dec 01 j 19:43	0° $\approx$	
				evening set	-4511 Feb 15 j 11:57	7° $\approx$ 33'57	
conjunction	-4518 Dec 12 j 05:29	17° $\overline{\text{M}}$ 44'59	0°22'11				
minimum elong	-4518 Dec 12 j 05:30	17° $\overline{\text{M}}$ 44'59	0°22'01	conjunction	-4511 Mar 05 j 08:12	9° $\approx$ 55'24	-2°-17'-17
max. Earth dist.	-4518 Dec 11 j 18:09	17° $\overline{\text{M}}$ 41'29	10.58864 AU	minimum elong	-4511 Mar 05 j 08:10	9° $\approx$ 55'24	2°17'28
morning rise	-4518 Dec 29 j 06:36	19° $\overline{\text{M}}$ 50'56		max. Earth dist.	-4511 Mar 05 j 17:47	9° $\approx$ 58'36	9.89205 AU
retrograde	-4517 Apr 13 j 18:00	27° $\overline{\text{M}}$ 35'45		morning rise	-4511 Mar 23 j 08:09	12° $\approx$ 18'04	
opposition	-4517 Jun 23 j 02:16	24° $\overline{\text{M}}$ 10'30	0°07'24		-4511 Apr 13 j 20:17	15° $\approx$	
min. Earth dist.	-4517 Jun 23 j 10:38	24° $\overline{\text{M}}$ 08'53	8.51477 AU	retrograde	-4511 Jul 09 j 02:36	20° $\approx$ 56'26	
direct	-4517 Aug 30 j 05:26	20° $\overline{\text{M}}$ 49'40		opposition	-4511 Sep 14 j 07:42	17° $\approx$ 24'51	-2°-57'-20
desc. node	-4517 Sep 01 j 15:15	20° $\overline{\text{M}}$ 49'58		min. Earth dist.	-4511 Sep 13 j 22:48	17° $\approx$ 26'43	7.87646 AU
evening set	-4517 Dec 08 j 01:06	28° $\overline{\text{M}}$ 17'14			-4511 Oct 16 j 08:29	15° $\overline{\text{R}}$ $\approx$	
	-4517 Dec 21 j 18:42	0° $\overline{\text{Z}}$		direct	-4511 Nov 19 j 02:19	13° $\approx$ 56'34	
					-4511 Dec 22 j 12:41	15° $\approx$	
conjunction	-4517 Dec 25 j 02:05	0° $\overline{\text{Z}}$ 24'58	0°-9'-46	evening set	-4510 Mar 03 j 01:32	22° $\approx$ 19'31	
minimum elong	-4517 Dec 25 j 02:04	0° $\overline{\text{Z}}$ 24'58	0°09'58				
behind sun begin	-4517 Dec 24 j 20:18	0° $\overline{\text{Z}}$ 23'10		conjunction	-4510 Mar 21 j 00:49	24° $\approx$ 42'11	-2°-23'-8
behind sun end	-4517 Dec 25 j 07:50	0° $\overline{\text{Z}}$ 26'46		minimum elong	-4510 Mar 21 j 00:49	24° $\approx$ 42'11	2°23'17
max. Earth dist.	-4517 Dec 24 j 17:36	0° $\overline{\text{Z}}$ 22'19	10.44266 AU	max. Earth dist.	-4510 Mar 21 j 14:28	24° $\approx$ 46'44	9.86621 AU

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 33

Attention, astronomical year style is used: The year -4510 in astronomical counting style is the year 4511 BCE in historical counting style.

morning rise	-4510 Apr 08 j 02:38	27° <del>30</del> 05'39		evening set	-4504 May 30 j 15:47	17° <del>8</del> 25'44	
	-4510 May 01 j 07:50	0° <del>3</del>					
retrograde	-4510 Jul 24 j 06:39	5° <del>3</del> 42'32		conjunction	-4504 Jun 17 j 13:24	19° <del>8</del> 38'44	0°-17'-43
opposition	-4510 Sep 29 j 01:24	2° <del>3</del> 11'12	-2°-58'-46	minimum elong	-4504 Jun 17 j 13:25	19° <del>8</del> 38'45	0°17'35
min. Earth dist.	-4510 Sep 28 j 13:50	2° <del>3</del> 13'37	7.87014 AU	max. Earth dist.	-4504 Jun 18 j 02:01	19° <del>8</del> 42'40	10.40856 AU
	-4510 Oct 27 j 07:15	30° <del>3</del>		morning rise	-4504 Jul 05 j 06:27	21° <del>8</del> 50'17	
direct	-4510 Dec 03 j 23:37	28° <del>3</del> 41'58		retrograde	-4504 Oct 13 j 15:50	29° <del>8</del> 20'52	
	-4509 Jan 10 j 07:59	0° <del>3</del>		opposition	-4504 Dec 19 j 19:18	25° <del>8</del> 58'02	0°-2'-15
evening set	-4509 Mar 18 j 18:19	7° <del>3</del> 07'40		min. Earth dist.	-4504 Dec 19 j 09:35	25° <del>8</del> 59'58	8.48234 AU
				asc. node	-4503 Jan 10 j 08:30	24° <del>8</del> 19'37	
conjunction	-4509 Apr 05 j 20:03	9° <del>3</del> 30'41	-2°-19'-37	direct	-4503 Feb 27 j 07:52	22° <del>8</del> 30'07	
minimum elong	-4509 Apr 05 j 20:05	9° <del>3</del> 30'41	2°19'43		-4503 Jun 11 j 00:06	0° <del>3</del>	
max. Earth dist.	-4509 Apr 06 j 12:45	9° <del>3</del> 36'13	9.87941 AU	evening set	-4503 Jun 13 j 06:25	0° <del>3</del> 16'16	
morning rise	-4509 Apr 23 j 23:00	11° <del>3</del> 54'04					
retrograde	-4509 Aug 08 j 04:55	20° <del>3</del> 25'12		conjunction	-4503 Jun 30 j 23:49	2° <del>3</del> 25'54	0°14'28
opposition	-4509 Oct 13 j 16:39	16° <del>3</del> 54'33	-2°-48'-25	minimum elong	-4503 Jun 30 j 23:48	2° <del>3</del> 25'53	0°14'39
min. Earth dist.	-4509 Oct 13 j 03:28	16° <del>3</del> 57'19	7.90233 AU	behind sun begin	-4503 Jun 30 j 20:54	2° <del>3</del> 25'00	
direct	-4509 Dec 18 j 23:05	13° <del>3</del> 24'41		behind sun end	-4503 Jul 01 j 02:43	2° <del>3</del> 26'46	
evening set	-4508 Apr 02 j 09:54	21° <del>3</del> 49'40		max. Earth dist.	-4503 Jul 01 j 10:08	2° <del>3</del> 29'03	10.55838 AU
				morning rise	-4503 Jul 18 j 11:58	4° <del>3</del> 33'57	
conjunction	-4508 Apr 20 j 13:13	24° <del>3</del> 12'09	-2°-7'-3	retrograde	-4503 Oct 26 j 03:06	11° <del>3</del> 53'02	
minimum elong	-4508 Apr 20 j 13:16	24° <del>3</del> 12'10	2°07'06	opposition	-4502 Jan 01 j 14:54	8° <del>3</del> 31'56	0°36'33
max. Earth dist.	-4508 Apr 21 j 07:30	24° <del>3</del> 18'10	9.93065 AU	min. Earth dist.	-4502 Jan 01 j 07:45	8° <del>3</del> 33'20	8.63156 AU
morning rise	-4508 May 08 j 16:21	26° <del>3</del> 34'32		direct	-4502 Mar 12 j 17:52	5° <del>3</del> 05'12	
	-4508 Jun 05 j 16:51	0° <del>3</del>		evening set	-4502 Jun 26 j 08:58	12° <del>3</del> 41'36	
retrograde	-4508 Aug 21 j 18:40	4° <del>3</del> 56'20					
opposition	-4508 Oct 27 j 03:23	1° <del>3</del> 26'49	-2°-27'-19	conjunction	-4502 Jul 13 j 21:26	14° <del>3</del> 47'53	0°45'00
min. Earth dist.	-4508 Oct 26 j 13:50	1° <del>3</del> 29'39	7.97060 AU	minimum elong	-4502 Jul 13 j 21:25	14° <del>3</del> 47'52	0°45'12
	-4508 Nov 14 j 01:02	30° <del>3</del>		max. Earth dist.	-4502 Jul 14 j 04:27	14° <del>3</del> 50'00	10.70501 AU
direct	-4507 Jan 01 j 21:45	27° <del>3</del> 56'39		morning rise	-4502 Jul 31 j 04:25	16° <del>3</del> 52'33	
	-4507 Feb 19 j 03:07	0° <del>3</del>		retrograde	-4502 Nov 07 j 05:23	24° <del>3</del> 01'41	
evening set	-4507 Apr 17 j 20:03	6° <del>3</del> 17'38		opposition	-4501 Jan 14 j 03:26	20° <del>3</del> 42'14	1°12'24
				min. Earth dist.	-4501 Jan 13 j 23:28	20° <del>3</del> 42'59	8.77450 AU
conjunction	-4507 May 05 j 23:48	8° <del>3</del> 38'42	-1°-46'-40	direct	-4501 Mar 25 j 18:48	17° <del>3</del> 16'47	
minimum elong	-4507 May 05 j 23:52	8° <del>3</del> 38'44	1°46'40	evening set	-4501 Jul 09 j 00:24	24° <del>3</del> 44'08	
max. Earth dist.	-4507 May 06 j 18:08	8° <del>3</del> 44'41	10.01599 AU				
morning rise	-4507 May 24 j 02:05	10° <del>3</del> 59'15		conjunction	-4501 Jul 26 j 07:29	26° <del>3</del> 47'13	1°12'43
retrograde	-4507 Sep 04 j 22:14	19° <del>3</del> 09'14		minimum elong	-4501 Jul 26 j 07:26	26° <del>3</del> 47'13	1°12'56
opposition	-4507 Nov 10 j 07:34	15° <del>3</del> 41'09	-1°-57'-32	max. Earth dist.	-4501 Jul 26 j 10:20	26° <del>3</del> 48'04	10.84195 AU
min. Earth dist.	-4507 Nov 09 j 18:26	15° <del>3</del> 43'52	8.07001 AU	morning rise	-4501 Aug 12 j 09:20	28° <del>3</del> 48'47	
direct	-4506 Jan 16 j 16:38	12° <del>3</del> 11'03			-4501 Aug 22 j 17:23	0° <del>3</del>	
evening set	-4506 May 02 j 21:46	20° <del>3</del> 25'21		retrograde	-4501 Nov 18 j 23:45	5° <del>3</del> 49'48	
				opposition	-4500 Jan 26 j 09:48	2° <del>3</del> 31'45	1°44'03
conjunction	-4506 May 21 j 00:43	22° <del>3</del> 44'17	-1°-20'-15	min. Earth dist.	-4500 Jan 26 j 08:48	2° <del>3</del> 31'56	8.90510 AU
minimum elong	-4506 May 21 j 00:47	22° <del>3</del> 44'18	1°20'11		-4500 Mar 04 j 02:53	30° <del>3</del>	
max. Earth dist.	-4506 May 21 j 17:47	22° <del>3</del> 49'46	10.12930 AU	direct	-4500 Apr 06 j 13:21	29° <del>3</del> 07'40	
morning rise	-4506 Jun 08 j 01:03	25° <del>3</del> 02'17			-4500 May 09 j 16:53	0° <del>3</del>	
	-4506 Jul 21 j 23:49	0° <del>3</del>		evening set	-4500 Jul 20 j 05:36	6° <del>3</del> 26'51	
retrograde	-4506 Sep 18 j 15:12	2° <del>3</del> 59'03					
	-4506 Nov 18 j 13:35	30° <del>3</del>		conjunction	-4500 Aug 06 j 07:25	8° <del>3</del> 27'04	1°36'43
opposition	-4506 Nov 24 j 03:48	29° <del>3</del> 32'39	-1°-21'-38	minimum elong	-4500 Aug 06 j 07:22	8° <del>3</del> 27'03	1°36'56
min. Earth dist.	-4506 Nov 23 j 15:35	29° <del>3</del> 35'09	8.19375 AU	max. Earth dist.	-4500 Aug 06 j 06:21	8° <del>3</del> 26'45	10.96379 AU
direct	-4505 Jan 31 j 05:20	26° <del>3</del> 02'58		morning rise	-4500 Aug 23 j 04:25	10° <del>3</del> 25'51	
	-4505 Apr 11 j 09:20	0° <del>3</del>		retrograde	-4500 Nov 29 j 14:44	17° <del>3</del> 20'40	
evening set	-4505 May 17 j 12:48	4° <del>3</del> 08'44		opposition	-4499 Feb 06 j 11:07	14° <del>3</del> 03'44	2°10'37
				min. Earth dist.	-4499 Feb 06 j 12:14	14° <del>3</del> 03'32	9.01824 AU
conjunction	-4505 Jun 04 j 13:42	6° <del>3</del> 24'54	0°-49'-54	direct	-4499 Apr 18 j 23:19	10° <del>3</del> 41'01	
minimum elong	-4505 Jun 04 j 13:44	6° <del>3</del> 24'55	0°49'47	evening set	-4499 Aug 01 j 01:47	17° <del>3</del> 53'06	
max. Earth dist.	-4505 Jun 05 j 04:39	6° <del>3</del> 29'38	10.26289 AU				
morning rise	-4505 Jun 22 j 10:55	8° <del>3</del> 39'50		conjunction	-4499 Aug 17 j 22:51	19° <del>3</del> 50'51	1°56'20
	-4505 Aug 23 j 14:03	15° <del>3</del>		minimum elong	-4499 Aug 17 j 22:48	19° <del>3</del> 50'50	1°56'34
retrograde	-4505 Oct 01 j 20:42	16° <del>3</del> 23'10		max. Earth dist.	-4499 Aug 17 j 19:21	19° <del>3</del> 49'49	11.06593 AU
	-4505 Nov 10 j 18:24	15° <del>3</del>		morning rise	-4499 Sep 03 j 15:24	21° <del>3</del> 47'20	
opposition	-4505 Dec 07 j 15:44	12° <del>3</del> 58'33	0°-42'-22	retrograde	-4499 Dec 11 j 01:56	28° <del>3</del> 37'47	
min. Earth dist.	-4505 Dec 07 j 04:35	13° <del>3</del> 00'48	8.33388 AU	opposition	-4498 Feb 18 j 08:38	25° <del>3</del> 21'42	2°31'31
direct	-4504 Feb 14 j 11:15	9° <del>3</del> 29'36		min. Earth dist.	-4498 Feb 18 j 12:11	25° <del>3</del> 21'03	9.10968 AU
	-4504 May 10 j 00:08	15° <del>3</del>		direct	-4498 May 01 j 02:00	22° <del>3</del> 00'15	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 34

Attention, astronomical year style is used: The year -4498 in astronomical counting style is the year 4499 BCE in historical counting style.

evening set	-4498 Aug 12 j 14:51	29° <del>5</del> 06'26			-4492 May 21 j 11:55	30° <del>R</del> <del>7</del>	
	-4498 Aug 20 j 09:28	0° <del>Q</del>		direct	-4492 Jul 07 j 23:06	28° <del>7</del> 19'50	
					-4492 Aug 22 j 18:32	0° <del>Q</del>	
conjunction	-4498 Aug 29 j 07:40	1° <del>Q</del> 02'12	2°11'09	evening set	-4492 Oct 16 j 06:44	5° <del>Q</del> 18'42	
minimum elong	-4498 Aug 29 j 07:38	1° <del>Q</del> 02'12	2°11'22				
max. Earth dist.	-4498 Aug 29 j 01:35	1° <del>Q</del> 00'26	11.14469 AU	conjunction	-4492 Nov 01 j 17:04	7° <del>Q</del> 14'33	1°50'40
morning rise	-4498 Sep 14 j 20:25	2° <del>Q</del> 56'53		minimum elong	-4492 Nov 01 j 17:06	7° <del>Q</del> 14'34	1°50'40
retrograde	-4498 Dec 22 j 11:37	9° <del>Q</del> 44'45		max. Earth dist.	-4492 Oct 31 j 23:19	7° <del>Q</del> 09'18	11.03753 AU
opposition	-4497 Mar 02 j 03:34	6° <del>Q</del> 29'14	2°46'23	morning rise	-4492 Nov 18 j 04:49	9° <del>Q</del> 10'54	
min. Earth dist.	-4497 Mar 02 j 10:18	6° <del>Q</del> 28'00	9.17629 AU	retrograde	-4491 Feb 28 j 09:47	16° <del>Q</del> 19'19	
direct	-4497 May 12 j 23:15	3° <del>Q</del> 08'54		opposition	-4491 May 10 j 10:47	13° <del>Q</del> 00'00	2°03'01
evening set	-4497 Aug 23 j 22:13	10° <del>Q</del> 10'26		min. Earth dist.	-4491 May 11 j 02:12	12° <del>Q</del> 57'09	8.98515 AU
				direct	-4491 Jul 19 j 16:43	9° <del>Q</del> 41'43	
conjunction	-4497 Sep 09 j 11:24	12° <del>Q</del> 04'46	2°20'53	evening set	-4491 Oct 27 j 15:38	16° <del>Q</del> 44'33	
minimum elong	-4497 Sep 09 j 11:23	12° <del>Q</del> 04'45	2°21'03	max. Earth dist.	-4491 Nov 12 j 11:42	18° <del>Q</del> 37'26	10.92636 AU
max. Earth dist.	-4497 Sep 09 j 01:49	12° <del>Q</del> 01'59	11.19758 AU				
morning rise	-4497 Sep 25 j 21:27	13° <del>Q</del> 58'14		conjunction	-4491 Nov 13 j 04:23	18° <del>Q</del> 42'26	1°29'38
	-4497 Oct 05 j 02:31	15° <del>Q</del>		minimum elong	-4491 Nov 13 j 04:26	18° <del>Q</del> 42'27	1°29'35
retrograde	-4496 Jan 02 j 18:51	20° <del>Q</del> 45'16		morning rise	-4491 Nov 29 j 19:14	20° <del>Q</del> 41'04	
opposition	-4496 Mar 12 j 21:18	17° <del>Q</del> 29'57	2°54'58	retrograde	-4490 Mar 12 j 23:34	27° <del>Q</del> 58'35	
min. Earth dist.	-4496 Mar 13 j 06:47	17° <del>Q</del> 28'13	9.21593 AU	opposition	-4490 May 22 j 21:20	24° <del>Q</del> 37'38	1°34'47
	-4496 Apr 20 j 15:59	15° <del>R</del> <del>Q</del>		min. Earth dist.	-4490 May 23 j 11:22	24° <del>Q</del> 35'01	8.86329 AU
direct	-4496 May 23 j 16:12	14° <del>Q</del> 10'32		direct	-4490 Jul 31 j 14:20	21° <del>Q</del> 18'49	
	-4496 Jun 25 j 05:21	15° <del>Q</del>		evening set	-4490 Nov 08 j 07:23	28° <del>Q</del> 27'04	
evening set	-4496 Sep 03 j 01:15	21° <del>Q</del> 08'43			-4490 Nov 21 j 04:37	0° <del>M</del>	
conjunction	-4496 Sep 19 j 11:49	23° <del>Q</del> 02'09	2°25'21	conjunction	-4490 Nov 24 j 23:04	0° <del>M</del> 27'26	1°04'25
minimum elong	-4496 Sep 19 j 11:48	23° <del>Q</del> 02'09	2°25'29	minimum elong	-4490 Nov 24 j 23:07	0° <del>M</del> 27'27	1°04'19
max. Earth dist.	-4496 Sep 18 j 23:40	22° <del>Q</del> 58'38	11.22291 AU	max. Earth dist.	-4490 Nov 24 j 07:14	0° <del>M</del> 22'38	10.79636 AU
morning rise	-4496 Oct 05 j 20:11	24° <del>Q</del> 55'00		morning rise	-4490 Dec 11 j 17:46	2° <del>M</del> 28'49	
	-4496 Nov 27 j 15:05	0° <del>7</del>		retrograde	-4489 Mar 25 j 21:21	9° <del>M</del> 56'44	
retrograde	-4495 Jan 13 j 04:57	1° <del>7</del> 42'58		opposition	-4489 Jun 04 j 14:40	6° <del>M</del> 34'01	1°01'41
	-4495 Mar 02 j 13:13	30° <del>R</del> <del>Q</del>		min. Earth dist.	-4489 Jun 05 j 03:19	6° <del>M</del> 31'37	8.72525 AU
opposition	-4495 Mar 24 j 14:43	28° <del>Q</del> 27'28	2°57'11	direct	-4489 Aug 12 j 14:57	3° <del>M</del> 14'24	
min. Earth dist.	-4495 Mar 25 j 01:46	28° <del>Q</del> 25'27	9.22710 AU	evening set	-4489 Nov 20 j 08:02	10° <del>M</del> 29'36	
direct	-4495 Jun 04 j 08:37	25° <del>Q</del> 08'46					
	-4495 Aug 26 j 00:38	0° <del>7</del>		conjunction	-4489 Dec 07 j 03:10	12° <del>M</del> 32'48	0°35'44
evening set	-4495 Sep 14 j 01:51	2° <del>7</del> 04'55		minimum elong	-4489 Dec 07 j 03:11	12° <del>M</del> 32'49	0°35'35
				max. Earth dist.	-4489 Dec 06 j 12:21	12° <del>M</del> 28'15	10.65290 AU
conjunction	-4495 Sep 30 j 10:57	3° <del>7</del> 58'05	2°24'31	morning rise	-4489 Dec 24 j 02:19	14° <del>M</del> 37'18	
minimum elong	-4495 Sep 30 j 10:58	3° <del>7</del> 58'05	2°24'37		-4489 Dec 27 j 05:55	15° <del>M</del>	
max. Earth dist.	-4495 Sep 29 j 21:32	3° <del>7</del> 54'11	11.21948 AU	retrograde	-4488 Apr 07 j 03:42	22° <del>M</del> 16'43	
morning rise	-4495 Oct 16 j 18:29	5° <del>7</del> 50'52		opposition	-4488 Jun 16 j 15:18	18° <del>M</del> 52'06	0°24'42
retrograde	-4494 Jan 24 j 17:05	12° <del>7</del> 41'24		min. Earth dist.	-4488 Jun 17 j 02:29	18° <del>M</del> 49'58	8.57692 AU
opposition	-4494 Apr 05 j 08:58	9° <del>7</del> 25'24	2°52'59	direct	-4488 Aug 24 j 01:03	15° <del>M</del> 31'27	
min. Earth dist.	-4494 Apr 05 j 21:15	9° <del>7</del> 23'10	9.20894 AU	evening set	-4488 Dec 01 j 19:12	22° <del>M</del> 55'03	
direct	-4494 Jun 15 j 20:47	6° <del>7</del> 07'12					
evening set	-4494 Sep 25 j 01:47	13° <del>7</del> 02'44		conjunction	-4488 Dec 18 j 18:14	25° <del>M</del> 01'23	0°04'37
				minimum elong	-4488 Dec 18 j 18:15	25° <del>M</del> 01'23	0°04'27
conjunction	-4494 Oct 11 j 10:19	14° <del>7</del> 56'12	2°18'22	behind sun begin	-4488 Dec 18 j 11:17	24° <del>M</del> 59'14	
minimum elong	-4494 Oct 11 j 10:21	14° <del>7</del> 56'12	2°18'27	behind sun end	-4488 Dec 19 j 01:12	25° <del>M</del> 03'32	
max. Earth dist.	-4494 Oct 10 j 19:15	14° <del>7</del> 51'48	11.18683 AU	max. Earth dist.	-4488 Dec 18 j 05:45	24° <del>M</del> 57'30	10.50206 AU
morning rise	-4494 Oct 27 j 18:09	16° <del>7</del> 49'34		morning rise	-4487 Jan 04 j 22:02	27° <del>M</del> 09'15	
retrograde	-4493 Feb 05 j 09:22	23° <del>7</del> 44'23			-4487 Jan 29 j 07:06	0° <del>7</del>	
opposition	-4493 Apr 17 j 05:44	20° <del>7</del> 27'34	2°42'27	desc. node	-4487 Feb 10 j 09:15	1° <del>7</del> 15'42	
min. Earth dist.	-4493 Apr 17 j 19:52	20° <del>7</del> 24'59	9.16143 AU	retrograde	-4487 Apr 20 j 21:08	5° <del>7</del> 00'52	
direct	-4493 Jun 27 j 09:21	17° <del>7</del> 09'35		opposition	-4487 Jun 29 j 23:51	1° <del>7</del> 34'23	0°-14'-47
evening set	-4493 Oct 06 j 02:43	24° <del>7</del> 06'00		min. Earth dist.	-4487 Jun 30 j 08:49	1° <del>7</del> 32'38	8.42485 AU
					-4487 Jul 20 j 23:20	30° <del>R</del> <del>M</del>	
conjunction	-4493 Oct 22 j 11:36	26° <del>7</del> 00'23	2°07'02	direct	-4487 Sep 05 j 18:42	28° <del>M</del> 12'32	
minimum elong	-4493 Oct 22 j 11:38	26° <del>7</del> 00'23	2°07'04		-4487 Oct 20 j 22:05	0° <del>7</del>	
max. Earth dist.	-4493 Oct 21 j 18:24	25° <del>7</del> 55'20	11.12549 AU	evening set	-4487 Dec 14 j 18:26	5° <del>7</del> 45'44	
morning rise	-4493 Nov 07 j 20:57	27° <del>7</del> 54'57					
	-4493 Nov 26 j 16:40	0° <del>Q</del>		conjunction	-4487 Dec 31 j 21:38	7° <del>7</del> 55'21	0°-27'-46
retrograde	-4492 Feb 17 j 06:22	4° <del>Q</del> 55'44		minimum elong	-4487 Dec 31 j 21:36	7° <del>7</del> 55'20	0°27'59
opposition	-4492 Apr 28 j 06:04	1° <del>Q</del> 37'50	2°25'43	max. Earth dist.	-4487 Dec 31 j 12:59	7° <del>7</del> 52'36	10.35069 AU
min. Earth dist.	-4492 Apr 28 j 21:32	1° <del>Q</del> 35'00	9.08585 AU	morning rise	-4486 Jan 18 j 05:54	10° <del>7</del> 06'39	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), AstroDienst AG 7-Dez-2017 14:35, page 35

Attention, astronomical year style is used: The year -4486 in astronomical counting style is the year 4487 BCE in historical counting style.

retrograde	-4486 May 05 j 01:01	18°♄10'41		morning rise	-4480 Apr 16 j 10:23	5°♄41'12	
opposition	-4486 Jul 13 j 16:26	14°♄42'26	0°-54'-58	retrograde	-4480 Aug 01 j 02:45	14°♄15'56	
min. Earth dist.	-4486 Jul 13 j 21:58	14°♄41'20	8.27638 AU	opposition	-4480 Oct 06 j 17:43	10°♄44'35	-2°-54'-23
direct	-4486 Sep 18 j 20:38	11°♄19'17		min. Earth dist.	-4480 Oct 06 j 05:11	10°♄47'13	7.87230 AU
evening set	-4486 Dec 28 j 06:57	19°♄02'58		direct	-4480 Dec 11 j 20:45	7°♄14'38	
				evening set	-4479 Mar 26 j 23:52	15°♄40'53	
conjunction	-4485 Jan 14 j 14:20	21°♄15'52	0°-59'-35				
minimum elong	-4485 Jan 14 j 14:18	21°♄15'51	0°59'48	conjunction	-4479 Apr 14 j 02:34	18°♄03'51	-2°-13'-34
max. Earth dist.	-4485 Jan 14 j 09:57	21°♄14'28	10.20650 AU	minimum elong	-4479 Apr 14 j 02:37	18°♄03'52	2°13'38
morning rise	-4485 Feb 01 j 02:54	23°♄30'31		max. Earth dist.	-4479 Apr 14 j 20:22	18°♄09'45	9.89428 AU
	-4485 Apr 03 j 16:59	0°♄		morning rise	-4479 May 02 j 05:57	20°♄26'57	
retrograde	-4485 May 19 j 14:10	1°♄46'24		retrograde	-4479 Aug 15 j 20:11	28°♄53'47	
	-4485 Jul 05 j 06:39	30°♄		opposition	-4479 Oct 21 j 07:10	25°♄23'33	-2°-37'-42
opposition	-4485 Jul 27 j 16:51	28°♄16'36	-1°-33'-32	min. Earth dist.	-4479 Oct 20 j 16:57	25°♄26'32	7.92903 AU
min. Earth dist.	-4485 Jul 27 j 18:29	28°♄16'16	8.13942 AU	direct	-4479 Dec 26 j 20:16	21°♄53'23	
direct	-4485 Oct 02 j 08:27	24°♄52'04			-4478 Apr 09 j 08:18	0°♄	
	-4485 Dec 19 j 16:36	0°♄		evening set	-4478 Apr 11 j 13:09	0°♄16'55	
evening set	-4484 Jan 11 j 09:09	2°♄46'37					
conjunction	-4484 Jan 28 j 20:35	5°♄02'38	-1°-28'-56	conjunction	-4478 Apr 29 j 16:58	2°♄38'51	-1°-56'-21
minimum elong	-4484 Jan 28 j 20:31	5°♄02'37	1°29'10	minimum elong	-4478 Apr 29 j 17:02	2°♄38'52	1°56'21
max. Earth dist.	-4484 Jan 28 j 20:29	5°♄02'36	10.07755 AU	max. Earth dist.	-4478 Apr 30 j 12:23	2°♄45'13	9.96933 AU
morning rise	-4484 Feb 15 j 13:08	7°♄20'21		morning rise	-4478 May 17 j 19:55	5°♄00'25	
retrograde	-4484 Jun 02 j 11:34	15°♄46'36		retrograde	-4478 Aug 30 j 05:20	13°♄16'20	
opposition	-4484 Aug 10 j 00:21	12°♄15'33	-2°-7'-51	opposition	-4478 Nov 04 j 14:49	9°♄47'36	-2°-11'-18
min. Earth dist.	-4484 Aug 09 j 22:13	12°♄15'59	8.02185 AU	min. Earth dist.	-4478 Nov 03 j 23:47	9°♄50'43	8.01967 AU
direct	-4484 Oct 15 j 05:06	8°♄49'38		direct	-4477 Jan 10 j 16:51	6°♄17'35	
evening set	-4483 Jan 25 j 00:35	16°♄54'42		evening set	-4477 Apr 26 j 19:36	14°♄35'27	
conjunction	-4483 Feb 11 j 15:45	19°♄13'26	-1°-53'-42	conjunction	-4477 May 14 j 23:17	16°♄55'30	-1°-32'-14
minimum elong	-4483 Feb 11 j 15:41	19°♄13'25	1°53'55	minimum elong	-4477 May 14 j 23:21	16°♄55'32	1°32'11
max. Earth dist.	-4483 Feb 11 j 19:41	19°♄14'44	9.97170 AU	max. Earth dist.	-4477 May 15 j 18:58	17°♄01'53	10.07555 AU
morning rise	-4483 Mar 01 j 11:47	21°♄33'46		morning rise	-4477 Jun 02 j 00:37	19°♄14'46	
	-4483 Jun 05 j 15:30	0°♄		retrograde	-4477 Sep 13 j 04:47	27°♄17'49	
retrograde	-4483 Jun 17 j 14:54	0°♄07'51		opposition	-4477 Nov 18 j 15:07	23°♄50'52	-1°-37'-38
	-4483 Jun 29 j 14:06	30°♄		min. Earth dist.	-4477 Nov 18 j 00:38	23°♄53'50	8.13800 AU
opposition	-4483 Aug 24 j 13:27	26°♄35'59	-2°-35'-11	direct	-4476 Jan 25 j 07:58	20°♄21'18	
min. Earth dist.	-4483 Aug 24 j 08:06	26°♄37'06	7.93114 AU	evening set	-4476 May 10 j 16:17	28°♄31'15	
direct	-4483 Oct 29 j 10:34	23°♄08'45			-4476 May 22 j 09:28	0°♄	
	-4482 Jan 29 j 07:51	0°♄					
evening set	-4482 Feb 09 j 03:19	1°♄23'05		conjunction	-4476 May 28 j 18:24	0°♄48'44	-1°-3'-16
				minimum elong	-4476 May 28 j 18:27	0°♄48'45	1°03'10
conjunction	-4482 Feb 26 j 22:00	3°♄43'59	-2°-11'-51	max. Earth dist.	-4476 May 29 j 12:48	0°♄54'36	10.20567 AU
minimum elong	-4482 Feb 26 j 21:57	3°♄43'59	2°12'03	morning rise	-4476 Jun 15 j 16:59	3°♄05'05	
max. Earth dist.	-4482 Feb 27 j 05:59	3°♄46'39	9.89618 AU	retrograde	-4476 Sep 25 j 16:55	10°♄54'31	
morning rise	-4482 Mar 16 j 20:59	6°♄06'17		opposition	-4476 Dec 01 j 07:24	7°♄29'29	0°-59'-25
retrograde	-4482 Jul 02 j 20:58	14°♄44'47		min. Earth dist.	-4476 Nov 30 j 18:31	7°♄32'06	8.27635 AU
opposition	-4482 Sep 08 j 06:24	11°♄12'34	-2°-53'-3	direct	-4475 Feb 07 j 17:23	4°♄00'40	
min. Earth dist.	-4482 Sep 07 j 22:19	11°♄14'15	7.87361 AU	evening set	-4475 May 25 j 01:09	12°♄01'11	
direct	-4482 Nov 13 j 00:14	7°♄44'08					
	-4481 Feb 16 j 03:26	15°♄		conjunction	-4475 Jun 12 j 00:22	14°♄15'35	0°-31'-35
evening set	-4481 Feb 24 j 14:36	16°♄05'32		minimum elong	-4475 Jun 12 j 00:23	14°♄15'36	0°31'27
				max. Earth dist.	-4475 Jun 12 j 16:02	14°♄20'30	10.35129 AU
conjunction	-4481 Mar 14 j 12:31	18°♄27'58	-2°-21'-42		-4475 Jun 17 j 21:56	15°♄	
minimum elong	-4481 Mar 14 j 12:31	18°♄27'58	2°21'52	morning rise	-4475 Jun 29 j 19:13	16°♄28'37	
max. Earth dist.	-4481 Mar 15 j 00:28	18°♄31'57	9.85652 AU	retrograde	-4475 Oct 08 j 16:32	24°♄04'43	
morning rise	-4481 Apr 01 j 13:49	20°♄51'26		opposition	-4475 Dec 14 j 15:04	20°♄41'37	0°-19'-21
retrograde	-4481 Jul 18 j 02:20	29°♄30'12		min. Earth dist.	-4475 Dec 14 j 04:39	20°♄43'42	8.42610 AU
opposition	-4481 Sep 23 j 00:43	25°♄58'09	-2°-59'-41	direct	-4474 Feb 21 j 18:36	17°♄13'45	
min. Earth dist.	-4481 Sep 22 j 14:13	26°♄00'21	7.85345 AU	evening set	-4474 Jun 07 j 21:42	25°♄04'13	
direct	-4481 Nov 27 j 20:52	22°♄28'48		asc. node	-4474 Jun 16 j 01:04	26°♄03'46	
	-4480 Mar 04 j 06:42	0°♄					
evening set	-4480 Mar 11 j 06:56	0°♄54'20		conjunction	-4474 Jun 25 j 16:56	27°♄15'15	0°00'51
				minimum elong	-4474 Jun 25 j 16:56	27°♄15'15	0°01'01
conjunction	-4480 Mar 29 j 07:35	3°♄17'28	-2°-22'-18	behind sun begin	-4474 Jun 25 j 09:42	27°♄13'03	
minimum elong	-4480 Mar 29 j 07:37	3°♄17'28	2°22'25	behind sun end	-4474 Jun 26 j 00:10	27°♄17'27	
max. Earth dist.	-4480 Mar 29 j 22:52	3°♄22'33	9.85578 AU	max. Earth dist.	-4474 Jun 26 j 04:30	27°♄18'48	10.50351 AU
				morning rise	-4474 Jul 13 j 07:20	29°♄24'46	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 36

Attention, astronomical year style is used: The year -4474 in astronomical counting style is the year 4475 BCE in historical counting style.

	-4474 Jul 18 j 04:46	0°♊				-4468 Nov 16 j 23:41	15°♏	
retrograde	-4474 Oct 21 j 06:39	6°♊48'35			retrograde	-4468 Dec 28 j 10:18	16°♏23'17	
opposition	-4474 Dec 27 j 14:12	3°♊27'17	0°20'15			-4467 Feb 09 j 03:18	15°♏♌	
min. Earth dist.	-4474 Dec 27 j 06:20	3°♊28'50	8.57829 AU		opposition	-4467 Mar 08 j 08:03	13°♏07'40	2°52'08
direct	-4473 Mar 07 j 10:06	0°♊00'33			min. Earth dist.	-4467 Mar 08 j 16:32	13°♏06'07	9.19321 AU
evening set	-4473 Jun 21 j 05:52	7°♊41'03			direct	-4467 May 19 j 04:43	9°♏47'35	
						-4467 Aug 13 j 12:36	15°♏	
conjunction	-4473 Jul 08 j 20:23	9°♊48'41	0°32'14		evening set	-4467 Aug 29 j 18:57	16°♏47'20	
minimum elong	-4473 Jul 08 j 20:21	9°♊48'41	0°32'26					
max. Earth dist.	-4473 Jul 09 j 03:42	9°♊50'55	10.65353 AU		conjunction	-4467 Sep 15 j 06:46	18°♏41'12	2°24'07
morning rise	-4473 Jul 26 j 05:45	11°♊54'45			minimum elong	-4467 Sep 15 j 06:45	18°♏41'12	2°24'16
retrograde	-4473 Nov 02 j 12:19	19°♊07'53			max. Earth dist.	-4467 Sep 14 j 19:32	18°♏37'57	11.20421 AU
opposition	-4472 Jan 09 j 05:51	15°♊48'15	0°57'33		morning rise	-4467 Oct 01 j 15:41	20°♏34'21	
min. Earth dist.	-4472 Jan 09 j 00:29	15°♊49'18	8.72460 AU		retrograde	-4466 Jan 08 j 19:42	27°♏21'59	
direct	-4472 Mar 19 j 16:06	12°♊22'47			opposition	-4466 Mar 20 j 01:27	24°♏06'12	2°57'06
evening set	-4472 Jul 03 j 02:08	19°♊53'54			min. Earth dist.	-4466 Mar 20 j 12:28	24°♏04'12	9.21257 AU
					direct	-4466 May 30 j 20:29	20°♏46'45	
conjunction	-4472 Jul 20 j 11:34	21°♊58'17	1°01'18		evening set	-4466 Sep 09 j 20:29	27°♏43'57	
minimum elong	-4472 Jul 20 j 11:31	21°♊58'16	1°01'30					
max. Earth dist.	-4472 Jul 20 j 15:34	21°♊59'29	10.79404 AU		conjunction	-4466 Sep 26 j 06:08	29°♏37'18	2°25'33
morning rise	-4472 Aug 06 j 15:38	24°♊01'06			minimum elong	-4466 Sep 26 j 06:08	29°♏37'18	2°25'40
	-4472 Oct 08 j 19:33	0°♊			max. Earth dist.	-4466 Sep 25 j 16:09	29°♏33'15	11.20945 AU
retrograde	-4472 Nov 13 j 11:07	1°♊05'28				-4466 Sep 29 j 12:25	0°♏	
	-4472 Dec 19 j 19:55	30°♏♊			morning rise	-4466 Oct 12 j 13:56	1°♏30'10	
opposition	-4471 Jan 20 j 14:59	27°♊47'17	1°31'07		retrograde	-4465 Jan 20 j 05:06	8°♏19'42	
min. Earth dist.	-4471 Jan 20 j 12:26	27°♊47'46	8.85881 AU		opposition	-4465 Mar 31 j 19:21	5°♏03'27	2°55'39
direct	-4471 Apr 01 j 13:52	24°♊23'05			min. Earth dist.	-4465 Apr 01 j 08:32	5°♏01'03	9.20389 AU
	-4471 Jun 29 j 21:26	0°♊			direct	-4465 Jun 11 j 09:29	1°♏44'28	
evening set	-4471 Jul 15 j 11:54	1°♊45'43			evening set	-4465 Sep 20 j 20:26	8°♏40'31	
conjunction	-4471 Aug 01 j 16:07	3°♊47'07	1°26'59		conjunction	-4465 Oct 07 j 05:03	10°♏33'55	2°21'40
minimum elong	-4471 Aug 01 j 16:04	3°♊47'06	1°27'12		minimum elong	-4465 Oct 07 j 05:05	10°♏33'55	2°21'45
max. Earth dist.	-4471 Aug 01 j 16:51	3°♊47'20	10.91984 AU		max. Earth dist.	-4465 Oct 06 j 13:17	10°♏29'20	11.18700 AU
morning rise	-4471 Aug 18 j 15:02	5°♊47'01			morning rise	-4465 Oct 23 j 12:50	12°♏27'07	
retrograde	-4471 Nov 25 j 04:44	12°♊44'25			retrograde	-4464 Jan 31 j 18:40	19°♏20'17	
opposition	-4470 Feb 01 j 18:32	9°♊27'24	1°59'57		opposition	-4464 Apr 11 j 14:57	16°♏03'15	2°47'49
min. Earth dist.	-4470 Feb 01 j 19:41	9°♊27'11	8.97633 AU		min. Earth dist.	-4464 Apr 12 j 04:56	16°♏00'41	9.16753 AU
direct	-4470 Apr 14 j 01:53	6°♊04'25			direct	-4464 Jun 21 j 23:29	12°♏44'33	
evening set	-4470 Jul 27 j 12:20	13°♊19'35			evening set	-4464 Sep 30 j 20:32	19°♏40'51	
conjunction	-4470 Aug 13 j 11:25	15°♊18'23	1°48'33		conjunction	-4464 Oct 17 j 05:20	21°♏34'55	2°12'31
minimum elong	-4470 Aug 13 j 11:22	15°♊18'22	1°48'46		minimum elong	-4464 Oct 17 j 05:22	21°♏34'56	2°12'34
max. Earth dist.	-4470 Aug 13 j 07:56	15°♊17'21	11.02681 AU		max. Earth dist.	-4464 Oct 16 j 13:33	21°♏30'18	11.13747 AU
morning rise	-4470 Aug 30 j 05:46	17°♊15'49			morning rise	-4464 Nov 02 j 13:59	23°♏29'03	
retrograde	-4470 Dec 06 j 15:36	24°♊08'04				-4463 Jan 18 j 18:34	0°♏	
opposition	-4469 Feb 13 j 17:52	20°♊51'53	2°23'20		retrograde	-4463 Feb 11 j 15:00	0°♏27'27	
min. Earth dist.	-4469 Feb 13 j 22:18	20°♊51'04	9.07322 AU			-4463 Mar 07 j 17:25	30°♏♏	
direct	-4469 Apr 26 j 07:51	17°♊29'59			opposition	-4463 Apr 23 j 13:27	27°♏09'25	2°33'41
evening set	-4469 Aug 08 j 04:38	24°♊38'49			min. Earth dist.	-4463 Apr 24 j 03:23	27°♏06'52	9.10444 AU
					direct	-4463 Jul 03 j 13:07	23°♏50'52	
conjunction	-4469 Aug 24 j 23:05	26°♊35'25	2°05'27			-4463 Oct 04 j 19:35	0°♏	
minimum elong	-4469 Aug 24 j 23:02	26°♊35'25	2°05'40		evening set	-4463 Oct 11 j 22:59	0°♏48'52	
max. Earth dist.	-4469 Aug 24 j 15:53	26°♊33'19	11.11151 AU					
morning rise	-4469 Sep 10 j 13:31	28°♊30'53			conjunction	-4463 Oct 28 j 08:48	2°♏44'10	1°58'16
	-4469 Sep 23 j 21:02	0°♏			minimum elong	-4463 Oct 28 j 08:51	2°♏44'11	1°58'16
retrograde	-4469 Dec 18 j 01:46	5°♏19'52			max. Earth dist.	-4463 Oct 27 j 16:33	2°♏39'23	11.06224 AU
opposition	-4468 Feb 25 j 14:00	2°♏04'08	2°40'50		morning rise	-4463 Nov 13 j 19:20	4°♏39'48	
min. Earth dist.	-4468 Feb 25 j 20:39	2°♏02'55	9.14628 AU		retrograde	-4462 Feb 23 j 15:39	11°♏45'02	
	-4468 Mar 26 j 20:26	30°♏♏			opposition	-4462 May 05 j 16:04	8°♏25'49	2°13'27
direct	-4468 May 07 j 10:01	28°♏43'13			min. Earth dist.	-4462 May 06 j 06:17	8°♏23'11	9.01661 AU
	-4468 Jun 17 j 02:42	0°♏			direct	-4462 Jul 15 j 03:04	5°♏07'10	
evening set	-4468 Aug 18 j 14:18	5°♏46'52			evening set	-4462 Oct 23 j 05:37	12°♏08'25	
conjunction	-4468 Sep 04 j 05:00	7°♏41'50	2°17'23		conjunction	-4462 Nov 08 j 17:11	14°♏05'29	1°39'09
minimum elong	-4468 Sep 04 j 04:58	7°♏41'50	2°17'34		minimum elong	-4462 Nov 08 j 17:14	14°♏05'29	1°39'07
max. Earth dist.	-4468 Sep 03 j 19:39	7°♏39'07	11.17126 AU		max. Earth dist.	-4462 Nov 08 j 00:14	14°♏00'26	10.96382 AU
morning rise	-4468 Sep 20 j 16:12	9°♏35'50			morning rise	-4462 Nov 25 j 06:41	16°♏03'10	



## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 37

Attention, astronomical year style is used: The year -4461 in astronomical counting style is the year 4462 BCE in historical counting style.

retrograde	-4461 Mar 08 j 00:28	23°♄16'48		minimum elong	-4455 Jan 22 j 04:40	29°♄26'31	1°17'10
opposition	-4461 May 18 j 00:14	19°♄56'10	1°47'28	max. Earth dist.	-4455 Jan 22 j 02:35	29°♄25'50	10.14495 AU
min. Earth dist.	-4461 May 18 j 14:33	19°♄53'30	8.90711 AU		-4455 Jan 26 j 11:53	0°♄	
direct	-4461 Jul 26 j 22:21	16°♄37'14		morning rise	-4455 Feb 08 j 19:39	1°♄42'49	
evening set	-4461 Nov 03 j 18:08	23°♄43'13		retrograde	-4455 May 27 j 14:09	10°♄04'22	
				opposition	-4455 Aug 04 j 08:52	6°♄34'29	-1°-53'-57
conjunction	-4461 Nov 20 j 08:24	25°♄42'31	1°15'37	min. Earth dist.	-4455 Aug 04 j 08:42	6°♄34'31	8.08550 AU
minimum elong	-4461 Nov 20 j 08:26	25°♄42'32	1°15'32	direct	-4455 Oct 09 j 17:33	3°♄09'48	
max. Earth dist.	-4461 Nov 19 j 16:22	25°♄37'41	10.84560 AU	evening set	-4454 Jan 19 j 04:53	11°♄09'55	
morning rise	-4461 Dec 07 j 01:33	27°♄42'46					
	-4461 Dec 27 j 04:14	0°♄		conjunction	-4454 Feb 05 j 18:19	13°♄27'19	-1°-43'-53
retrograde	-4460 Mar 19 j 17:31	5°♄06'13		minimum elong	-4454 Feb 05 j 18:16	13°♄27'17	1°44'06
opposition	-4460 May 29 j 14:38	1°♄44'02	1°16'18	max. Earth dist.	-4454 Feb 05 j 20:39	13°♄28'05	10.03105 AU
min. Earth dist.	-4460 May 30 j 03:48	1°♄41'33	8.77991 AU	morning rise	-4454 Feb 23 j 12:51	15°♄46'22	
	-4460 Jun 22 j 19:43	30°♄		retrograde	-4454 Jun 11 j 14:49	24°♄16'49	
direct	-4460 Aug 06 j 22:14	28°♄24'35		opposition	-4454 Aug 18 j 19:42	20°♄45'56	-2°-24'-30
	-4460 Sep 19 j 11:29	0°♄		min. Earth dist.	-4454 Aug 18 j 16:16	20°♄46'39	7.98408 AU
evening set	-4460 Nov 14 j 14:48	5°♄36'50		direct	-4454 Oct 23 j 19:45	17°♄19'54	
				evening set	-4453 Feb 03 j 02:47	25°♄29'48	
conjunction	-4460 Dec 01 j 08:29	7°♄38'50	0°48'16				
minimum elong	-4460 Dec 01 j 08:31	7°♄38'50	0°48'08	conjunction	-4453 Feb 20 j 19:58	27°♄49'37	-2°-5'-1
max. Earth dist.	-4460 Nov 30 j 18:40	7°♄34'36	10.71186 AU	minimum elong	-4453 Feb 20 j 19:55	27°♄49'37	2°05'13
morning rise	-4460 Dec 18 j 05:41	9°♄41'59		max. Earth dist.	-4453 Feb 21 j 02:41	27°♄51'51	9.94203 AU
	-4459 Feb 07 j 06:03	15°♄			-4453 Mar 09 j 07:56	0°♄	
retrograde	-4459 Apr 01 j 20:44	17°♄16'28		morning rise	-4453 Mar 10 j 17:35	0°♄10'56	
	-4459 May 27 j 11:42	15°♄		retrograde	-4453 Jun 26 j 19:51	8°♄47'24	
opposition	-4459 Jun 11 j 11:59	13°♄52'38	0°40'46	opposition	-4453 Sep 02 j 10:57	5°♄15'57	-2°-46'-35
min. Earth dist.	-4459 Jun 11 j 22:51	13°♄50'34	8.63997 AU	min. Earth dist.	-4453 Sep 02 j 04:11	5°♄17'21	7.91061 AU
direct	-4459 Aug 19 j 05:17	10°♄32'29		direct	-4453 Nov 07 j 05:59	1°♄48'39	
	-4459 Nov 01 j 22:38	15°♄		evening set	-4452 Feb 18 j 10:43	10°♄06'47	
evening set	-4459 Nov 26 j 21:26	17°♄52'28					
				conjunction	-4452 Mar 07 j 07:20	12°♄28'28	-2°-18'-31
conjunction	-4459 Dec 13 j 18:52	19°♄57'28	0°18'00	minimum elong	-4452 Mar 07 j 07:19	12°♄28'27	2°18'42
minimum elong	-4459 Dec 13 j 18:53	19°♄57'28	0°17'50	max. Earth dist.	-4452 Mar 07 j 18:02	12°♄32'01	9.88425 AU
max. Earth dist.	-4459 Dec 13 j 07:30	19°♄53'56	10.56807 AU	morning rise	-4452 Mar 25 j 07:29	14°♄51'19	
morning rise	-4459 Dec 30 j 20:28	22°♄03'51			-4452 Mar 26 j 10:09	15°♄	
retrograde	-4458 Apr 15 j 11:35	29°♄50'14		retrograde	-4452 Jul 11 j 02:04	23°♄30'04	
opposition	-4458 Jun 24 j 17:19	26°♄24'44	0°02'06	opposition	-4452 Sep 16 j 04:49	19°♄58'29	-2°-58'-7
min. Earth dist.	-4458 Jun 25 j 01:23	26°♄23'10	8.49338 AU	min. Earth dist.	-4452 Sep 15 j 19:09	20°♄00'30	7.87106 AU
desc. node	-4458 Jul 14 j 17:20	24°♄55'08		direct	-4452 Nov 20 j 23:18	16°♄30'06	
direct	-4458 Aug 31 j 18:01	23°♄03'42		evening set	-4451 Mar 05 j 01:16	24°♄53'50	
	-4458 Dec 05 j 04:54	0°♄					
evening set	-4458 Dec 09 j 15:33	0°♄32'40		conjunction	-4451 Mar 23 j 00:49	27°♄16'38	-2°-23'-6
				minimum elong	-4451 Mar 23 j 00:49	27°♄16'38	2°23'14
conjunction	-4458 Dec 26 j 16:53	2°♄40'50	0°-14'-5	max. Earth dist.	-4451 Mar 23 j 15:00	27°♄21'21	9.86311 AU
minimum elong	-4458 Dec 26 j 16:53	2°♄40'50	0°14'17	morning rise	-4451 Apr 10 j 02:47	29°♄40'12	
behind sun begin	-4458 Dec 26 j 13:28	2°♄39'46			-4451 Apr 12 j 15:42	0°♄	
behind sun end	-4458 Dec 26 j 20:18	2°♄41'54		retrograde	-4451 Jul 26 j 05:30	8°♄16'57	
max. Earth dist.	-4458 Dec 26 j 07:49	2°♄37'59	10.42078 AU	opposition	-4451 Sep 30 j 22:41	4°♄45'41	-2°-57'-54
morning rise	-4457 Jan 12 j 23:08	4°♄50'37		min. Earth dist.	-4451 Sep 30 j 10:52	4°♄48'10	7.86941 AU
retrograde	-4457 Apr 29 j 11:54	12°♄49'19		direct	-4451 Dec 05 j 21:19	1°♄16'25	
opposition	-4457 Jul 08 j 06:51	9°♄22'12	0°-38'-2	evening set	-4450 Mar 20 j 18:22	9°♄42'28	
min. Earth dist.	-4457 Jul 08 j 12:20	9°♄21'07	8.34713 AU				
direct	-4457 Sep 13 j 15:33	6°♄00'05		conjunction	-4450 Apr 07 j 20:15	12°♄05'32	-2°-18'-17
evening set	-4457 Dec 22 j 22:41	13°♄39'06		minimum elong	-4450 Apr 07 j 20:17	12°♄05'32	2°18'22
				max. Earth dist.	-4450 Apr 08 j 13:00	12°♄11'05	9.88109 AU
conjunction	-4456 Jan 09 j 04:04	15°♄50'30	0°-46'-19	morning rise	-4450 Apr 25 j 23:18	14°♄28'54	
minimum elong	-4456 Jan 09 j 04:02	15°♄50'29	0°46'32	retrograde	-4450 Aug 10 j 02:38	22°♄59'26	
max. Earth dist.	-4456 Jan 08 j 22:01	15°♄48'34	10.27724 AU	opposition	-4450 Oct 15 j 13:53	19°♄28'57	-2°-45'-57
morning rise	-4456 Jan 26 j 14:52	18°♄03'39		min. Earth dist.	-4450 Oct 15 j 00:54	19°♄31'40	7.90633 AU
retrograde	-4456 May 12 j 20:55	26°♄14'20		direct	-4450 Dec 20 j 20:53	15°♄59'04	
opposition	-4456 Jul 21 j 04:11	22°♄45'43	-1°-17'-34	evening set	-4449 Apr 05 j 09:44	24°♄23'58	
min. Earth dist.	-4456 Jul 21 j 07:04	22°♄45'09	8.20873 AU				
direct	-4456 Sep 25 j 23:47	19°♄22'22		conjunction	-4449 Apr 23 j 13:08	26°♄46'23	-2°-4'-32
evening set	-4455 Jan 04 j 19:14	27°♄11'59		minimum elong	-4449 Apr 23 j 13:11	26°♄46'24	2°04'34
				max. Earth dist.	-4449 Apr 24 j 07:04	26°♄52'18	9.93703 AU
conjunction	-4455 Jan 22 j 04:43	29°♄26'32	-1°-16'-57	morning rise	-4449 May 11 j 16:22	29°♄08'40	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 38

Attention, astronomical year style is used: The year -4449 in astronomical counting style is the year 4450 BCE in historical counting style.

	-4449 May 18 j 09:10	0°♊		evening set	-4443 Jun 28 j 01:42	14°♊59'39	
retrograde	-4449 Aug 24 j 15:34	7°♊29'27					
min. Earth dist.	-4449 Oct 29 j 10:56	4°♊02'55	7.97911 AU	conjunction	-4443 Jul 15 j 13:26	17°♊05'29	0°49'11
opposition	-4449 Oct 30 j 00:13	4°♊00'08	-2°-23'-30	minimum elong	-4443 Jul 15 j 13:24	17°♊05'28	0°49'23
direct	-4448 Jan 04 j 19:39	0°♊30'00		max. Earth dist.	-4443 Jul 15 j 19:44	17°♊07'23	10.72503 AU
evening set	-4448 Apr 19 j 19:25	8°♊50'30		morning rise	-4443 Aug 01 j 19:52	19°♊09'44	
				retrograde	-4443 Nov 08 j 18:16	26°♊17'34	
conjunction	-4448 May 07 j 23:09	11°♊11'25	-1°-43'-10	opposition	-4442 Jan 15 j 18:53	22°♊58'16	1°17'14
minimum elong	-4448 May 07 j 23:13	11°♊11'27	1°43'09	min. Earth dist.	-4442 Jan 15 j 15:15	22°♊58'58	8.79430 AU
max. Earth dist.	-4448 May 08 j 16:59	11°♊17'14	10.02668 AU	direct	-4442 Mar 27 j 12:56	19°♊32'58	
morning rise	-4448 May 26 j 01:23	13°♊31'45		evening set	-4442 Jul 10 j 15:35	26°♊58'59	
retrograde	-4448 Sep 06 j 18:13	21°♊40'24					
opposition	-4448 Nov 12 j 03:42	18°♊12'33	-1°-52'-39	conjunction	-4442 Jul 27 j 21:59	29°♊01'39	1°16'24
min. Earth dist.	-4448 Nov 11 j 14:28	18°♊15'17	8.08251 AU	minimum elong	-4442 Jul 27 j 21:56	29°♊01'38	1°16'36
direct	-4447 Jan 18 j 14:34	14°♊42'32		max. Earth dist.	-4442 Jul 28 j 00:08	29°♊02'17	10.86114 AU
evening set	-4447 May 04 j 20:11	22°♊56'01			-4442 Aug 05 j 02:03	0°♋	
				morning rise	-4442 Aug 13 j 23:18	1°♋02'47	
conjunction	-4447 May 22 j 23:01	25°♊14'41	-1°-16'-2	retrograde	-4442 Nov 20 j 12:49	8°♋02'41	
minimum elong	-4447 May 22 j 23:04	25°♊14'42	1°15'59	opposition	-4441 Jan 28 j 00:06	4°♋44'45	1°48'09
max. Earth dist.	-4447 May 23 j 15:55	25°♊20'07	10.14364 AU	min. Earth dist.	-4441 Jan 27 j 22:49	4°♋45'00	8.92362 AU
morning rise	-4447 Jun 09 j 23:06	27°♊32'23		direct	-4441 Apr 09 j 05:16	1°♋20'49	
	-4447 Jun 30 j 06:42	0°♋		evening set	-4441 Jul 22 j 19:21	8°♋38'46	
retrograde	-4447 Sep 20 j 09:38	5°♋27'40					
opposition	-4447 Nov 25 j 23:10	2°♋01'29	-1°-16'-6	conjunction	-4441 Aug 08 j 20:38	10°♋38'35	1°39'46
min. Earth dist.	-4447 Nov 25 j 10:22	2°♋04'06	8.20953 AU	minimum elong	-4441 Aug 08 j 20:35	10°♋38'34	1°39'59
	-4447 Dec 22 j 12:02	30°♌♊		max. Earth dist.	-4441 Aug 08 j 19:46	10°♋38'20	10.98132 AU
direct	-4446 Feb 02 j 03:30	28°♌31'56		morning rise	-4441 Aug 25 j 17:01	12°♋36'59	
	-4446 Mar 15 j 11:53	0°♌		retrograde	-4441 Dec 02 j 02:33	19°♋30'52	
evening set	-4446 May 19 j 09:51	6°♌36'35		opposition	-4440 Feb 09 j 00:35	16°♋14'02	2°13'54
				min. Earth dist.	-4440 Feb 09 j 01:38	16°♋13'50	9.03470 AU
conjunction	-4446 Jun 06 j 10:32	8°♌52'25	0°-45'-18	direct	-4440 Apr 20 j 13:44	12°♋51'28	
minimum elong	-4446 Jun 06 j 10:34	8°♌52'25	0°45'11	evening set	-4440 Aug 02 j 14:18	20°♋02'25	
max. Earth dist.	-4446 Jun 07 j 01:57	8°♌57'17	10.28011 AU				
morning rise	-4446 Jun 24 j 07:20	11°♌06'58		conjunction	-4440 Aug 19 j 10:51	21°♋59'50	1°58'42
	-4446 Jul 28 j 03:54	15°♌		minimum elong	-4440 Aug 19 j 10:49	21°♋59'49	1°58'55
retrograde	-4446 Oct 03 j 13:47	18°♌48'47		max. Earth dist.	-4440 Aug 19 j 07:31	21°♋58'51	11.08110 AU
opposition	-4446 Dec 09 j 10:09	15°♌24'22	0°-36'-33	morning rise	-4440 Sep 05 j 02:48	23°♋55'59	
min. Earth dist.	-4446 Dec 08 j 22:28	15°♌26'43	8.35208 AU		-4440 Nov 12 j 07:47	0°♎	
	-4446 Dec 14 j 11:33	15°♌♋		retrograde	-4440 Dec 12 j 14:13	0°♎45'41	
direct	-4445 Feb 16 j 07:52	11°♌55'36			-4439 Jan 12 j 07:58	30°♌♋	
	-4445 Apr 19 j 05:41	15°♌		opposition	-4439 Feb 19 j 21:26	27°♋29'42	2°33'55
evening set	-4445 Jun 02 j 11:31	19°♌50'27		min. Earth dist.	-4439 Feb 20 j 01:42	27°♋28'55	9.12359 AU
				direct	-4439 May 02 j 15:23	24°♋08'22	
conjunction	-4445 Jun 20 j 08:48	22°♌03'03	0°-13'-2		-4439 Aug 03 j 02:32	0°♎	
minimum elong	-4445 Jun 20 j 08:48	22°♌03'03	0°12'53	evening set	-4439 Aug 14 j 02:19	1°♎13'35	
behind sun begin	-4445 Jun 20 j 04:26	22°♌01'43					
behind sun end	-4445 Jun 20 j 13:11	22°♌04'24		conjunction	-4439 Aug 30 j 18:36	3°♎09'05	2°12'47
max. Earth dist.	-4445 Jun 20 j 22:04	22°♌07'10	10.42769 AU	minimum elong	-4439 Aug 30 j 18:34	3°♎09'05	2°12'58
morning rise	-4445 Jul 08 j 01:15	24°♌14'10		max. Earth dist.	-4439 Aug 30 j 11:39	3°♎07'04	11.15710 AU
	-4445 Sep 02 j 01:43	0°♎		morning rise	-4439 Sep 16 j 07:02	5°♎03'32	
retrograde	-4445 Oct 16 j 09:08	1°♎43'13		retrograde	-4439 Dec 23 j 21:08	11°♎50'50	
asc. node	-4445 Nov 19 j 11:00	0°♎42'30		opposition	-4438 Mar 03 j 15:39	8°♎35'22	2°47'52
	-4445 Nov 30 j 16:32	30°♌♋		min. Earth dist.	-4438 Mar 03 j 23:10	8°♎34'00	9.18725 AU
opposition	-4445 Dec 22 j 12:41	28°♌20'37	0°03'29	direct	-4438 May 14 j 11:02	5°♎15'08	
min. Earth dist.	-4445 Dec 22 j 03:09	28°♌22'30	8.50200 AU	evening set	-4438 Aug 25 j 08:46	12°♎15'55	
direct	-4444 Mar 01 j 02:07	24°♌52'51					
	-4444 May 23 j 03:31	0°♎		conjunction	-4438 Sep 10 j 21:33	14°♎10'02	2°21'45
evening set	-4444 Jun 15 j 00:44	2°♎37'39		minimum elong	-4438 Sep 10 j 21:32	14°♎10'01	2°21'55
				max. Earth dist.	-4438 Sep 10 j 11:12	14°♎07'02	11.20688 AU
conjunction	-4444 Jul 02 j 17:34	4°♎46'51	0°19'01		-4438 Sep 18 j 02:15	15°♎	
minimum elong	-4444 Jul 02 j 17:34	4°♎46'51	0°19'12	morning rise	-4438 Sep 27 j 07:26	16°♎03'20	
max. Earth dist.	-4444 Jul 03 j 03:59	4°♎50'02	10.57840 AU	retrograde	-4437 Jan 04 j 05:24	22°♎50'04	
morning rise	-4444 Jul 20 j 05:06	6°♎54'27		opposition	-4437 Mar 15 j 08:47	19°♎34'45	2°55'32
retrograde	-4444 Oct 27 j 18:29	14°♎12'05		min. Earth dist.	-4437 Mar 15 j 18:16	19°♎33'01	9.22356 AU
opposition	-4443 Jan 03 j 07:25	10°♎51'12	0°41'57	direct	-4437 May 26 j 05:21	16°♎15'26	
min. Earth dist.	-4443 Jan 03 j 00:54	10°♎52'28	8.65174 AU	evening set	-4437 Sep 05 j 11:04	23°♎13'02	
direct	-4443 Mar 14 j 11:20	7°♎24'37					

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 39

Attention, astronomical year style is used: The year -4437 in astronomical counting style is the year 4438 BCE in historical counting style.

conjunction	-4437 Sep 21 j 21:29	25° $\Omega$ 06'21	2°25'28	conjunction	-4431 Nov 26 j 10:00	2° $\mathbb{M}$ 35'01	1°00'44
minimum elong	-4437 Sep 21 j 21:29	25° $\Omega$ 06'21	2°25'36	minimum elong	-4431 Nov 26 j 10:02	2° $\mathbb{M}$ 35'02	1°00'37
max. Earth dist.	-4437 Sep 21 j 09:36	25° $\Omega$ 02'55	11.22879 AU	max. Earth dist.	-4431 Nov 25 j 17:14	2° $\mathbb{M}$ 29'56	10.78448 AU
morning rise	-4437 Oct 08 j 05:38	26° $\Omega$ 59'05		morning rise	-4431 Dec 13 j 05:13	4° $\mathbb{M}$ 36'41	
	-4437 Nov 05 j 14:23	0° $\mathbb{M}$		retrograde	-4430 Mar 27 j 10:08	12° $\mathbb{M}$ 05'39	
retrograde	-4436 Jan 15 j 15:38	3° $\mathbb{M}$ 46'57		opposition	-4430 Jun 06 j 03:38	8° $\mathbb{M}$ 42'49	0°56'56
opposition	-4436 Mar 26 j 01:57	0° $\mathbb{M}$ 31'26	2°56'51	min. Earth dist.	-4430 Jun 06 j 16:59	8° $\mathbb{M}$ 40'18	8.71206 AU
min. Earth dist.	-4436 Mar 26 j 12:48	0° $\mathbb{M}$ 29'28	9.23124 AU	direct	-4430 Aug 14 j 02:57	5° $\mathbb{M}$ 23'09	
	-4436 Apr 02 j 07:24	30° $\mathbb{R}$ 02		evening set	-4430 Nov 21 j 19:42	12° $\mathbb{M}$ 39'11	
direct	-4436 Jun 05 j 19:05	27° $\Omega$ 12'51					
	-4436 Aug 05 j 19:13	0° $\mathbb{M}$		conjunction	-4430 Dec 08 j 15:11	14° $\mathbb{M}$ 42'42	0°31'42
evening set	-4436 Sep 15 j 11:14	4° $\mathbb{M}$ 08'35		minimum elong	-4430 Dec 08 j 15:12	14° $\mathbb{M}$ 42'42	0°31'33
				max. Earth dist.	-4430 Dec 08 j 00:03	14° $\mathbb{M}$ 38'02	10.63873 AU
conjunction	-4436 Oct 01 j 20:15	6° $\mathbb{M}$ 01'42	2°23'53		-4430 Dec 10 j 23:19	15° $\mathbb{M}$	
minimum elong	-4436 Oct 01 j 20:17	6° $\mathbb{M}$ 01'42	2°23'59	morning rise	-4430 Dec 25 j 14:50	16° $\mathbb{M}$ 47'31	
max. Earth dist.	-4436 Oct 01 j 06:50	5° $\mathbb{M}$ 57'48	11.22196 AU	retrograde	-4429 Apr 09 j 18:43	24° $\mathbb{M}$ 28'10	
morning rise	-4436 Oct 18 j 03:43	7° $\mathbb{M}$ 54'28		opposition	-4429 Jun 19 j 05:13	21° $\mathbb{M}$ 03'27	0°19'34
retrograde	-4435 Jan 26 j 03:51	14° $\mathbb{M}$ 45'06		min. Earth dist.	-4429 Jun 19 j 16:47	21° $\mathbb{M}$ 01'14	8.56177 AU
opposition	-4435 Apr 06 j 20:12	11° $\mathbb{M}$ 29'05	2°51'47	direct	-4429 Aug 26 j 13:32	17° $\mathbb{M}$ 42'43	
min. Earth dist.	-4435 Apr 07 j 08:58	11° $\mathbb{M}$ 26'46	9.20981 AU	evening set	-4429 Dec 04 j 08:03	25° $\mathbb{M}$ 07'19	
direct	-4435 Jun 17 j 07:11	8° $\mathbb{M}$ 10'57					
evening set	-4435 Sep 26 j 10:57	15° $\mathbb{M}$ 06'16		conjunction	-4429 Dec 21 j 07:36	27° $\mathbb{M}$ 14'01	0°00'20
				minimum elong	-4429 Dec 21 j 07:36	27° $\mathbb{M}$ 14'00	0°00'09
conjunction	-4435 Oct 12 j 19:26	16° $\mathbb{M}$ 59'45	2°17'02	behind sun begin	-4429 Dec 21 j 00:36	27° $\mathbb{M}$ 11'50	
minimum elong	-4435 Oct 12 j 19:28	16° $\mathbb{M}$ 59'46	2°17'06	behind sun end	-4429 Dec 21 j 14:36	27° $\mathbb{M}$ 16'10	
max. Earth dist.	-4435 Oct 12 j 03:27	16° $\mathbb{M}$ 55'06	11.18627 AU	max. Earth dist.	-4429 Dec 20 j 19:44	27° $\mathbb{M}$ 10'18	10.48623 AU
morning rise	-4435 Oct 29 j 03:29	18° $\mathbb{M}$ 53'11		desc. node	-4429 Dec 25 j 02:47	27° $\mathbb{M}$ 42'35	
retrograde	-4434 Feb 06 j 19:56	25° $\mathbb{M}$ 48'14		morning rise	-4428 Jan 07 j 11:47	29° $\mathbb{M}$ 22'14	
opposition	-4434 Apr 18 j 16:59	22° $\mathbb{M}$ 31'23	2°40'24		-4428 Jan 12 j 15:56	0° $\mathbb{Z}$	
min. Earth dist.	-4434 Apr 19 j 07:50	22° $\mathbb{M}$ 28'40	9.15941 AU	retrograde	-4428 Apr 22 j 13:08	7° $\mathbb{Z}$ 15'14	
direct	-4434 Jun 28 j 19:41	19° $\mathbb{M}$ 13'27		opposition	-4428 Jul 01 j 14:44	3° $\mathbb{Z}$ 48'37	0°-20'-4
evening set	-4434 Oct 07 j 11:52	26° $\mathbb{M}$ 09'48		min. Earth dist.	-4428 Jul 01 j 23:21	3° $\mathbb{Z}$ 46'56	8.40852 AU
				direct	-4428 Sep 07 j 08:03	0° $\mathbb{Z}$ 26'40	
conjunction	-4434 Oct 23 j 20:51	28° $\mathbb{M}$ 04'15	2°05'00	evening set	-4428 Dec 16 j 08:55	8° $\mathbb{Z}$ 01'04	
minimum elong	-4434 Oct 23 j 20:54	28° $\mathbb{M}$ 04'16	2°05'02				
max. Earth dist.	-4434 Oct 23 j 03:29	27° $\mathbb{M}$ 59'09	11.12216 AU	conjunction	-4427 Jan 02 j 12:37	10° $\mathbb{Z}$ 11'04	0°-32'00
morning rise	-4434 Nov 09 j 06:27	29° $\mathbb{M}$ 58'56		minimum elong	-4427 Jan 02 j 12:35	10° $\mathbb{Z}$ 11'03	0°32'13
	-4434 Nov 09 j 10:11	0° $\mathbb{Z}$		max. Earth dist.	-4427 Jan 02 j 04:30	10° $\mathbb{Z}$ 08'29	10.33405 AU
retrograde	-4433 Feb 18 j 16:25	7° $\mathbb{Z}$ 00'10		morning rise	-4427 Jan 19 j 21:15	12° $\mathbb{Z}$ 22'44	
opposition	-4433 Apr 30 j 17:22	3° $\mathbb{Z}$ 42'09	2°22'51	retrograde	-4427 May 06 j 18:04	20° $\mathbb{Z}$ 28'12	
min. Earth dist.	-4433 May 01 j 08:50	3° $\mathbb{Z}$ 39'19	9.08104 AU	opposition	-4427 Jul 15 j 08:15	16° $\mathbb{Z}$ 59'47	-1°00'-8
direct	-4433 Jul 10 j 09:50	0° $\mathbb{Z}$ 24'11		min. Earth dist.	-4427 Jul 15 j 13:06	16° $\mathbb{Z}$ 58'50	8.25978 AU
evening set	-4433 Oct 18 j 16:01	7° $\mathbb{Z}$ 23'09		direct	-4427 Sep 20 j 11:25	13° $\mathbb{Z}$ 36'32	
max. Earth dist.	-4433 Nov 03 j 09:26	9° $\mathbb{Z}$ 14'03	11.03132 AU	evening set	-4427 Dec 29 j 23:09	21° $\mathbb{Z}$ 21'33	
conjunction	-4433 Nov 04 j 02:39	9° $\mathbb{Z}$ 19'09	1°48'01	conjunction	-4426 Jan 16 j 06:54	23° $\mathbb{Z}$ 34'50	-1°-3'-34
minimum elong	-4433 Nov 04 j 02:42	9° $\mathbb{Z}$ 19'10	1°48'00	minimum elong	-4426 Jan 16 j 06:51	23° $\mathbb{Z}$ 34'49	1°03'48
morning rise	-4433 Nov 20 j 14:37	11° $\mathbb{Z}$ 15'38		max. Earth dist.	-4426 Jan 16 j 02:30	23° $\mathbb{Z}$ 33'25	10.19008 AU
retrograde	-4432 Mar 01 j 22:58	18° $\mathbb{Z}$ 24'42		morning rise	-4426 Feb 02 j 19:52	25° $\mathbb{Z}$ 49'51	
opposition	-4432 May 11 j 22:31	15° $\mathbb{Z}$ 05'18	1°59'25		-4426 Mar 10 j 10:53	0° $\mathbb{Z}$	
min. Earth dist.	-4432 May 12 j 13:27	15° $\mathbb{Z}$ 02'32	8.97739 AU	retrograde	-4426 May 21 j 09:07	4° $\mathbb{Z}$ 07'07	
direct	-4432 Jul 21 j 03:53	11° $\mathbb{Z}$ 47'02		opposition	-4426 Jul 29 j 09:47	0° $\mathbb{Z}$ 37'10	-1°-38'-16
evening set	-4432 Oct 29 j 01:25	18° $\mathbb{Z}$ 50'09		min. Earth dist.	-4426 Jul 29 j 11:01	0° $\mathbb{Z}$ 36'55	8.12359 AU
					-4426 Aug 06 j 03:08	30° $\mathbb{R}$ 07	
conjunction	-4432 Nov 14 j 14:27	20° $\mathbb{Z}$ 48'14	1°26'26	direct	-4426 Oct 03 j 23:19	27° $\mathbb{Z}$ 12'30	
minimum elong	-4432 Nov 14 j 14:30	20° $\mathbb{Z}$ 48'15	1°26'22		-4426 Nov 28 j 23:55	0° $\mathbb{Z}$	
max. Earth dist.	-4432 Nov 13 j 21:33	20° $\mathbb{Z}$ 43'10	10.91720 AU	evening set	-4425 Jan 13 j 02:56	5° $\mathbb{Z}$ 08'25	
morning rise	-4432 Dec 01 j 05:40	22° $\mathbb{Z}$ 47'06					
	-4431 Mar 03 j 23:07	0° $\mathbb{M}$		conjunction	-4425 Jan 30 j 14:39	7° $\mathbb{Z}$ 24'47	-1°-32'-26
retrograde	-4431 Mar 14 j 12:29	0° $\mathbb{M}$ 05'27		minimum elong	-4425 Jan 30 j 14:35	7° $\mathbb{Z}$ 24'45	1°32'39
	-4431 Mar 25 j 01:57	30° $\mathbb{R}$ 02		max. Earth dist.	-4425 Jan 30 j 14:11	7° $\mathbb{Z}$ 24'38	10.06248 AU
opposition	-4431 May 24 j 09:39	26° $\mathbb{Z}$ 44'25	1°30'33	morning rise	-4425 Feb 17 j 07:38	9° $\mathbb{Z}$ 42'51	
min. Earth dist.	-4431 May 24 j 23:47	26° $\mathbb{Z}$ 41'46	8.85264 AU	retrograde	-4425 Jun 05 j 08:13	18° $\mathbb{Z}$ 10'19	
direct	-4431 Aug 01 j 23:47	23° $\mathbb{Z}$ 25'35		opposition	-4425 Aug 12 j 18:18	14° $\mathbb{Z}$ 39'10	-2°-11'-49
	-4431 Nov 04 j 21:17	0° $\mathbb{M}$		min. Earth dist.	-4425 Aug 12 j 16:15	14° $\mathbb{Z}$ 39'35	8.00793 AU
evening set	-4431 Nov 09 j 18:03	0° $\mathbb{M}$ 34'25		direct	-4425 Oct 17 j 21:05	11° $\mathbb{Z}$ 13'04	
				evening set	-4424 Jan 27 j 19:54	19° $\mathbb{Z}$ 19'28	

Attention, astronomical year style is used: The year -4424 in astronomical counting style is the year 4425 BCE in historical counting style.

conjunction	-4424 Feb 14 j 11:23	21°☾38'30	-1°-56'-26	opposition	-4419 Nov 06 j 09:08	12°♊14'06	-2°-7'-6
minimum elong	-4424 Feb 14 j 11:20	21°☾38'29	1°56'38	min. Earth dist.	-4419 Nov 05 j 17:59	12°♊17'15	8.02831 AU
max. Earth dist.	-4424 Feb 14 j 15:02	21°☾39'42	9.95908 AU	direct	-4418 Jan 12 j 11:59	8°♊44'03	
morning rise	-4424 Mar 03 j 07:52	23°☾59'08		evening set	-4418 Apr 28 j 15:58	17°♊01'17	
	-4424 Apr 25 j 16:01	0°☾					
retrograde	-4424 Jun 19 j 11:45	2°☾34'07		conjunction	-4418 May 16 j 19:33	19°♊21'08	-1°-28'-31
	-4424 Aug 14 j 13:19	30°☾		minimum elong	-4418 May 16 j 19:37	19°♊21'09	1°28'28
opposition	-4424 Aug 26 j 08:11	29°☾02'11	-2°-38'-1	max. Earth dist.	-4418 May 17 j 15:33	19°♊27'36	10.08591 AU
min. Earth dist.	-4424 Aug 26 j 03:08	29°☾03'14	7.92014 AU	morning rise	-4418 Jun 03 j 20:41	21°♊40'10	
direct	-4424 Oct 31 j 04:55	25°☾34'45		retrograde	-4418 Sep 14 j 22:19	29°♊41'55	
	-4423 Jan 10 j 14:10	0°☾		opposition	-4418 Nov 20 j 08:39	26°♊15'06	-1°-32'-38
evening set	-4423 Feb 10 j 23:57	3°☾50'15		min. Earth dist.	-4418 Nov 19 j 18:34	26°♊18'00	8.14972 AU
				direct	-4417 Jan 27 j 03:32	22°♊45'34	
conjunction	-4423 Feb 28 j 19:00	6°☾11'25	-2°-13'-34		-4417 May 06 j 02:21	0°♊	
minimum elong	-4423 Feb 28 j 18:58	6°☾11'24	2°13'45	evening set	-4417 May 13 j 11:33	0°♊54'40	
max. Earth dist.	-4423 Mar 01 j 03:05	6°☾14'06	9.88687 AU				
morning rise	-4423 Mar 18 j 18:19	8°☾33'56		conjunction	-4417 May 31 j 13:24	3°♊11'52	0°-59'-2
	-4423 May 15 j 10:24	15°☾		minimum elong	-4417 May 31 j 13:26	3°♊11'53	0°58'57
retrograde	-4423 Jul 04 j 17:17	17°☾12'54		max. Earth dist.	-4417 Jun 01 j 07:23	3°♊17'35	10.21874 AU
	-4423 Aug 24 j 20:04	15°☾		morning rise	-4417 Jun 18 j 11:44	5°♊27'55	
opposition	-4423 Sep 10 j 01:39	13°☾40'39	-2°-54'-29	retrograde	-4417 Sep 28 j 08:04	13°♊16'00	
min. Earth dist.	-4423 Sep 09 j 17:36	13°☾42'20	7.86625 AU	min. Earth dist.	-4417 Dec 03 j 11:35	9°♊53'40	8.29048 AU
direct	-4423 Nov 14 j 20:34	10°☾12'04		opposition	-4417 Dec 04 j 00:02	9°♊51'09	0°-53'-59
	-4422 Jan 28 j 14:09	15°☾		direct	-4416 Feb 10 j 12:12	6°♊22'25	
evening set	-4422 Feb 26 j 12:02	18°☾34'19		evening set	-4416 May 26 j 19:15	14°♊21'57	
					-4416 May 31 j 22:38	15°♊	
conjunction	-4422 Mar 16 j 10:19	20°☾56'55	-2°-22'-14				
minimum elong	-4422 Mar 16 j 10:18	20°☾56'55	2°22'23	conjunction	-4416 Jun 13 j 18:02	16°♊36'01	0°-27'-8
max. Earth dist.	-4422 Mar 16 j 22:52	21°☾01'06	9.85115 AU	minimum elong	-4416 Jun 13 j 18:03	16°♊36'02	0°27'00
morning rise	-4422 Apr 03 j 11:48	23°☾20'30		max. Earth dist.	-4416 Jun 14 j 09:00	16°♊40'42	10.36644 AU
	-4422 Jun 02 j 16:54	0°♊		morning rise	-4416 Jul 01 j 12:33	18°♊48'42	
retrograde	-4422 Jul 19 j 21:39	1°♊59'19		retrograde	-4416 Oct 10 j 07:27	26°♊23'29	
	-4422 Sep 05 j 18:36	30°☾		opposition	-4416 Dec 16 j 06:47	23°♊00'35	0°-13'-50
opposition	-4422 Sep 24 j 20:11	28°☾27'15	-2°-59'-34	min. Earth dist.	-4416 Dec 15 j 20:12	23°♊02'41	8.44209 AU
min. Earth dist.	-4422 Sep 24 j 09:13	28°☾29'33	7.85022 AU	direct	-4415 Feb 23 j 11:53	19°♊32'52	
direct	-4422 Nov 29 j 17:28	24°☾57'47		asc. node	-4415 Apr 26 j 11:17	22°♊35'17	
	-4421 Feb 14 j 18:59	0°♊		evening set	-4415 Jun 09 j 14:26	27°♊22'14	
evening set	-4421 Mar 14 j 04:42	3°♊23'44					
				conjunction	-4415 Jun 27 j 09:11	29°♊32'55	0°05'18
conjunction	-4421 Apr 01 j 05:45	5°♊46'58	-2°-21'-35	minimum elong	-4415 Jun 27 j 09:11	29°♊32'55	0°05'28
minimum elong	-4421 Apr 01 j 05:47	5°♊46'59	2°21'41	behind sun begin	-4415 Jun 27 j 02:13	29°♊30'47	
max. Earth dist.	-4421 Apr 01 j 21:58	5°♊52'22	9.85471 AU	behind sun end	-4415 Jun 27 j 16:08	29°♊35'02	
morning rise	-4421 Apr 19 j 08:39	8°♊10'45		max. Earth dist.	-4415 Jun 27 j 20:40	29°♊36'26	10.52034 AU
retrograde	-4421 Aug 03 j 21:44	16°♊45'04			-4415 Jul 01 j 01:03	0°♊	
opposition	-4421 Oct 09 j 13:00	13°♊13'42	-2°-52'-42	morning rise	-4415 Jul 14 j 23:06	1°♊42'03	
min. Earth dist.	-4421 Oct 08 j 23:44	13°♊16'30	7.87332 AU	retrograde	-4415 Oct 22 j 20:11	9°♊04'36	
direct	-4421 Dec 14 j 16:20	9°♊43'40		opposition	-4415 Dec 29 j 05:01	5°♊43'30	0°25'34
evening set	-4420 Mar 28 j 21:37	18°♊09'56		min. Earth dist.	-4415 Dec 28 j 20:24	5°♊45'12	8.59587 AU
				direct	-4414 Mar 09 j 02:44	2°♊16'57	
conjunction	-4420 Apr 16 j 00:38	20°♊32'55	-2°-11'-39	evening set	-4414 Jun 22 j 21:10	9°♊56'15	
minimum elong	-4420 Apr 16 j 00:42	20°♊32'56	2°11'43				
max. Earth dist.	-4420 Apr 16 j 19:26	20°♊39'08	9.89744 AU	conjunction	-4414 Jul 10 j 11:13	12°♊03'30	0°36'24
morning rise	-4420 May 04 j 04:01	22°♊55'57		minimum elong	-4414 Jul 10 j 11:11	12°♊03'29	0°36'36
	-4420 Jul 10 j 02:26	0°♊		max. Earth dist.	-4414 Jul 10 j 19:20	12°♊05'57	10.67181 AU
retrograde	-4420 Aug 17 j 15:47	1°♊21'57		morning rise	-4414 Jul 27 j 19:58	14°♊09'09	
	-4420 Sep 25 j 13:31	30°☾		retrograde	-4414 Nov 04 j 00:52	21°♊21'05	
min. Earth dist.	-4420 Oct 22 j 11:15	27°♊54'51	7.93407 AU	opposition	-4413 Jan 10 j 19:45	18°♊01'38	1°02'24
opposition	-4420 Oct 23 j 02:03	27°♊51'46	-2°-34'-37	min. Earth dist.	-4413 Jan 10 j 14:04	18°♊02'44	8.74336 AU
direct	-4420 Dec 28 j 15:25	24°♊21'32		direct	-4413 Mar 22 j 08:06	14°♊36'20	
	-4419 Mar 22 j 04:39	0°♊		evening set	-4413 Jul 05 j 16:10	22°♊06'12	
evening set	-4419 Apr 13 j 10:26	2°♊44'43					
				conjunction	-4413 Jul 23 j 01:02	24°♊10'10	1°05'02
conjunction	-4419 May 01 j 14:22	5°♊06'33	-1°-53'-25	minimum elong	-4413 Jul 23 j 01:00	24°♊10'09	1°05'14
minimum elong	-4419 May 01 j 14:26	5°♊06'34	1°53'25	max. Earth dist.	-4413 Jul 23 j 05:36	24°♊11'32	10.81300 AU
max. Earth dist.	-4419 May 02 j 10:35	5°♊13'10	9.97634 AU	morning rise	-4413 Aug 09 j 04:26	26°♊12'34	
morning rise	-4419 May 19 j 17:10	7°♊27'58			-4413 Sep 13 j 09:24	0°♊	
retrograde	-4419 Sep 01 j 00:40	15°♊42'45		retrograde	-4413 Nov 15 j 23:49	3°♊15'46	

## Planetary Phenomena of Saturn from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 41

Attention, astronomical year style is used: The year -4412 in astronomical counting style is the year 4413 BCE in historical counting style.

	-4412 Jan 22 j 16:19	30° $\text{R}\text{II}$		opposition	-4406 Apr 02 j 05:13	7° $\text{M}$ 03'55	2°54'48
opposition	-4412 Jan 23 j 04:01	29° $\text{II}$ 57'46	1°35'20	min. Earth dist.	-4406 Apr 02 j 18:33	7° $\text{M}$ 01'29	9.20790 AU
min. Earth dist.	-4412 Jan 23 j 02:01	29° $\text{II}$ 58'09	8.87776 AU	direct	-4406 Jun 12 j 19:58	3° $\text{M}$ 45'01	
direct	-4412 Apr 03 j 02:45	26° $\text{II}$ 33'45		evening set	-4406 Sep 22 j 04:26	10° $\text{M}$ 40'42	
	-4412 Jun 10 j 03:02	0° $\text{S}$					
evening set	-4412 Jul 17 j 00:39	3° $\text{S}$ 55'10		conjunction	-4406 Oct 08 j 13:07	12° $\text{M}$ 34'04	2°20'38
				minimum elong	-4406 Oct 08 j 13:08	12° $\text{M}$ 34'05	2°20'42
conjunction	-4412 Aug 03 j 04:11	5° $\text{S}$ 56'10	1°30'10	max. Earth dist.	-4406 Oct 07 j 21:38	12° $\text{M}$ 29'34	11.18923 AU
minimum elong	-4412 Aug 03 j 04:08	5° $\text{S}$ 56'09	1°30'22	morning rise	-4406 Oct 24 j 20:52	14° $\text{M}$ 27'15	
max. Earth dist.	-4412 Aug 03 j 04:23	5° $\text{S}$ 56'14	10.93835 AU	retrograde	-4405 Feb 02 j 04:58	21° $\text{M}$ 20'31	
morning rise	-4412 Aug 20 j 02:34	7° $\text{S}$ 55'42		opposition	-4405 Apr 14 j 00:45	18° $\text{M}$ 03'27	2°46'08
retrograde	-4412 Nov 26 j 14:16	14° $\text{S}$ 52'05		min. Earth dist.	-4405 Apr 14 j 14:27	18° $\text{M}$ 00'57	9.16786 AU
opposition	-4411 Feb 03 j 06:51	11° $\text{S}$ 35'15	2°03'25	direct	-4405 Jun 24 j 09:04	14° $\text{M}$ 44'50	
min. Earth dist.	-4411 Feb 03 j 08:30	11° $\text{S}$ 34'56	8.99437 AU	evening set	-4405 Oct 03 j 04:26	21° $\text{M}$ 40'54	
direct	-4411 Apr 15 j 15:08	8° $\text{S}$ 12'26					
evening set	-4411 Jul 28 j 23:44	15° $\text{S}$ 26'29		conjunction	-4405 Oct 19 j 13:19	23° $\text{M}$ 35'01	2°10'49
				minimum elong	-4405 Oct 19 j 13:22	23° $\text{M}$ 35'01	2°10'51
conjunction	-4411 Aug 14 j 22:12	17° $\text{S}$ 24'54	1°51'05	max. Earth dist.	-4405 Oct 18 j 21:22	23° $\text{M}$ 30'21	11.13605 AU
minimum elong	-4411 Aug 14 j 22:10	17° $\text{S}$ 24'53	1°51'18	morning rise	-4405 Nov 04 j 22:04	25° $\text{M}$ 29'12	
max. Earth dist.	-4411 Aug 14 j 17:58	17° $\text{S}$ 23'39	11.04394 AU		-4405 Dec 19 j 10:14	0° $\text{S}$	
morning rise	-4411 Aug 31 j 16:09	19° $\text{S}$ 22'00		retrograde	-4404 Feb 14 j 00:07	2° $\text{S}$ 27'54	
retrograde	-4411 Dec 08 j 01:56	26° $\text{S}$ 13'29			-4404 Apr 13 j 10:48	30° $\text{R}$ $\text{M}$	
opposition	-4410 Feb 15 j 05:21	22° $\text{S}$ 57'25	2°25'59	opposition	-4404 Apr 24 j 23:26	29° $\text{M}$ 09'47	2°31'13
min. Earth dist.	-4410 Feb 15 j 09:35	22° $\text{S}$ 56'38	9.08944 AU	min. Earth dist.	-4404 Apr 25 j 13:48	29° $\text{M}$ 07'09	9.10118 AU
direct	-4410 Apr 27 j 21:43	19° $\text{S}$ 35'43		direct	-4404 Jul 04 j 21:14	25° $\text{M}$ 51'15	
evening set	-4410 Aug 09 j 14:59	26° $\text{S}$ 43'33			-4404 Sep 17 j 10:09	0° $\text{S}$	
				evening set	-4404 Oct 13 j 07:02	2° $\text{S}$ 49'14	
conjunction	-4410 Aug 26 j 09:01	28° $\text{S}$ 39'51	2°07'18				
minimum elong	-4410 Aug 26 j 08:59	28° $\text{S}$ 39'51	2°07'30	conjunction	-4404 Oct 29 j 16:54	4° $\text{S}$ 44'38	1°55'56
max. Earth dist.	-4410 Aug 26 j 01:58	28° $\text{S}$ 37'48	11.12647 AU	minimum elong	-4404 Oct 29 j 16:57	4° $\text{S}$ 44'39	1°55'56
	-4410 Sep 06 j 20:53	0° $\text{Q}$		max. Earth dist.	-4404 Oct 28 j 23:41	4° $\text{S}$ 39'33	11.05738 AU
morning rise	-4410 Sep 11 j 23:00	0° $\text{Q}$ 35'01		morning rise	-4404 Nov 15 j 03:48	6° $\text{S}$ 40'24	
retrograde	-4410 Dec 19 j 11:29	7° $\text{Q}$ 23'22		retrograde	-4403 Feb 25 j 01:55	13° $\text{S}$ 46'06	
opposition	-4409 Feb 27 j 00:48	4° $\text{Q}$ 07'46	2°42'36	opposition	-4403 May 07 j 02:15	10° $\text{S}$ 26'46	2°10'15
min. Earth dist.	-4409 Feb 27 j 07:13	4° $\text{Q}$ 06'35	9.15996 AU	min. Earth dist.	-4403 May 07 j 17:21	10° $\text{S}$ 23'59	9.01000 AU
direct	-4409 May 09 j 20:37	0° $\text{Q}$ 47'03		direct	-4403 Jul 16 j 12:37	7° $\text{S}$ 08'05	
evening set	-4409 Aug 20 j 23:50	7° $\text{Q}$ 49'50		evening set	-4403 Oct 24 j 13:53	14° $\text{S}$ 09'32	
				max. Earth dist.	-4403 Nov 09 j 08:20	16° $\text{S}$ 01'34	10.95571 AU
conjunction	-4409 Sep 06 j 14:13	9° $\text{Q}$ 44'34	2°18'30				
minimum elong	-4409 Sep 06 j 14:11	9° $\text{Q}$ 44'34	2°18'41	conjunction	-4403 Nov 10 j 01:42	16° $\text{S}$ 06'45	1°36'16
max. Earth dist.	-4409 Sep 06 j 05:01	9° $\text{Q}$ 41'54	11.18346 AU	minimum elong	-4403 Nov 10 j 01:45	16° $\text{S}$ 06'46	1°36'13
morning rise	-4409 Sep 23 j 01:00	11° $\text{Q}$ 38'21		morning rise	-4403 Nov 26 j 15:36	18° $\text{S}$ 04'39	
	-4409 Oct 24 j 23:00	15° $\text{Q}$		retrograde	-4402 Mar 09 j 10:06	25° $\text{S}$ 18'56	
retrograde	-4409 Dec 30 j 20:09	18° $\text{Q}$ 25'21		opposition	-4402 May 19 j 10:38	21° $\text{S}$ 58'10	1°43'38
opposition	-4408 Mar 09 j 18:35	15° $\text{Q}$ 09'52	2°53'01	min. Earth dist.	-4402 May 20 j 01:21	21° $\text{S}$ 55'25	8.89734 AU
min. Earth dist.	-4408 Mar 10 j 03:37	15° $\text{Q}$ 08'12	9.20391 AU	direct	-4402 Jul 28 j 07:41	18° $\text{S}$ 39'09	
	-4408 Mar 12 j 00:22	15° $\text{R}$ $\text{Q}$		evening set	-4402 Nov 05 j 02:51	25° $\text{S}$ 45'33	
direct	-4408 May 20 j 15:21	11° $\text{Q}$ 49'56					
	-4408 Jul 25 j 05:36	15° $\text{Q}$		conjunction	-4402 Nov 21 j 17:31	27° $\text{S}$ 45'05	1°12'15
evening set	-4408 Aug 31 j 03:49	18° $\text{Q}$ 48'59		minimum elong	-4402 Nov 21 j 17:34	27° $\text{S}$ 45'06	1°12'10
				max. Earth dist.	-4402 Nov 21 j 01:56	27° $\text{S}$ 40'23	10.83441 AU
conjunction	-4408 Sep 16 j 15:17	20° $\text{Q}$ 42'40	2°24'30	morning rise	-4402 Dec 08 j 10:57	29° $\text{S}$ 45'33	
minimum elong	-4408 Sep 16 j 15:16	20° $\text{Q}$ 42'40	2°24'39		-4402 Dec 10 j 11:56	0° $\text{M}$	
max. Earth dist.	-4408 Sep 16 j 03:10	20° $\text{Q}$ 39'10	11.21331 AU	retrograde	-4401 Mar 22 j 04:42	7° $\text{M}$ 09'56	
morning rise	-4408 Oct 03 j 00:04	22° $\text{Q}$ 35'40		opposition	-4401 Jun 01 j 01:30	3° $\text{M}$ 47'33	1°11'55
retrograde	-4407 Jan 10 j 04:20	29° $\text{Q}$ 23'02		min. Earth dist.	-4401 Jun 01 j 14:17	3° $\text{M}$ 45'08	8.76729 AU
opposition	-4407 Mar 21 j 11:43	26° $\text{Q}$ 07'20	2°57'06	direct	-4401 Aug 09 j 08:55	0° $\text{M}$ 28'00	
min. Earth dist.	-4407 Mar 21 j 23:34	26° $\text{Q}$ 05'10	9.22005 AU	evening set	-4401 Nov 17 j 00:17	7° $\text{M}$ 40'53	
direct	-4407 Jun 01 j 06:07	22° $\text{Q}$ 48'01					
evening set	-4407 Sep 11 j 04:52	29° $\text{Q}$ 44'40		conjunction	-4401 Dec 03 j 18:20	9° $\text{M}$ 43'09	0°44'32
	-4407 Sep 13 j 10:49	0° $\text{M}$		minimum elong	-4401 Dec 03 j 18:22	9° $\text{M}$ 43'10	0°44'24
				max. Earth dist.	-4401 Dec 03 j 04:32	9° $\text{M}$ 38'56	10.69803 AU
conjunction	-4407 Sep 27 j 14:19	1° $\text{M}$ 37'54	2°25'13	morning rise	-4401 Dec 20 j 15:54	11° $\text{M}$ 46'37	
minimum elong	-4407 Sep 27 j 14:20	1° $\text{M}$ 37'54	2°25'19		-4400 Jan 18 j 04:40	15° $\text{M}$	
max. Earth dist.	-4407 Sep 26 j 23:37	1° $\text{M}$ 33'38	11.21524 AU	retrograde	-4400 Apr 03 j 10:41	19° $\text{M}$ 22'11	
morning rise	-4407 Oct 13 j 22:09	3° $\text{M}$ 30'42		opposition	-4400 Jun 12 j 23:35	15° $\text{M}$ 58'09	0°36'00
retrograde	-4406 Jan 21 j 13:50	10° $\text{M}$ 20'10		min. Earth dist.	-4400 Jun 13 j 10:11	15° $\text{M}$ 56'07	8.62501 AU

	-4400 Jun 25 j 20:31	15° $\mathbb{R}$ $\mathbb{M}$	
direct	-4400 Aug 20 j 14:35	12° $\mathbb{M}$ 37'53	
	-4400 Oct 12 j 15:19	15° $\mathbb{M}$	
evening set	-4400 Nov 28 j 07:57	19° $\mathbb{M}$ 58'42	
conjunction	-4400 Dec 15 j 05:42	22° $\mathbb{M}$ 04'01	0°14'01
minimum elong	-4400 Dec 15 j 05:42	22° $\mathbb{M}$ 04'01	0°13'52
behind sun begin	-4400 Dec 15 j 01:56	22° $\mathbb{M}$ 02'51	
behind sun end	-4400 Dec 15 j 09:28	22° $\mathbb{M}$ 05'10	
max. Earth dist.	-4400 Dec 14 j 17:32	22° $\mathbb{M}$ 00'14	10.55223 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 1

Attention, astronomical year style is used: The year -4400 in astronomical counting style is the year 4401 BCE in historical counting style.

	-4400 Jan 18 j 04:40	15°♄				-4394 Feb 21 j 04:57	0°≈	
retrograde	-4400 Apr 03 j 10:41	19°♄22'11						
opposition	-4400 Jun 12 j 23:35	15°♄58'09	0°36'00	conjunction	-4394 Feb 22 j 14:04	0°≈10'58	-2°-7'-4	
min. Earth dist.	-4400 Jun 13 j 10:11	15°♄56'07	8.62501 AU	minimum elong	-4394 Feb 22 j 14:01	0°≈10'58	2°07'16	
	-4400 Jun 25 j 20:31	15°♄		max. Earth dist.	-4394 Feb 22 j 21:37	0°≈13'29	9.93157 AU	
direct	-4400 Aug 20 j 14:35	12°♄37'53		morning rise	-4394 Mar 12 j 11:53	2°≈32'30		
	-4400 Oct 12 j 15:19	15°♄		retrograde	-4394 Jun 28 j 14:12	11°≈09'37		
evening set	-4400 Nov 28 j 07:57	19°♄58'42		opposition	-4394 Sep 04 j 03:41	7°≈38'05	-2°-48'-31	
				min. Earth dist.	-4394 Sep 03 j 20:12	7°≈39'39	7.90239 AU	
conjunction	-4400 Dec 15 j 05:42	22°♄04'01	0°14'01	direct	-4394 Nov 08 j 22:26	4°≈10'40		
minimum elong	-4400 Dec 15 j 05:42	22°♄04'01	0°13'52	evening set	-4393 Feb 20 j 05:27	12°≈29'39		
behind sun begin	-4400 Dec 15 j 01:56	22°♄02'51						
behind sun end	-4400 Dec 15 j 09:28	22°♄05'10		conjunction	-4393 Mar 10 j 02:18	14°≈51'32	-2°-19'-30	
max. Earth dist.	-4400 Dec 14 j 17:32	22°♄00'14	10.55223 AU	minimum elong	-4393 Mar 10 j 02:17	14°≈51'31	2°19'40	
morning rise	-4399 Jan 01 j 07:49	24°♄10'45		max. Earth dist.	-4393 Mar 10 j 13:13	14°≈55'10	9.87806 AU	
	-4399 Feb 26 j 13:40	0°♂			-4393 Mar 11 j 03:45	15°≈		
retrograde	-4399 Apr 17 j 00:55	1°♂58'22		morning rise	-4393 Mar 28 j 02:40	17°≈14'32		
desc. node	-4399 May 29 j 21:40	0°♂31'34		retrograde	-4393 Jul 13 j 20:16	25°≈53'29		
	-4399 Jun 06 j 19:33	30°♄		opposition	-4393 Sep 18 j 21:55	22°≈21'54	-2°-58'-36	
opposition	-4399 Jun 26 j 05:43	28°♄32'41	0°-2'-52	min. Earth dist.	-4393 Sep 18 j 12:11	22°≈23'56	7.86691 AU	
min. Earth dist.	-4399 Jun 26 j 14:10	28°♄31'02	8.47674 AU	direct	-4393 Nov 23 j 16:15	18°≈53'23		
direct	-4399 Sep 02 j 04:09	25°♄11'28		evening set	-4392 Mar 06 j 20:44	27°≈17'43		
	-4399 Nov 18 j 07:46	0°♂						
evening set	-4399 Dec 11 j 03:19	2°♂41'34		conjunction	-4392 Mar 24 j 20:28	29°≈40'38	-2°-22'-53	
				minimum elong	-4392 Mar 24 j 20:29	29°≈40'38	2°23'01	
conjunction	-4399 Dec 28 j 04:58	4°♂50'05	0°-18'-7	max. Earth dist.	-4392 Mar 25 j 10:17	29°≈45'14	9.86088 AU	
minimum elong	-4399 Dec 28 j 04:57	4°♂50'04	0°18'19		-4392 Mar 27 j 06:38	0°♂		
max. Earth dist.	-4399 Dec 27 j 19:17	4°♂47'01	10.40364 AU	morning rise	-4392 Apr 11 j 22:41	2°♂04'17		
morning rise	-4398 Jan 14 j 11:44	7°♂00'13		retrograde	-4392 Jul 27 j 23:24	10°♂40'48		
retrograde	-4398 May 01 j 01:13	15°♂00'17		opposition	-4392 Oct 02 j 15:52	7°♂09'37	-2°-56'-52	
opposition	-4398 Jul 09 j 20:08	11°♂32'59	0°-43'-1	min. Earth dist.	-4392 Oct 02 j 04:27	7°♂12'01	7.86903 AU	
min. Earth dist.	-4398 Jul 10 j 02:11	11°♂31'47	8.32966 AU	direct	-4392 Dec 07 j 14:24	3°♂40'16		
direct	-4398 Sep 15 j 04:17	8°♂10'41		evening set	-4391 Mar 22 j 14:05	12°♂06'37		
evening set	-4398 Dec 24 j 11:46	15°♂50'59						
				conjunction	-4391 Apr 09 j 16:08	14°♂29'43	-2°-16'-53	
conjunction	-4397 Jan 10 j 17:34	18°♂02'46	0°-50'-14	minimum elong	-4391 Apr 09 j 16:11	14°♂29'44	2°16'58	
minimum elong	-4397 Jan 10 j 17:32	18°♂02'45	0°50'27	max. Earth dist.	-4391 Apr 10 j 08:18	14°♂35'05	9.88256 AU	
max. Earth dist.	-4397 Jan 10 j 11:50	18°♂00'56	10.25972 AU	morning rise	-4391 Apr 27 j 19:23	16°♂53'06		
morning rise	-4397 Jan 28 j 04:46	20°♂16'17		retrograde	-4391 Aug 11 j 20:38	25°♂23'03		
retrograde	-4397 May 15 j 11:49	28°♂28'25		opposition	-4391 Oct 17 j 07:04	21°♂52'42	-2°-43'-29	
opposition	-4397 Jul 23 j 18:29	24°♂59'38	-1°-22'-16	min. Earth dist.	-4391 Oct 16 j 18:22	21°♂55'22	7.90953 AU	
min. Earth dist.	-4397 Jul 23 j 21:21	24°♂59'04	8.19153 AU	direct	-4391 Dec 22 j 14:49	18°♂22'47		
direct	-4397 Sep 28 j 13:12	21°♂36'07		evening set	-4390 Apr 07 j 05:12	26°♂47'39		
evening set	-4396 Jan 07 j 09:51	29°♂27'07						
	-4396 Jan 11 j 16:44	0°♂		conjunction	-4390 Apr 25 j 08:43	29°♂10'02	-2°-2'-3	
				minimum elong	-4390 Apr 25 j 08:47	29°♂10'04	2°02'05	
conjunction	-4396 Jan 24 j 19:49	1°♂42'02	-1°-20'-29	max. Earth dist.	-4390 Apr 26 j 02:17	29°♂15'49	9.94202 AU	
minimum elong	-4396 Jan 24 j 19:45	1°♂42'01	1°20'43		-4390 May 01 j 16:41	0°♀		
max. Earth dist.	-4396 Jan 24 j 18:42	1°♂41'40	10.12827 AU	morning rise	-4390 May 13 j 12:03	1°♀32'15		
morning rise	-4396 Feb 11 j 11:03	3°♂58'42		retrograde	-4390 Aug 26 j 08:47	9°♀52'12		
retrograde	-4396 May 29 j 07:25	12°♂21'39		opposition	-4390 Oct 31 j 17:06	6°♀23'02	-2°-19'-47	
opposition	-4396 Aug 06 j 00:07	8°♂51'36	-1°-58'-3	min. Earth dist.	-4390 Oct 31 j 03:40	6°♀25'50	7.98566 AU	
min. Earth dist.	-4396 Aug 05 j 23:14	8°♂51'47	8.06992 AU	direct	-4389 Jan 06 j 14:23	2°♀52'56		
direct	-4396 Oct 11 j 07:16	5°♂26'46		evening set	-4389 Apr 22 j 14:28	11°♀13'06		
evening set	-4395 Jan 20 j 21:16	13°♂28'18						
				conjunction	-4389 May 10 j 18:18	13°♀33'54	-1°-39'-48	
conjunction	-4395 Feb 07 j 11:07	15°♂46'01	-1°-46'-48	minimum elong	-4389 May 10 j 18:22	13°♀33'56	1°39'46	
minimum elong	-4395 Feb 07 j 11:03	15°♂46'00	1°47'01	max. Earth dist.	-4389 May 11 j 12:07	13°♀39'42	10.03488 AU	
max. Earth dist.	-4395 Feb 07 j 14:36	15°♂47'10	10.01673 AU	morning rise	-4389 May 28 j 20:29	15°♀54'05		
morning rise	-4395 Feb 25 j 05:52	18°♂05'23		retrograde	-4389 Sep 09 j 09:55	24°♀01'41		
retrograde	-4395 Jun 13 j 09:03	26°♂36'57		opposition	-4389 Nov 14 j 20:02	20°♀34'02	-1°-48'-1	
opposition	-4395 Aug 20 j 11:44	23°♂05'58	-2°-27'-40	min. Earth dist.	-4389 Nov 14 j 06:16	20°♀36'52	8.09203 AU	
min. Earth dist.	-4395 Aug 20 j 07:15	23°♂06'53	7.97168 AU	direct	-4388 Jan 21 j 09:13	17°♀04'06		
direct	-4395 Oct 25 j 11:02	19°♂39'47		evening set	-4388 May 06 j 14:35	25°♀17'01		
evening set	-4394 Feb 04 j 20:35	27°♂50'53						

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 2

Attention, astronomical year style is used: The year -4388 in astronomical counting style is the year 4389 BCE in historical counting style.

conjunction	-4388 May 24 j 17:25	27° $\Upsilon$ 35'29	-1°-12'-3	min. Earth dist.	-4382 Jan 29 j 10:43	6° $\ominus$ 53'12	8.93874 AU
minimum elong	-4388 May 24 j 17:28	27° $\Upsilon$ 35'30	1°11'59	direct	-4382 Apr 10 j 18:42	3° $\ominus$ 29'07	
max. Earth dist.	-4388 May 25 j 10:49	27° $\Upsilon$ 41'03	10.15459 AU	evening set	-4382 Jul 24 j 07:05	10° $\ominus$ 46'04	
morning rise	-4388 Jun 11 j 17:13	29° $\Upsilon$ 52'56					
	-4388 Jun 12 j 15:47	0° $\mathcal{R}$		conjunction	-4382 Aug 10 j 07:54	12° $\ominus$ 45'34	1°42'36
retrograde	-4388 Sep 22 j 00:40	7° $\mathcal{R}$ 47'06		minimum elong	-4382 Aug 10 j 07:51	12° $\ominus$ 45'33	1°42'48
opposition	-4388 Nov 27 j 15:02	4° $\mathcal{R}$ 21'07	-1°-10'-52	max. Earth dist.	-4382 Aug 10 j 07:35	12° $\ominus$ 45'28	10.99584 AU
min. Earth dist.	-4388 Nov 27 j 01:44	4° $\mathcal{R}$ 23'50	8.22150 AU	morning rise	-4382 Aug 27 j 03:41	14° $\ominus$ 43'39	
direct	-4387 Feb 03 j 20:50	0° $\mathcal{R}$ 51'43		retrograde	-4382 Dec 03 j 13:48	21° $\ominus$ 36'47	
evening set	-4387 May 21 j 03:19	8° $\mathcal{R}$ 55'34		opposition	-4381 Feb 10 j 12:11	18° $\ominus$ 20'04	2°16'56
				min. Earth dist.	-4381 Feb 10 j 13:41	18° $\ominus$ 19'47	9.04864 AU
conjunction	-4387 Jun 08 j 03:48	11° $\mathcal{R}$ 11'08	0°-40'-58	direct	-4381 Apr 23 j 02:02	14° $\ominus$ 57'37	
minimum elong	-4387 Jun 08 j 03:50	11° $\mathcal{R}$ 11'09	0°40'51	evening set	-4381 Aug 05 j 01:05	22° $\ominus$ 07'39	
max. Earth dist.	-4387 Jun 08 j 19:57	11° $\mathcal{R}$ 16'14	10.29321 AU				
morning rise	-4387 Jun 26 j 00:08	13° $\mathcal{R}$ 25'23		conjunction	-4381 Aug 21 j 21:04	24° $\ominus$ 04'47	2°00'52
	-4387 Jul 09 j 01:17	15° $\mathcal{R}$		minimum elong	-4381 Aug 21 j 21:01	24° $\ominus$ 04'46	2°01'04
retrograde	-4387 Oct 05 j 05:43	21° $\mathcal{R}$ 06'03		max. Earth dist.	-4381 Aug 21 j 17:17	24° $\ominus$ 03'40	11.09419 AU
opposition	-4387 Dec 11 j 01:26	17° $\mathcal{R}$ 41'52	0°-31'-5	morning rise	-4381 Sep 07 j 12:35	26° $\ominus$ 00'39	
min. Earth dist.	-4387 Dec 10 j 13:49	17° $\mathcal{R}$ 44'12	8.36598 AU		-4381 Oct 16 j 02:03	0° $\mathcal{R}$	
	-4386 Jan 18 j 17:05	15° $\mathcal{R}$		retrograde	-4381 Dec 14 j 22:50	2° $\mathcal{R}$ 49'43	
direct	-4386 Feb 17 j 23:06	14° $\mathcal{R}$ 13'14			-4380 Feb 16 j 10:30	30° $\mathcal{R}$	
	-4386 Mar 20 j 05:34	15° $\mathcal{R}$		opposition	-4380 Feb 22 j 08:27	29° $\ominus$ 33'49	2°36'06
evening set	-4386 Jun 04 j 03:58	22° $\mathcal{R}$ 07'10		min. Earth dist.	-4380 Feb 22 j 13:20	29° $\ominus$ 32'54	9.13594 AU
				direct	-4380 May 04 j 01:58	26° $\ominus$ 12'36	
conjunction	-4386 Jun 22 j 00:51	24° $\mathcal{R}$ 19'28	0°-8'-37		-4380 Jul 15 j 11:50	0° $\mathcal{R}$	
minimum elong	-4386 Jun 22 j 00:51	24° $\mathcal{R}$ 19'28	0°08'29	evening set	-4380 Aug 15 j 12:06	3° $\mathcal{R}$ 16'58	
behind sun begin	-4386 Jun 21 j 18:32	24° $\mathcal{R}$ 17'32					
behind sun end	-4386 Jun 22 j 07:10	24° $\mathcal{R}$ 21'25		conjunction	-4380 Sep 01 j 03:52	5° $\mathcal{R}$ 12'13	2°14'14
max. Earth dist.	-4386 Jun 22 j 14:21	24° $\mathcal{R}$ 23'39	10.44237 AU	minimum elong	-4380 Sep 01 j 03:50	5° $\mathcal{R}$ 12'12	2°14'25
morning rise	-4386 Jul 09 j 16:49	26° $\mathcal{R}$ 30'15		max. Earth dist.	-4380 Aug 31 j 20:14	5° $\mathcal{R}$ 10'00	11.16847 AU
	-4386 Aug 09 j 11:07	0° $\mathcal{R}$		morning rise	-4380 Sep 17 j 16:03	7° $\mathcal{R}$ 06'26	
asc. node	-4386 Sep 30 j 14:47	3° $\mathcal{R}$ 41'47		retrograde	-4380 Dec 25 j 06:20	13° $\mathcal{R}$ 53'17	
retrograde	-4386 Oct 17 j 22:59	3° $\mathcal{R}$ 58'09		opposition	-4379 Mar 05 j 02:06	10° $\mathcal{R}$ 37'50	2°49'10
opposition	-4386 Dec 24 j 03:14	0° $\mathcal{R}$ 35'46	0°08'53	min. Earth dist.	-4379 Mar 05 j 09:27	10° $\mathcal{R}$ 36'29	9.19771 AU
min. Earth dist.	-4386 Dec 23 j 18:18	0° $\mathcal{R}$ 37'32	8.51723 AU	direct	-4379 May 15 j 23:18	7° $\mathcal{R}$ 17'41	
	-4386 Dec 31 j 16:52	30° $\mathcal{R}$		evening set	-4379 Aug 26 j 17:33	14° $\mathcal{R}$ 17'43	
direct	-4385 Mar 03 j 17:45	27° $\mathcal{R}$ 08'09			-4379 Sep 01 j 21:58	15° $\mathcal{R}$	
	-4385 May 03 j 02:11	0° $\mathcal{R}$		conjunction	-4379 Sep 12 j 06:07	16° $\mathcal{R}$ 11'38	2°22'28
evening set	-4385 Jun 17 j 16:07	4° $\mathcal{R}$ 52'00		minimum elong	-4379 Sep 12 j 06:05	16° $\mathcal{R}$ 11'38	2°22'38
conjunction	-4385 Jul 05 j 08:22	7° $\mathcal{R}$ 00'51	0°23'17	max. Earth dist.	-4379 Sep 11 j 20:07	16° $\mathcal{R}$ 08'45	11.21622 AU
minimum elong	-4385 Jul 05 j 08:21	7° $\mathcal{R}$ 00'51	0°23'27	morning rise	-4379 Sep 28 j 15:44	18° $\mathcal{R}$ 04'46	
max. Earth dist.	-4385 Jul 05 j 18:09	7° $\mathcal{R}$ 03'50	10.59400 AU	retrograde	-4378 Jan 05 j 14:50	24° $\mathcal{R}$ 51'08	
morning rise	-4385 Jul 22 j 19:27	9° $\mathcal{R}$ 08'07		opposition	-4378 Mar 16 j 18:41	21° $\mathcal{R}$ 35'49	2°55'57
retrograde	-4385 Oct 30 j 06:11	16° $\mathcal{R}$ 24'39		min. Earth dist.	-4378 Mar 17 j 03:38	21° $\mathcal{R}$ 34'11	9.23176 AU
opposition	-4384 Jan 05 j 21:12	13° $\mathcal{R}$ 03'59	0°47'00	direct	-4378 May 27 j 15:14	18° $\mathcal{R}$ 16'37	
min. Earth dist.	-4384 Jan 05 j 15:00	13° $\mathcal{R}$ 05'11	8.66758 AU	evening set	-4378 Sep 06 j 19:13	25° $\mathcal{R}$ 13'33	
direct	-4384 Mar 16 j 03:33	9° $\mathcal{R}$ 37'33					
evening set	-4384 Jun 29 j 15:53	17° $\mathcal{R}$ 11'36		conjunction	-4378 Sep 23 j 05:30	27° $\mathcal{R}$ 06'44	2°25'28
				minimum elong	-4378 Sep 23 j 05:30	27° $\mathcal{R}$ 06'44	2°25'35
conjunction	-4384 Jul 17 j 02:59	19° $\mathcal{R}$ 17'04	0°53'07	max. Earth dist.	-4378 Sep 22 j 17:59	27° $\mathcal{R}$ 03'24	11.23578 AU
minimum elong	-4384 Jul 17 j 02:57	19° $\mathcal{R}$ 17'03	0°53'18	morning rise	-4378 Oct 09 j 13:26	28° $\mathcal{R}$ 59'21	
max. Earth dist.	-4384 Jul 17 j 08:37	19° $\mathcal{R}$ 18'45	10.74087 AU		-4378 Oct 18 j 14:58	0° $\mathcal{R}$	
morning rise	-4384 Aug 03 j 08:55	21° $\mathcal{R}$ 20'57		retrograde	-4377 Jan 17 j 00:11	5° $\mathcal{R}$ 47'00	
retrograde	-4384 Nov 10 j 06:24	28° $\mathcal{R}$ 27'50		opposition	-4377 Mar 28 j 11:30	2° $\mathcal{R}$ 31'29	2°56'23
opposition	-4383 Jan 17 j 07:55	25° $\mathcal{R}$ 08'41	1°21'45	min. Earth dist.	-4377 Mar 28 j 22:37	2° $\mathcal{R}$ 29'27	9.23701 AU
min. Earth dist.	-4383 Jan 17 j 03:53	25° $\mathcal{R}$ 09'28	8.81008 AU		-4377 May 07 j 00:21	30° $\mathcal{R}$	
direct	-4383 Mar 29 j 03:27	21° $\mathcal{R}$ 43'34		direct	-4377 Jun 08 j 03:54	29° $\mathcal{R}$ 12'59	
evening set	-4383 Jul 12 j 04:28	29° $\mathcal{R}$ 08'33			-4377 Jul 09 j 18:48	0° $\mathcal{R}$	
	-4383 Jul 19 j 11:47	0° $\mathcal{R}$		evening set	-4377 Sep 17 j 18:56	6° $\mathcal{R}$ 08'12	
conjunction	-4383 Jul 29 j 10:21	1° $\mathcal{R}$ 10'52	1°19'50	conjunction	-4377 Oct 04 j 03:46	8° $\mathcal{R}$ 01'13	2°23'10
minimum elong	-4383 Jul 29 j 10:18	1° $\mathcal{R}$ 10'51	1°20'01	minimum elong	-4377 Oct 04 j 03:48	8° $\mathcal{R}$ 01'14	2°23'16
max. Earth dist.	-4383 Jul 29 j 12:49	1° $\mathcal{R}$ 11'36	10.87662 AU	max. Earth dist.	-4377 Oct 03 j 13:42	7° $\mathcal{R}$ 57'09	11.22659 AU
morning rise	-4383 Aug 15 j 11:06	3° $\mathcal{R}$ 11'39		morning rise	-4377 Oct 20 j 11:17	9° $\mathcal{R}$ 53'56	
retrograde	-4383 Nov 21 j 23:44	10° $\mathcal{R}$ 10'43		retrograde	-4376 Jan 28 j 12:22	16° $\mathcal{R}$ 44'29	
opposition	-4382 Jan 29 j 12:22	6° $\mathcal{R}$ 52'53	1°51'59	opposition	-4376 Apr 08 j 05:40	13° $\mathcal{R}$ 28'27	2°50'28



## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 3

Attention, astronomical year style is used: The year -4376 in astronomical counting style is the year 4377 BCE in historical counting style.

min. Earth dist.	-4376 Apr 08 j 19:03	13° $\overline{\text{M}}$ 26'01	9.21329 AU	desc. node	-4370 Nov 10 j 22:53	24° $\overline{\text{M}}$ 16'58	
direct	-4376 Jun 18 j 15:56	10° $\overline{\text{M}}$ 10'24		evening set	-4370 Dec 05 j 17:15	27° $\overline{\text{M}}$ 09'56	
evening set	-4376 Sep 27 j 18:12	17° $\overline{\text{M}}$ 05'17					
max. Earth dist.	-4376 Oct 13 j 10:26	18° $\overline{\text{M}}$ 54'01	11.18874 AU	conjunction	-4370 Dec 22 j 17:10	29° $\overline{\text{M}}$ 16'51	0°-3'-35
				minimum elong	-4370 Dec 22 j 17:10	29° $\overline{\text{M}}$ 16'51	0°03'46
conjunction	-4376 Oct 14 j 02:39	18° $\overline{\text{M}}$ 58'44	2°15'38	behind sun begin	-4370 Dec 22 j 10:08	29° $\overline{\text{M}}$ 14'41	
minimum elong	-4376 Oct 14 j 02:41	18° $\overline{\text{M}}$ 58'45	2°15'41	behind sun end	-4370 Dec 23 j 00:12	29° $\overline{\text{M}}$ 19'02	
morning rise	-4376 Oct 30 j 10:53	20° $\overline{\text{M}}$ 52'10		max. Earth dist.	-4370 Dec 22 j 05:37	29° $\overline{\text{M}}$ 13'15	10.47644 AU
retrograde	-4375 Feb 08 j 03:10	27° $\overline{\text{M}}$ 47'17			-4370 Dec 28 j 10:49	0° $\overline{\text{Z}}$	
opposition	-4375 Apr 20 j 02:13	24° $\overline{\text{M}}$ 30'22	2°38'18	morning rise	-4369 Jan 08 j 21:38	1° $\overline{\text{Z}}$ 25'18	
min. Earth dist.	-4375 Apr 20 j 16:58	24° $\overline{\text{M}}$ 27'41	9.16084 AU	retrograde	-4369 Apr 25 j 00:51	9° $\overline{\text{Z}}$ 19'16	
direct	-4375 Jun 30 j 04:34	21° $\overline{\text{M}}$ 12'29		opposition	-4369 Jul 04 j 01:23	5° $\overline{\text{Z}}$ 52'33	0°-24'-50
evening set	-4375 Oct 08 j 18:58	28° $\overline{\text{M}}$ 08'33		min. Earth dist.	-4369 Jul 04 j 09:29	5° $\overline{\text{Z}}$ 50'57	8.39800 AU
max. Earth dist.	-4375 Oct 24 j 11:30	29° $\overline{\text{M}}$ 58'08	11.12269 AU	direct	-4369 Sep 09 j 17:47	2° $\overline{\text{Z}}$ 30'34	
	-4375 Oct 24 j 17:53	0° $\overline{\text{Z}}$		evening set	-4369 Dec 18 j 19:14	10° $\overline{\text{Z}}$ 05'46	
conjunction	-4375 Oct 25 j 04:09	0° $\overline{\text{Z}}$ 03'01	2°02'59	conjunction	-4368 Jan 04 j 23:13	12° $\overline{\text{Z}}$ 16'02	0°-35'-48
minimum elong	-4375 Oct 25 j 04:12	0° $\overline{\text{Z}}$ 03'02	2°02'59	minimum elong	-4368 Jan 04 j 23:11	12° $\overline{\text{Z}}$ 16'01	0°36'00
morning rise	-4375 Nov 10 j 13:52	1° $\overline{\text{Z}}$ 57'43		max. Earth dist.	-4368 Jan 04 j 14:42	12° $\overline{\text{Z}}$ 13'19	10.32297 AU
retrograde	-4374 Feb 20 j 02:30	8° $\overline{\text{Z}}$ 59'06		morning rise	-4368 Jan 22 j 08:14	14° $\overline{\text{Z}}$ 27'58	
opposition	-4374 May 02 j 02:22	5° $\overline{\text{Z}}$ 41'01	2°20'02	retrograde	-4368 May 08 j 07:39	22° $\overline{\text{Z}}$ 34'27	
min. Earth dist.	-4374 May 02 j 17:12	5° $\overline{\text{Z}}$ 38'18	9.08057 AU	opposition	-4368 Jul 16 j 19:38	19° $\overline{\text{Z}}$ 05'59	-1°-4'-43
direct	-4374 Jul 11 j 19:35	2° $\overline{\text{Z}}$ 23'05		min. Earth dist.	-4368 Jul 17 j 00:28	19° $\overline{\text{Z}}$ 05'01	8.24833 AU
evening set	-4374 Oct 19 j 23:08	9° $\overline{\text{Z}}$ 21'50		direct	-4368 Sep 21 j 20:42	15° $\overline{\text{Z}}$ 42'38	
				evening set	-4368 Dec 31 j 10:45	23° $\overline{\text{Z}}$ 28'39	
conjunction	-4374 Nov 05 j 09:58	11° $\overline{\text{Z}}$ 17'54	1°45'26	conjunction	-4367 Jan 17 j 18:44	25° $\overline{\text{Z}}$ 42'12	-1°-7'-6
minimum elong	-4374 Nov 05 j 10:01	11° $\overline{\text{Z}}$ 17'55	1°45'24	minimum elong	-4367 Jan 17 j 18:42	25° $\overline{\text{Z}}$ 42'11	1°07'19
max. Earth dist.	-4374 Nov 04 j 16:56	11° $\overline{\text{Z}}$ 12'51	11.02992 AU	max. Earth dist.	-4367 Jan 17 j 13:31	25° $\overline{\text{Z}}$ 40'30	10.17843 AU
morning rise	-4374 Nov 21 j 22:06	13° $\overline{\text{Z}}$ 14'29		morning rise	-4367 Feb 04 j 08:08	27° $\overline{\text{Z}}$ 57'31	
retrograde	-4373 Mar 04 j 07:51	20° $\overline{\text{Z}}$ 23'46			-4367 Feb 20 j 22:05	0° $\overline{\text{Z}}$	
opposition	-4373 May 14 j 07:39	17° $\overline{\text{Z}}$ 04'17	1°55'57	retrograde	-4367 May 22 j 23:36	6° $\overline{\text{Z}}$ 15'49	
min. Earth dist.	-4373 May 14 j 22:29	17° $\overline{\text{Z}}$ 01'33	8.97487 AU	opposition	-4367 Jul 30 j 21:56	2° $\overline{\text{Z}}$ 45'49	-1°-42'-24
direct	-4373 Jul 23 j 10:39	13° $\overline{\text{Z}}$ 46'03		min. Earth dist.	-4367 Jul 30 j 23:42	2° $\overline{\text{Z}}$ 45'27	8.11196 AU
evening set	-4373 Oct 31 j 08:43	20° $\overline{\text{Z}}$ 49'08			-4367 Sep 08 j 19:53	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
conjunction	-4373 Nov 16 j 21:53	22° $\overline{\text{Z}}$ 47'18	1°23'21	direct	-4367 Oct 05 j 09:46	29° $\overline{\text{Z}}$ 21'02	
minimum elong	-4373 Nov 16 j 21:56	22° $\overline{\text{Z}}$ 47'19	1°23'17		-4367 Oct 31 j 17:38	0° $\overline{\text{Z}}$	
max. Earth dist.	-4373 Nov 16 j 04:10	22° $\overline{\text{Z}}$ 42'00	10.91370 AU	evening set	-4366 Jan 14 j 15:47	7° $\overline{\text{Z}}$ 18'05	
morning rise	-4373 Dec 03 j 13:30	24° $\overline{\text{Z}}$ 46'18		conjunction	-4366 Feb 01 j 03:44	9° $\overline{\text{Z}}$ 34'42	-1°-35'-27
	-4372 Jan 24 j 06:53	0° $\overline{\text{M}}$		minimum elong	-4366 Feb 01 j 03:41	9° $\overline{\text{Z}}$ 34'40	1°35'40
retrograde	-4372 Mar 15 j 21:08	2° $\overline{\text{M}}$ 05'03		max. Earth dist.	-4366 Feb 01 j 02:46	9° $\overline{\text{Z}}$ 34'23	10.05104 AU
	-4372 May 08 j 09:34	30° $\overline{\text{R}}$ $\overline{\text{Z}}$		morning rise	-4366 Feb 18 j 21:05	11° $\overline{\text{Z}}$ 53'03	
opposition	-4372 May 25 j 19:02	28° $\overline{\text{Z}}$ 43'57	1°26'31	retrograde	-4366 Jun 06 j 22:18	20° $\overline{\text{Z}}$ 21'29	
min. Earth dist.	-4372 May 26 j 09:52	28° $\overline{\text{Z}}$ 41'11	8.84794 AU	opposition	-4366 Aug 14 j 07:14	16° $\overline{\text{Z}}$ 50'18	-2°-15'-12
direct	-4372 Aug 03 j 08:21	25° $\overline{\text{Z}}$ 25'07		min. Earth dist.	-4366 Aug 14 j 05:42	16° $\overline{\text{Z}}$ 50'36	7.99699 AU
	-4372 Oct 19 j 09:59	0° $\overline{\text{M}}$		direct	-4366 Oct 19 j 10:04	13° $\overline{\text{Z}}$ 24'04	
evening set	-4372 Nov 11 j 01:48	2° $\overline{\text{M}}$ 34'07		evening set	-4365 Jan 29 j 09:55	21° $\overline{\text{Z}}$ 31'37	
conjunction	-4372 Nov 27 j 18:00	4° $\overline{\text{M}}$ 34'53	0°57'16	conjunction	-4365 Feb 16 j 01:45	23° $\overline{\text{Z}}$ 50'54	-1°-58'-44
minimum elong	-4372 Nov 27 j 18:02	4° $\overline{\text{M}}$ 34'53	0°57'09	minimum elong	-4365 Feb 16 j 01:41	23° $\overline{\text{Z}}$ 50'53	1°58'56
max. Earth dist.	-4372 Nov 27 j 00:49	4° $\overline{\text{M}}$ 29'39	10.77877 AU	max. Earth dist.	-4365 Feb 16 j 05:32	23° $\overline{\text{Z}}$ 52'10	9.94876 AU
morning rise	-4372 Dec 14 j 13:39	6° $\overline{\text{M}}$ 36'44		morning rise	-4365 Mar 05 j 22:30	26° $\overline{\text{Z}}$ 11'47	
retrograde	-4371 Mar 28 j 20:06	14° $\overline{\text{M}}$ 06'15			-4365 Apr 06 j 03:58	0° $\overline{\text{Z}}$	
opposition	-4371 Jun 07 j 13:12	10° $\overline{\text{M}}$ 43'22	0°52'29	retrograde	-4365 Jun 22 j 01:31	4° $\overline{\text{Z}}$ 47'36	
min. Earth dist.	-4371 Jun 08 j 03:05	10° $\overline{\text{M}}$ 40'44	8.70518 AU	opposition	-4365 Aug 28 j 21:46	1° $\overline{\text{Z}}$ 15'37	-2°-40'-22
direct	-4371 Aug 15 j 11:53	7° $\overline{\text{M}}$ 23'41		min. Earth dist.	-4365 Aug 28 j 16:51	1° $\overline{\text{Z}}$ 16'39	7.91074 AU
evening set	-4371 Nov 23 j 04:02	14° $\overline{\text{M}}$ 40'06			-4365 Sep 13 j 10:54	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
	-4371 Nov 25 j 21:48	15° $\overline{\text{M}}$		direct	-4365 Nov 02 j 18:48	27° $\overline{\text{Z}}$ 48'04	
conjunction	-4371 Dec 09 j 23:57	16° $\overline{\text{M}}$ 43'49	0°27'58		-4365 Dec 21 j 14:53	0° $\overline{\text{Z}}$	
minimum elong	-4371 Dec 09 j 23:58	16° $\overline{\text{M}}$ 43'49	0°27'49	evening set	-4364 Feb 13 j 15:08	6° $\overline{\text{Z}}$ 04'36	
max. Earth dist.	-4371 Dec 09 j 09:11	16° $\overline{\text{M}}$ 39'16	10.63083 AU	conjunction	-4364 Mar 02 j 10:35	8° $\overline{\text{Z}}$ 26'01	-2°-14'-56
morning rise	-4371 Dec 26 j 23:54	18° $\overline{\text{M}}$ 48'51		minimum elong	-4364 Mar 02 j 10:33	8° $\overline{\text{Z}}$ 26'00	2°15'07
retrograde	-4370 Apr 11 j 04:47	26° $\overline{\text{M}}$ 30'16		max. Earth dist.	-4364 Mar 02 j 19:18	8° $\overline{\text{Z}}$ 28'55	9.87845 AU
opposition	-4370 Jun 20 j 15:13	23° $\overline{\text{M}}$ 05'28	0°14'52	morning rise	-4364 Mar 20 j 10:05	10° $\overline{\text{Z}}$ 48'43	
min. Earth dist.	-4370 Jun 21 j 02:36	23° $\overline{\text{M}}$ 03'16	8.55285 AU		-4364 Apr 23 j 21:04	15° $\overline{\text{Z}}$	
direct	-4370 Aug 27 j 22:41	19° $\overline{\text{M}}$ 44'43					

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 4

Attention, astronomical year style is used: The year -4364 in astronomical counting style is the year 4365 BCE in historical counting style.

retrograde	-4364 Jul 06 j 07:35	19° <del>28</del> '15		conjunction	-4358 Jun 02 j 04:21	5° <del>8</del> 25'33	0°-55'-5
opposition	-4364 Sep 11 j 15:41	15° <del>55</del> '58	-2°-55'-34	minimum elong	-4358 Jun 02 j 04:24	5° <del>8</del> 25'34	0°54'59
min. Earth dist.	-4364 Sep 11 j 07:18	15° <del>55</del> '744	7.85906 AU	max. Earth dist.	-4358 Jun 02 j 21:39	5° <del>8</del> 31'03	10.22715 AU
	-4364 Sep 22 j 22:34	15° <del>R</del>		morning rise	-4358 Jun 20 j 02:33	7° <del>8</del> 41'24	
direct	-4364 Nov 16 j 10:29	12° <del>27</del> '17			-4358 Sep 07 j 04:25	15° <del>8</del>	
	-4363 Jan 08 j 05:44	15° <del></del>		retrograde	-4358 Sep 29 j 20:30	15° <del>8</del> 28'29	
evening set	-4363 Feb 28 j 04:09	20° <del>50</del> '22			-4358 Oct 22 j 15:26	15° <del>R</del> 8	
				opposition	-4358 Dec 05 j 12:59	12° <del>8</del> 03'45	0°-48'-55
conjunction	-4363 Mar 18 j 02:48	23° <del>13</del> '10	-2°-22'-32	min. Earth dist.	-4358 Dec 05 j 00:19	12° <del>8</del> 06'18	8.29989 AU
minimum elong	-4363 Mar 18 j 02:48	23° <del>13</del> '10	2°22'41	direct	-4357 Feb 12 j 02:26	8° <del>8</del> 35'02	
max. Earth dist.	-4363 Mar 18 j 16:13	23° <del>17</del> '39	9.84521 AU		-4357 May 16 j 08:35	15° <del>8</del>	
morning rise	-4363 Apr 05 j 04:22	25° <del>36</del> '53		evening set	-4357 May 29 j 09:34	16° <del>8</del> 33'54	
	-4363 May 11 j 08:49	0° <del>X</del>					
retrograde	-4363 Jul 21 j 12:45	4° <del>X</del> 15'55		conjunction	-4357 Jun 16 j 08:05	18° <del>8</del> 47'44	0°-22'-59
opposition	-4363 Sep 26 j 10:29	0° <del>X</del> 43'50	-2°-59'-15	minimum elong	-4357 Jun 16 j 08:06	18° <del>8</del> 47'44	0°22'51
min. Earth dist.	-4363 Sep 25 j 22:52	0° <del>X</del> 46'16	7.84572 AU	max. Earth dist.	-4357 Jun 16 j 22:55	18° <del>8</del> 52'22	10.37684 AU
	-4363 Oct 05 j 04:41	30° <del>R</del>		morning rise	-4357 Jul 04 j 02:18	21° <del>8</del> 00'09	
direct	-4363 Dec 01 j 07:11	27° <del>14</del> '15		retrograde	-4357 Oct 12 j 18:37	28° <del>8</del> 33'58	
	-4362 Jan 25 j 16:22	0° <del>X</del>		opposition	-4357 Dec 18 j 19:04	25° <del>8</del> 11'10	0°-8'-41
evening set	-4362 Mar 15 j 21:20	5° <del>X</del> 40'47		min. Earth dist.	-4357 Dec 18 j 07:49	25° <del>8</del> 13'24	8.45327 AU
				direct	-4356 Feb 26 j 02:20	21° <del>8</del> 43'32	
conjunction	-4362 Apr 02 j 22:40	8° <del>X</del> 04'08	-2°-20'-46	asc. node	-4356 Mar 10 j 05:04	21° <del>8</del> 52'25	
minimum elong	-4362 Apr 02 j 22:42	8° <del>X</del> 04'09	2°20'52	evening set	-4356 Jun 11 j 03:47	29° <del>8</del> 32'08	
max. Earth dist.	-4362 Apr 03 j 15:43	8° <del>X</del> 09'49	9.85172 AU		-4356 Jun 14 j 23:54	0° <del>II</del>	
morning rise	-4362 Apr 21 j 01:35	10° <del>X</del> 28'00					
retrograde	-4362 Aug 05 j 13:54	19° <del>X</del> 02'09		conjunction	-4356 Jun 28 j 22:13	1° <del>II</del> 42'32	0°09'23
opposition	-4362 Oct 11 j 03:27	15° <del>X</del> 30'48	-2°-51'00	minimum elong	-4356 Jun 28 j 22:12	1° <del>II</del> 42'32	0°09'34
min. Earth dist.	-4362 Oct 10 j 13:43	15° <del>X</del> 33'41	7.87187 AU	behind sun begin	-4356 Jun 28 j 16:15	1° <del>II</del> 40'43	
direct	-4362 Dec 16 j 06:38	12° <del>X</del> 00'39		behind sun end	-4356 Jun 29 j 04:10	1° <del>II</del> 44'21	
evening set	-4361 Mar 31 j 14:23	20° <del>X</del> 27'11		max. Earth dist.	-4356 Jun 29 j 10:23	1° <del>II</del> 46'16	10.53237 AU
				morning rise	-4356 Jul 16 j 11:37	3° <del>II</del> 51'23	
conjunction	-4361 Apr 18 j 17:36	22° <del>X</del> 50'13	-2°-9'-46	retrograde	-4356 Oct 24 j 07:13	11° <del>II</del> 13'01	
minimum elong	-4361 Apr 18 j 17:40	22° <del>X</del> 50'14	2°09'50	opposition	-4356 Dec 30 j 16:52	7° <del>II</del> 52'03	0°30'30
max. Earth dist.	-4361 Apr 19 j 12:52	22° <del>X</del> 56'36	9.89761 AU	min. Earth dist.	-4356 Dec 30 j 07:47	7° <del>II</del> 53'49	8.60861 AU
morning rise	-4361 May 06 j 20:59	25° <del>X</del> 13'16		direct	-4355 Mar 10 j 16:05	4° <del>II</del> 25'37	
	-4361 Jun 16 j 06:55	0° <del>Y</del>		evening set	-4355 Jun 24 j 09:24	12° <del>II</del> 04'02	
retrograde	-4361 Aug 20 j 07:41	3° <del>Y</del> 38'45					
opposition	-4361 Oct 25 j 16:23	0° <del>Y</del> 08'36	-2°-31'-40	conjunction	-4355 Jul 11 j 23:02	14° <del>II</del> 10'58	0°40'16
min. Earth dist.	-4361 Oct 25 j 01:39	0° <del>Y</del> 11'41	7.93570 AU	minimum elong	-4355 Jul 11 j 23:00	14° <del>II</del> 10'57	0°40'28
	-4361 Oct 27 j 09:27	30° <del>R</del> X		max. Earth dist.	-4355 Jul 12 j 08:06	14° <del>II</del> 13'43	10.68536 AU
direct	-4361 Dec 31 j 06:42	26° <del>X</del> 38'16		morning rise	-4355 Jul 29 j 07:12	16° <del>II</del> 16'17	
	-4360 Mar 02 j 20:36	0° <del>Y</del>		retrograde	-4355 Nov 05 j 12:10	23° <del>II</del> 27'19	
evening set	-4360 Apr 15 j 03:06	5° <del>Y</del> 01'27		opposition	-4354 Jan 12 j 07:01	20° <del>II</del> 08'00	1°06'55
				min. Earth dist.	-4354 Jan 12 j 01:28	20° <del>II</del> 09'04	8.75769 AU
conjunction	-4360 May 03 j 07:04	7° <del>Y</del> 23'13	-1°-50'-36	direct	-4354 Mar 23 j 19:21	16° <del>II</del> 42'50	
minimum elong	-4360 May 03 j 07:09	7° <del>Y</del> 23'15	1°50'36	evening set	-4354 Jul 07 j 03:26	24° <del>II</del> 11'42	
max. Earth dist.	-4360 May 04 j 03:11	7° <del>Y</del> 29'49	9.97954 AU				
morning rise	-4360 May 21 j 09:50	9° <del>Y</del> 44'34		conjunction	-4354 Jul 24 j 11:43	26° <del>II</del> 15'21	1°08'30
retrograde	-4360 Sep 02 j 14:41	17° <del>Y</del> 58'33		minimum elong	-4354 Jul 24 j 11:41	26° <del>II</del> 15'20	1°08'42
opposition	-4360 Nov 07 j 23:09	14° <del>Y</del> 30'00	-2°-3'-7	max. Earth dist.	-4354 Jul 24 j 16:17	26° <del>II</del> 16'42	10.82794 AU
min. Earth dist.	-4360 Nov 07 j 08:31	14° <del>Y</del> 33'02	8.03286 AU	morning rise	-4354 Aug 10 j 14:38	28° <del>II</del> 17'25	
direct	-4359 Jan 14 j 03:32	10° <del>Y</del> 59'53			-4354 Aug 25 j 14:54	0° <del>III</del>	
evening set	-4359 Apr 30 j 08:04	19° <del>Y</del> 16'49		retrograde	-4354 Nov 17 j 07:49	5° <del>III</del> 19'40	
				opposition	-4353 Jan 24 j 14:29	2° <del>III</del> 01'48	1°39'15
conjunction	-4359 May 18 j 11:31	21° <del>Y</del> 36'33	-1°-25'-1	min. Earth dist.	-4353 Jan 24 j 12:46	2° <del>III</del> 02'08	8.89323 AU
minimum elong	-4359 May 18 j 11:35	21° <del>Y</del> 36'34	1°24'58		-4353 Feb 22 j 07:12	30° <del>R</del> II	
max. Earth dist.	-4359 May 19 j 06:54	21° <del>Y</del> 42'48	10.09188 AU	direct	-4353 Apr 05 j 14:19	28° <del>II</del> 37'54	
morning rise	-4359 Jun 05 j 12:34	23° <del>Y</del> 55'26			-4353 May 17 j 09:50	0° <del>III</del>	
	-4359 Jul 31 j 22:55	0° <del>III</del>		evening set	-4353 Jul 19 j 10:50	5° <del>III</del> 58'18	
retrograde	-4359 Sep 16 j 11:00	1° <del>III</del> 56'14					
	-4359 Nov 02 j 21:11	30° <del>R</del> Y		conjunction	-4353 Aug 05 j 13:44	7° <del>III</del> 58'57	1°33'06
opposition	-4359 Nov 21 j 22:14	28° <del>Y</del> 29'32	-1°-27'-56	minimum elong	-4353 Aug 05 j 13:41	7° <del>III</del> 58'56	1°33'18
min. Earth dist.	-4359 Nov 21 j 08:30	28° <del>Y</del> 32'21	8.15691 AU	max. Earth dist.	-4353 Aug 05 j 13:24	7° <del>III</del> 58'51	10.95394 AU
direct	-4358 Jan 28 j 18:41	24° <del>Y</del> 59'58		morning rise	-4353 Aug 22 j 11:43	9° <del>III</del> 58'09	
	-4358 Apr 18 j 14:09	0° <del>III</del>		retrograde	-4353 Nov 28 j 22:39	16° <del>III</del> 53'42	
evening set	-4358 May 15 j 02:43	3° <del>III</del> 08'32		opposition	-4352 Feb 05 j 16:38	13° <del>III</del> 36'57	2°06'36
				min. Earth dist.	-4352 Feb 05 j 17:55	13° <del>III</del> 36'43	9.00995 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 5

Attention, astronomical year style is used: The year -4352 in astronomical counting style is the year 4353 BCE in historical counting style.

direct	-4352 Apr 17 j 03:06	10° $\mathring{\text{C}}$ 14'18		direct	-4346 Jun 25 j 14:48	16° $\mathring{\text{M}}$ 38'57	
evening set	-4352 Jul 30 j 08:44	17° $\mathring{\text{C}}$ 27'20		evening set	-4346 Oct 04 j 09:53	23° $\mathring{\text{M}}$ 34'42	
conjunction	-4352 Aug 16 j 06:43	19° $\mathring{\text{C}}$ 25'26	1°53'24	conjunction	-4346 Oct 20 j 18:44	25° $\mathring{\text{M}}$ 28'49	2°09'08
minimum elong	-4352 Aug 16 j 06:40	19° $\mathring{\text{C}}$ 25'25	1°53'36	minimum elong	-4346 Oct 20 j 18:47	25° $\mathring{\text{M}}$ 28'49	2°09'10
max. Earth dist.	-4352 Aug 16 j 02:46	19° $\mathring{\text{C}}$ 24'16	11.05916 AU	max. Earth dist.	-4346 Oct 20 j 01:51	25° $\mathring{\text{M}}$ 23'52	11.13748 AU
morning rise	-4352 Sep 02 j 00:11	21° $\mathring{\text{C}}$ 22'13		morning rise	-4346 Nov 06 j 03:41	27° $\mathring{\text{M}}$ 23'01	
retrograde	-4352 Dec 09 j 10:08	28° $\mathring{\text{C}}$ 12'58			-4346 Nov 30 j 03:49	0° $\mathring{\text{A}}$	
opposition	-4351 Feb 16 j 14:29	24° $\mathring{\text{C}}$ 57'01	2°28'22	retrograde	-4345 Feb 15 j 07:04	4° $\mathring{\text{A}}$ 21'50	
min. Earth dist.	-4351 Feb 16 j 18:06	24° $\mathring{\text{C}}$ 56'21	9.10418 AU	opposition	-4345 Apr 27 j 06:39	1° $\mathring{\text{A}}$ 03'43	2°28'48
direct	-4351 Apr 29 j 07:13	21° $\mathring{\text{C}}$ 35'31		min. Earth dist.	-4345 Apr 27 j 21:57	1° $\mathring{\text{A}}$ 00'55	9.10099 AU
evening set	-4351 Aug 10 j 22:59	28° $\mathring{\text{C}}$ 42'22			-4345 May 12 j 00:01	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
	-4351 Aug 22 j 04:40	0° $\mathring{\text{Q}}$		direct	-4345 Jul 07 j 04:03	27° $\mathring{\text{M}}$ 45'14	
conjunction	-4351 Aug 27 j 16:42	0° $\mathring{\text{Q}}$ 38'24	2°08'57		-4345 Aug 29 j 17:42	0° $\mathring{\text{A}}$	
minimum elong	-4351 Aug 27 j 16:39	0° $\mathring{\text{Q}}$ 38'23	2°09'08	evening set	-4345 Oct 15 j 12:22	4° $\mathring{\text{A}}$ 43'04	
max. Earth dist.	-4351 Aug 27 j 10:17	0° $\mathring{\text{Q}}$ 36'32	11.14050 AU	conjunction	-4345 Oct 31 j 22:20	6° $\mathring{\text{A}}$ 38'31	1°53'41
morning rise	-4351 Sep 13 j 06:12	2° $\mathring{\text{Q}}$ 33'18		minimum elong	-4345 Oct 31 j 22:23	6° $\mathring{\text{A}}$ 38'31	1°53'41
retrograde	-4351 Dec 20 j 19:22	9° $\mathring{\text{Q}}$ 21'03		max. Earth dist.	-4345 Oct 31 j 04:33	6° $\mathring{\text{A}}$ 33'15	11.05575 AU
opposition	-4350 Feb 28 j 09:19	6° $\mathring{\text{Q}}$ 05'33	2°44'09	morning rise	-4345 Nov 17 j 09:32	8° $\mathring{\text{A}}$ 34'23	
min. Earth dist.	-4350 Feb 28 j 15:59	6° $\mathring{\text{Q}}$ 04'20	9.17320 AU	retrograde	-4344 Feb 27 j 07:40	15° $\mathring{\text{A}}$ 40'23	
direct	-4350 May 11 j 05:30	2° $\mathring{\text{Q}}$ 45'01		opposition	-4344 May 08 j 09:33	12° $\mathring{\text{A}}$ 20'58	2°07'12
evening set	-4350 Aug 22 j 07:06	9° $\mathring{\text{Q}}$ 46'59		min. Earth dist.	-4344 May 09 j 01:03	12° $\mathring{\text{A}}$ 18'06	9.00678 AU
conjunction	-4350 Sep 07 j 21:06	11° $\mathring{\text{Q}}$ 41'28	2°19'28	direct	-4344 Jul 17 j 18:46	9° $\mathring{\text{A}}$ 02'17	
minimum elong	-4350 Sep 07 j 21:04	11° $\mathring{\text{Q}}$ 41'28	2°19'38	evening set	-4344 Oct 25 j 19:14	16° $\mathring{\text{A}}$ 03'45	
max. Earth dist.	-4350 Sep 07 j 11:26	11° $\mathring{\text{Q}}$ 38'40	11.19571 AU	conjunction	-4344 Nov 11 j 07:23	18° $\mathring{\text{A}}$ 01'05	1°33'32
morning rise	-4350 Sep 24 j 07:39	13° $\mathring{\text{Q}}$ 35'03		minimum elong	-4344 Nov 11 j 07:26	18° $\mathring{\text{A}}$ 01'06	1°33'29
	-4350 Oct 07 j 02:04	15° $\mathring{\text{Q}}$		max. Earth dist.	-4344 Nov 10 j 14:25	17° $\mathring{\text{A}}$ 56'01	10.95105 AU
retrograde	-4349 Jan 01 j 02:48	20° $\mathring{\text{Q}}$ 21'34		morning rise	-4344 Nov 27 j 21:30	19° $\mathring{\text{A}}$ 59'06	
opposition	-4349 Mar 12 j 02:39	17° $\mathring{\text{Q}}$ 06'11	2°53'44	retrograde	-4343 Mar 10 j 17:54	27° $\mathring{\text{A}}$ 13'54	
min. Earth dist.	-4349 Mar 12 j 12:29	17° $\mathring{\text{Q}}$ 04'23	9.21514 AU	opposition	-4343 May 20 j 17:59	23° $\mathring{\text{A}}$ 52'59	1°40'02
	-4349 Apr 12 j 06:06	15° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		min. Earth dist.	-4343 May 21 j 08:21	23° $\mathring{\text{A}}$ 50'18	8.89116 AU
direct	-4349 May 22 j 22:43	13° $\mathring{\text{Q}}$ 46'26		direct	-4343 Jul 29 j 15:24	20° $\mathring{\text{A}}$ 33'57	
	-4349 Jul 01 j 20:16	15° $\mathring{\text{Q}}$		evening set	-4343 Nov 06 j 08:38	27° $\mathring{\text{A}}$ 40'33	
evening set	-4349 Sep 02 j 10:26	20° $\mathring{\text{Q}}$ 44'46		conjunction	-4343 Nov 22 j 23:36	29° $\mathring{\text{A}}$ 40'16	1°09'07
conjunction	-4349 Sep 18 j 21:33	22° $\mathring{\text{Q}}$ 38'16	2°24'47	minimum elong	-4343 Nov 22 j 23:39	29° $\mathring{\text{A}}$ 40'17	1°09'01
minimum elong	-4349 Sep 18 j 21:32	22° $\mathring{\text{Q}}$ 38'16	2°24'54	max. Earth dist.	-4343 Nov 22 j 08:00	29° $\mathring{\text{A}}$ 35'33	10.82682 AU
max. Earth dist.	-4349 Sep 18 j 08:38	22° $\mathring{\text{Q}}$ 34'32	11.22335 AU		-4343 Nov 25 j 16:52	0° $\mathring{\text{M}}$	
morning rise	-4349 Oct 05 j 06:15	24° $\mathring{\text{Q}}$ 31'07		morning rise	-4343 Dec 09 j 17:18	1° $\mathring{\text{M}}$ 40'55	
	-4349 Dec 03 j 02:17	0° $\mathring{\text{M}}$		retrograde	-4342 Mar 23 j 13:58	9° $\mathring{\text{M}}$ 05'54	
retrograde	-4348 Jan 12 j 10:03	1° $\mathring{\text{M}}$ 18'11		opposition	-4342 Jun 02 j 09:05	5° $\mathring{\text{M}}$ 43'23	1°07'52
	-4348 Feb 23 j 00:04	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		min. Earth dist.	-4342 Jun 02 j 21:42	5° $\mathring{\text{M}}$ 41'01	8.75831 AU
opposition	-4348 Mar 22 j 19:24	28° $\mathring{\text{Q}}$ 02'32	2°56'59	direct	-4342 Aug 10 j 14:47	2° $\mathring{\text{M}}$ 23'48	
min. Earth dist.	-4348 Mar 23 j 07:21	28° $\mathring{\text{Q}}$ 00'22	9.22883 AU	evening set	-4342 Nov 18 j 06:38	9° $\mathring{\text{M}}$ 37'05	
direct	-4348 Jun 02 j 14:21	24° $\mathring{\text{Q}}$ 43'23		max. Earth dist.	-4342 Dec 04 j 10:11	11° $\mathring{\text{M}}$ 35'03	10.68787 AU
	-4348 Aug 28 j 09:51	0° $\mathring{\text{M}}$		conjunction	-4342 Dec 05 j 00:53	11° $\mathring{\text{M}}$ 39'33	0°41'05
evening set	-4348 Sep 12 j 10:49	1° $\mathring{\text{M}}$ 39'27		minimum elong	-4342 Dec 05 j 00:54	11° $\mathring{\text{M}}$ 39'33	0°40'57
conjunction	-4348 Sep 28 j 20:14	3° $\mathring{\text{M}}$ 32'34	2°24'48	morning rise	-4342 Dec 21 j 22:50	13° $\mathring{\text{M}}$ 43'15	
minimum elong	-4348 Sep 28 j 20:15	3° $\mathring{\text{M}}$ 32'34	2°24'54		-4341 Jan 01 j 19:03	15° $\mathring{\text{M}}$	
max. Earth dist.	-4348 Sep 28 j 05:50	3° $\mathring{\text{M}}$ 28'24	11.22269 AU	retrograde	-4341 Apr 05 j 18:45	21° $\mathring{\text{M}}$ 19'37	
morning rise	-4348 Oct 15 j 03:58	5° $\mathring{\text{M}}$ 25'16		opposition	-4341 Jun 15 j 07:43	17° $\mathring{\text{M}}$ 55'25	0°31'37
retrograde	-4347 Jan 22 j 21:44	12° $\mathring{\text{M}}$ 14'34		min. Earth dist.	-4341 Jun 15 j 18:50	17° $\mathring{\text{M}}$ 53'18	8.61367 AU
opposition	-4347 Apr 03 j 12:36	8° $\mathring{\text{M}}$ 58'21	2°53'52		-4341 Jul 31 j 21:28	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
min. Earth dist.	-4347 Apr 04 j 01:33	8° $\mathring{\text{M}}$ 55'59	9.21388 AU	direct	-4341 Aug 22 j 20:42	14° $\mathring{\text{M}}$ 35'02	
direct	-4347 Jun 14 j 03:56	5° $\mathring{\text{M}}$ 39'37			-4341 Sep 13 j 15:08	15° $\mathring{\text{M}}$	
evening set	-4347 Sep 23 j 10:02	12° $\mathring{\text{M}}$ 34'48		evening set	-4341 Nov 30 j 14:59	21° $\mathring{\text{M}}$ 56'30	
conjunction	-4347 Oct 09 j 18:46	14° $\mathring{\text{M}}$ 28'08	2°19'34	conjunction	-4341 Dec 17 j 12:59	24° $\mathring{\text{M}}$ 02'03	0°10'24
minimum elong	-4347 Oct 09 j 18:48	14° $\mathring{\text{M}}$ 28'08	2°19'38	minimum elong	-4341 Dec 17 j 12:59	24° $\mathring{\text{M}}$ 02'03	0°10'15
max. Earth dist.	-4347 Oct 09 j 03:27	14° $\mathring{\text{M}}$ 23'41	11.19374 AU	behind sun begin	-4341 Dec 17 j 07:20	24° $\mathring{\text{M}}$ 00'19	
morning rise	-4347 Oct 26 j 02:30	16° $\mathring{\text{M}}$ 21'17		behind sun end	-4341 Dec 17 j 18:38	24° $\mathring{\text{M}}$ 03'48	
retrograde	-4346 Feb 03 j 11:33	23° $\mathring{\text{M}}$ 14'30		max. Earth dist.	-4341 Dec 17 j 00:06	23° $\mathring{\text{M}}$ 58'03	10.53998 AU
opposition	-4346 Apr 15 j 07:57	19° $\mathring{\text{M}}$ 57'27	2°44'26	morning rise	-4340 Jan 03 j 15:34	26° $\mathring{\text{M}}$ 09'04	
min. Earth dist.	-4346 Apr 15 j 21:57	19° $\mathring{\text{M}}$ 54'54	9.17078 AU		-4340 Feb 06 j 16:33	0° $\mathring{\text{A}}$	

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 6

Attention, astronomical year style is used: The year -4340 in astronomical counting style is the year 4341 BCE in historical counting style.

retrograde	-4340 Apr 18 j 09:32	3°♂57'40		morning rise	-4334 Mar 29 j 17:19	19°♂26'41	
desc. node	-4340 Apr 18 j 07:19	3°♂57'40		retrograde	-4334 Jul 15 j 10:25	28°♂05'49	
opposition	-4340 Jun 27 j 14:27	0°♂31'48	0°-7'-24	opposition	-4334 Sep 20 j 10:44	24°♂34'13	-2°-58'-52
min. Earth dist.	-4340 Jun 27 j 23:36	0°♂30'01	8.46357 AU	min. Earth dist.	-4334 Sep 20 j 01:17	24°♂36'11	7.86275 AU
	-4340 Jul 04 j 10:51	30°♂		direct	-4334 Nov 25 j 04:55	21°♂05'34	
direct	-4340 Sep 03 j 12:39	27°♂10'26		evening set	-4333 Mar 09 j 11:27	29°♂30'25	
	-4340 Oct 31 j 02:45	0°♂			-4333 Mar 13 j 05:43	0°♂	
evening set	-4340 Dec 12 j 11:22	4°♂41'22					
				conjunction	-4333 Mar 27 j 11:26	1°♂53'26	-2°-22'-33
conjunction	-4340 Dec 29 j 13:25	6°♂50'10	0°-21'-46	minimum elong	-4333 Mar 27 j 11:27	1°♂53'26	2°22'40
minimum elong	-4340 Dec 29 j 13:24	6°♂50'10	0°21'58	max. Earth dist.	-4333 Mar 28 j 00:59	1°♂57'57	9.85857 AU
max. Earth dist.	-4340 Dec 29 j 03:49	6°♂47'09	10.38979 AU	morning rise	-4333 Apr 14 j 13:53	4°♂17'10	
morning rise	-4339 Jan 15 j 20:31	9°♂00'37		retrograde	-4333 Jul 30 j 13:15	12°♂53'30	
retrograde	-4339 May 02 j 11:31	17°♂01'46		opposition	-4333 Oct 05 j 04:45	9°♂22'22	-2°-55'-46
opposition	-4339 Jul 11 j 05:23	13°♂34'18	0°-47'-29	min. Earth dist.	-4333 Oct 04 j 17:30	9°♂24'43	7.86840 AU
min. Earth dist.	-4339 Jul 11 j 11:39	13°♂33'04	8.31529 AU	direct	-4333 Dec 10 j 04:30	5°♂52'55	
direct	-4339 Sep 16 j 12:34	10°♂11'49		evening set	-4332 Mar 24 j 05:06	14°♂19'33	
evening set	-4339 Dec 25 j 20:59	17°♂53'10					
				conjunction	-4332 Apr 11 j 07:23	16°♂42'41	-2°-15'-28
conjunction	-4338 Jan 12 j 03:12	20°♂05'15	0°-53'-43	minimum elong	-4332 Apr 11 j 07:26	16°♂42'42	2°15'33
minimum elong	-4338 Jan 12 j 03:10	20°♂05'14	0°53'56	max. Earth dist.	-4332 Apr 11 j 23:31	16°♂48'02	9.88358 AU
max. Earth dist.	-4338 Jan 11 j 22:07	20°♂03'37	10.24499 AU	morning rise	-4332 Apr 29 j 10:47	19°♂06'06	
morning rise	-4338 Jan 29 j 14:37	22°♂19'05		retrograde	-4332 Aug 13 j 09:32	27°♂35'33	
	-4338 Apr 21 j 23:44	0°♂		opposition	-4332 Oct 18 j 19:53	24°♂05'18	-2°-41'-6
retrograde	-4338 May 16 j 23:26	0°♂32'24		min. Earth dist.	-4332 Oct 18 j 06:56	24°♂08'01	7.91198 AU
	-4338 Jun 11 j 02:28	30°♂		direct	-4332 Dec 24 j 05:40	20°♂35'24	
opposition	-4338 Jul 25 j 04:33	27°♂03'27	-1°-26'-26	evening set	-4331 Apr 08 j 20:05	29°♂00'15	
min. Earth dist.	-4338 Jul 25 j 06:53	27°♂02'59	8.17679 AU		-4331 Apr 16 j 12:12	0°♂	
direct	-4338 Sep 29 j 22:04	23°♂39'45					
	-4338 Dec 27 j 13:59	0°♂		conjunction	-4331 Apr 26 j 23:48	1°♂22'36	-1°-59'-41
evening set	-4337 Jan 08 j 20:21	1°♂31'56		minimum elong	-4331 Apr 26 j 23:52	1°♂22'38	1°59'42
				max. Earth dist.	-4331 Apr 27 j 17:45	1°♂28'31	9.94599 AU
conjunction	-4337 Jan 26 j 06:39	3°♂47'10	-1°-23'-37	morning rise	-4331 May 15 j 03:06	3°♂44'45	
minimum elong	-4337 Jan 26 j 06:36	3°♂47'09	1°23'50	retrograde	-4331 Aug 27 j 20:35	12°♂04'02	
max. Earth dist.	-4337 Jan 26 j 06:05	3°♂46'59	10.11366 AU	opposition	-4331 Nov 02 j 05:42	8°♂35'01	-2°-16'-18
morning rise	-4337 Feb 12 j 22:06	6°♂04'08		min. Earth dist.	-4331 Nov 01 j 15:39	8°♂37'56	7.99090 AU
retrograde	-4337 May 31 j 19:48	14°♂28'17		direct	-4330 Jan 08 j 04:12	5°♂04'59	
opposition	-4337 Aug 08 j 11:04	10°♂58'05	-2°-1'-39	evening set	-4330 Apr 24 j 05:00	13°♂24'53	
min. Earth dist.	-4337 Aug 08 j 09:27	10°♂58'25	8.05593 AU				
direct	-4337 Oct 13 j 17:29	7°♂33'06		conjunction	-4330 May 12 j 08:58	15°♂45'36	-1°-36'-39
evening set	-4336 Jan 23 j 09:16	15°♂35'52		minimum elong	-4330 May 12 j 09:02	15°♂45'37	1°36'38
				max. Earth dist.	-4330 May 13 j 03:33	15°♂51'39	10.04153 AU
conjunction	-4336 Feb 09 j 23:24	17°♂53'54	-1°-49'-19	morning rise	-4330 May 30 j 10:59	18°♂05'39	
minimum elong	-4336 Feb 09 j 23:20	17°♂53'53	1°49'32	retrograde	-4330 Sep 10 j 22:20	26°♂12'26	
max. Earth dist.	-4336 Feb 10 j 03:03	17°♂55'07	10.00357 AU	opposition	-4330 Nov 16 j 08:19	22°♂44'57	-1°-43'-42
morning rise	-4336 Feb 27 j 18:26	20°♂13'34		min. Earth dist.	-4330 Nov 15 j 18:05	22°♂47'53	8.09976 AU
retrograde	-4336 Jun 14 j 22:09	28°♂46'08		direct	-4329 Jan 22 j 21:44	19°♂15'07	
opposition	-4336 Aug 21 j 23:28	25°♂15'03	-2°-30'-23	evening set	-4329 May 09 j 04:40	27°♂27'35	
min. Earth dist.	-4336 Aug 21 j 18:32	25°♂16'04	7.95990 AU				
direct	-4336 Oct 26 j 21:28	21°♂48'44		conjunction	-4329 May 27 j 07:28	29°♂45'55	-1°-8'-22
evening set	-4335 Feb 06 j 09:56	0°♂00'59		minimum elong	-4329 May 27 j 07:31	29°♂45'56	1°08'17
	-4335 Feb 06 j 06:55	0°♂		max. Earth dist.	-4329 May 28 j 01:34	29°♂51'43	10.16351 AU
					-4329 May 29 j 03:27	0°♂	
conjunction	-4335 Feb 24 j 03:38	2°♂21'19	-2°-8'-47	morning rise	-4329 Jun 14 j 06:59	2°♂03'10	
minimum elong	-4335 Feb 24 j 03:35	2°♂21'18	2°08'58	retrograde	-4329 Sep 24 j 13:31	9°♂56'25	
max. Earth dist.	-4335 Feb 24 j 11:06	2°♂23'48	9.92141 AU	opposition	-4329 Nov 30 j 02:56	6°♂30'39	-1°-6'-3
morning rise	-4335 Mar 14 j 01:44	4°♂43'05		min. Earth dist.	-4329 Nov 29 j 13:49	6°♂33'19	8.23130 AU
retrograde	-4335 Jun 30 j 04:14	13°♂20'50		direct	-4328 Feb 06 j 08:40	3°♂01'22	
opposition	-4335 Sep 05 j 16:08	9°♂49'15	-2°-50'-6	evening set	-4328 May 22 j 16:48	11°♂04'39	
min. Earth dist.	-4335 Sep 05 j 08:35	9°♂50'49	7.89424 AU				
direct	-4335 Nov 10 j 09:46	6°♂21'39		conjunction	-4328 Jun 09 j 17:01	13°♂20'01	0°-36'-58
evening set	-4334 Feb 21 j 19:39	14°♂41'29		minimum elong	-4328 Jun 09 j 17:03	13°♂20'01	0°36'51
	-4334 Feb 24 j 04:13	15°♂		max. Earth dist.	-4328 Jun 10 j 09:15	13°♂25'08	10.30394 AU
					-4328 Jun 22 j 23:15	15°♂	
conjunction	-4334 Mar 11 j 16:41	17°♂03'31	-2°-20'-14	morning rise	-4328 Jun 27 j 12:59	15°♂34'01	
minimum elong	-4334 Mar 11 j 16:40	17°♂03'31	2°20'23	retrograde	-4328 Oct 06 j 16:52	23°♂13'45	
max. Earth dist.	-4334 Mar 12 j 03:21	17°♂07'05	9.87192 AU	opposition	-4328 Dec 12 j 12:54	19°♂49'47	0°-26'-4

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 7

Attention, astronomical year style is used: The year -4328 in astronomical counting style is the year 4329 BCE in historical counting style.

min. Earth dist.	-4328 Dec 12 j 01:50	19° $\text{S}$ 52'01	8.37743 AU			-4322 Sep 27 j 05:01	0° $\text{N}$	
direct	-4327 Feb 19 j 12:00	16° $\text{S}$ 21'18		retrograde		-4322 Dec 16 j 04:47	4° $\text{N}$ 46'57	
evening set	-4327 Jun 05 j 16:34	24° $\text{S}$ 14'35		opposition		-4321 Feb 23 j 16:24	1° $\text{N}$ 31'05	2°38'00
				min. Earth dist.		-4321 Feb 23 j 21:14	1° $\text{N}$ 30'11	9.14655 AU
conjunction	-4327 Jun 23 j 12:59	26° $\text{S}$ 26'36	0°-4'-35			-4321 Mar 17 j 00:07	30° $\text{R}$ $\text{S}$	
minimum elong	-4327 Jun 23 j 12:59	26° $\text{S}$ 26'36	0°04'27	direct		-4321 May 06 j 11:47	28° $\text{S}$ 09'56	
behind sun begin	-4327 Jun 23 j 05:53	26° $\text{S}$ 24'25				-4321 Jun 24 j 14:40	0° $\text{N}$	
behind sun end	-4327 Jun 23 j 20:06	26° $\text{S}$ 28'47		evening set		-4321 Aug 17 j 19:01	5° $\text{N}$ 13'35	
max. Earth dist.	-4327 Jun 24 j 01:56	26° $\text{S}$ 30'36	10.45446 AU					
morning rise	-4327 Jul 11 j 04:37	28° $\text{S}$ 37'07		conjunction		-4321 Sep 03 j 10:28	7° $\text{N}$ 08'37	2°15'29
	-4327 Jul 22 j 19:02	0° $\text{I}$		minimum elong		-4321 Sep 03 j 10:26	7° $\text{N}$ 08'36	2°15'39
asc. node	-4327 Aug 15 j 18:57	2° $\text{I}$ 35'44		max. Earth dist.		-4321 Sep 03 j 02:58	7° $\text{N}$ 06'26	11.17829 AU
retrograde	-4327 Oct 19 j 08:30	6° $\text{I}$ 04'07		morning rise		-4321 Sep 19 j 22:20	9° $\text{N}$ 02'38	
opposition	-4327 Dec 25 j 14:07	2° $\text{I}$ 41'58	0°13'48			-4321 Nov 25 j 23:13	15° $\text{N}$	
min. Earth dist.	-4327 Dec 25 j 05:28	2° $\text{I}$ 43'41	8.52987 AU	retrograde		-4321 Dec 27 j 13:32	15° $\text{N}$ 49'03	
	-4326 Feb 03 j 00:10	30° $\text{R}$ $\text{S}$				-4320 Jan 28 j 18:35	15° $\text{R}$ $\text{N}$	
direct	-4326 Mar 05 j 06:30	29° $\text{S}$ 14'29		opposition		-4320 Mar 06 j 09:40	12° $\text{N}$ 33'36	2°50'15
	-4326 Apr 04 j 10:45	0° $\text{I}$		min. Earth dist.		-4320 Mar 06 j 16:24	12° $\text{N}$ 32'22	9.20674 AU
evening set	-4326 Jun 19 j 03:43	6° $\text{I}$ 57'36		direct		-4320 May 17 j 07:21	9° $\text{N}$ 13'34	
						-4320 Aug 17 j 01:08	15° $\text{N}$	
conjunction	-4326 Jul 06 j 19:29	9° $\text{I}$ 06'09	0°27'10	evening set		-4320 Aug 27 j 23:37	16° $\text{N}$ 12'51	
minimum elong	-4326 Jul 06 j 19:28	9° $\text{I}$ 06'09	0°27'21					
max. Earth dist.	-4326 Jul 07 j 04:35	9° $\text{I}$ 08'56	10.60697 AU	conjunction		-4320 Sep 13 j 12:00	18° $\text{N}$ 06'37	2°23'03
morning rise	-4326 Jul 24 j 06:12	11° $\text{I}$ 13'08		minimum elong		-4320 Sep 13 j 11:59	18° $\text{N}$ 06'37	2°23'11
retrograde	-4326 Oct 31 j 15:45	18° $\text{I}$ 28'50		max. Earth dist.		-4320 Sep 13 j 02:40	18° $\text{N}$ 03'55	11.22439 AU
opposition	-4325 Jan 07 j 07:25	15° $\text{I}$ 08'20	0°51'37	morning rise		-4320 Sep 29 j 21:20	19° $\text{N}$ 59'35	
min. Earth dist.	-4325 Jan 07 j 00:50	15° $\text{I}$ 09'37	8.68078 AU	retrograde		-4319 Jan 06 j 20:57	26° $\text{N}$ 45'38	
direct	-4325 Mar 18 j 14:59	11° $\text{I}$ 42'04		opposition		-4319 Mar 18 j 01:52	23° $\text{N}$ 30'19	2°56'13
evening set	-4325 Jul 02 j 02:33	19° $\text{I}$ 15'20		min. Earth dist.		-4319 Mar 18 j 10:50	23° $\text{N}$ 28'40	9.23905 AU
				direct		-4319 May 28 j 21:58	20° $\text{N}$ 11'11	
conjunction	-4325 Jul 19 j 13:12	21° $\text{I}$ 20'30	0°56'41	evening set		-4319 Sep 08 j 00:46	27° $\text{N}$ 07'29	
minimum elong	-4325 Jul 19 j 13:10	21° $\text{I}$ 20'29	0°56'52					
max. Earth dist.	-4325 Jul 19 j 19:00	21° $\text{I}$ 22'15	10.75409 AU	conjunction		-4319 Sep 24 j 10:51	29° $\text{N}$ 00'33	2°25'22
morning rise	-4325 Aug 05 j 18:37	23° $\text{I}$ 24'05		minimum elong		-4319 Sep 24 j 10:51	29° $\text{N}$ 00'33	2°25'28
	-4325 Oct 19 j 15:44	0° $\text{S}$		max. Earth dist.		-4319 Sep 23 j 22:55	28° $\text{N}$ 57'06	11.24217 AU
retrograde	-4325 Nov 12 j 14:48	0° $\text{S}$ 30'12				-4319 Oct 03 j 00:51	0° $\text{N}$	
	-4325 Dec 06 j 21:07	30° $\text{R}$ $\text{I}$		morning rise		-4319 Oct 10 j 18:43	0° $\text{N}$ 53'03	
opposition	-4324 Jan 19 j 17:33	27° $\text{I}$ 11'12	1°25'50	retrograde		-4318 Jan 18 j 06:25	7° $\text{N}$ 40'26	
min. Earth dist.	-4324 Jan 19 j 13:05	27° $\text{I}$ 12'03	8.82322 AU	opposition		-4318 Mar 29 j 18:16	4° $\text{N}$ 24'55	2°55'50
direct	-4324 Mar 30 j 14:17	23° $\text{I}$ 46'14		min. Earth dist.		-4318 Mar 30 j 06:03	4° $\text{N}$ 22'46	9.24250 AU
	-4324 Jul 03 j 07:58	0° $\text{S}$		direct		-4318 Jun 09 j 10:44	1° $\text{N}$ 06'28	
evening set	-4324 Jul 13 j 14:08	1° $\text{S}$ 10'25		evening set		-4318 Sep 19 j 00:00	8° $\text{N}$ 01'10	
conjunction	-4324 Jul 30 j 19:35	3° $\text{S}$ 12'25	1°22'56	conjunction		-4318 Oct 05 j 08:42	9° $\text{N}$ 54'06	2°22'24
minimum elong	-4324 Jul 30 j 19:32	3° $\text{S}$ 12'25	1°23'08	minimum elong		-4318 Oct 05 j 08:43	9° $\text{N}$ 54'06	2°22'29
max. Earth dist.	-4324 Jul 30 j 22:43	3° $\text{S}$ 13'21	10.88953 AU	max. Earth dist.		-4318 Oct 04 j 18:04	9° $\text{N}$ 49'51	11.23120 AU
morning rise	-4324 Aug 16 j 19:43	5° $\text{S}$ 12'55		morning rise		-4318 Oct 21 j 16:19	11° $\text{N}$ 46'46	
retrograde	-4324 Nov 23 j 09:08	12° $\text{S}$ 11'17		retrograde		-4317 Jan 29 j 16:36	18° $\text{N}$ 37'11	
opposition	-4323 Jan 30 j 21:35	8° $\text{S}$ 53'36	1°55'25	opposition		-4317 Apr 10 j 12:11	15° $\text{N}$ 21'06	2°49'09
min. Earth dist.	-4323 Jan 30 j 20:10	8° $\text{S}$ 53'52	8.95142 AU	min. Earth dist.		-4317 Apr 11 j 01:38	15° $\text{N}$ 18'39	9.21696 AU
direct	-4323 Apr 12 j 04:35	5° $\text{S}$ 29'57		direct		-4317 Jun 20 j 21:58	12° $\text{N}$ 03'06	
evening set	-4323 Jul 25 j 15:46	12° $\text{S}$ 46'05		evening set		-4317 Sep 29 j 22:50	18° $\text{N}$ 57'34	
conjunction	-4323 Aug 11 j 16:04	14° $\text{S}$ 45'18	1°45'09	conjunction		-4317 Oct 16 j 07:23	20° $\text{N}$ 50'59	2°14'15
minimum elong	-4323 Aug 11 j 16:01	14° $\text{S}$ 45'17	1°45'21	minimum elong		-4317 Oct 16 j 07:25	20° $\text{N}$ 50'59	2°14'17
max. Earth dist.	-4323 Aug 11 j 15:38	14° $\text{S}$ 45'10	11.00805 AU	max. Earth dist.		-4317 Oct 15 j 15:47	20° $\text{N}$ 46'26	11.19162 AU
morning rise	-4323 Aug 28 j 11:23	16° $\text{S}$ 43'07		morning rise		-4317 Nov 01 j 15:39	22° $\text{N}$ 44'23	
retrograde	-4323 Dec 04 j 20:41	23° $\text{S}$ 35'37		retrograde		-4316 Feb 10 j 09:59	29° $\text{N}$ 39'31	
opposition	-4322 Feb 11 j 20:49	20° $\text{S}$ 18'59	2°19'38	opposition		-4316 Apr 21 j 08:36	26° $\text{N}$ 22'32	2°36'14
min. Earth dist.	-4322 Feb 11 j 22:58	20° $\text{S}$ 18'35	9.06048 AU	min. Earth dist.		-4316 Apr 21 j 22:33	26° $\text{N}$ 19'59	9.16287 AU
direct	-4322 Apr 24 j 10:08	16° $\text{S}$ 56'38		direct		-4316 Jul 01 j 11:43	23° $\text{N}$ 04'44	
evening set	-4322 Aug 06 j 08:55	24° $\text{S}$ 05'54		evening set		-4316 Oct 09 j 23:27	0° $\text{N}$ 00'25	
						-4316 Oct 09 j 21:59	0° $\text{N}$	
conjunction	-4322 Aug 23 j 04:22	26° $\text{S}$ 02'45	2°02'47	conjunction				
minimum elong	-4322 Aug 23 j 04:19	26° $\text{S}$ 02'45	2°02'58	minimum elong		-4316 Oct 26 j 08:50	1° $\text{N}$ 54'54	2°01'01
max. Earth dist.	-4322 Aug 22 j 23:44	26° $\text{S}$ 01'24	11.10537 AU	max. Earth dist.		-4316 Oct 26 j 08:52	1° $\text{N}$ 54'55	2°01'01
morning rise	-4322 Sep 08 j 19:36	27° $\text{S}$ 58'25		max. Earth dist.		-4316 Oct 25 j 16:45	1° $\text{N}$ 50'11	11.12411 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 8

Attention, astronomical year style is used: The year -4316 in astronomical counting style is the year 4317 BCE in historical counting style.

morning rise	-4316 Nov 11 j 18:39	3° $\overline{49}$ '38		conjunction	-4309 Jan 06 j 05:54	14° $\overline{27}$ '11'26	0°-39'-12
retrograde	-4315 Feb 21 j 08:28	10° $\overline{45}$ '02		minimum elong	-4309 Jan 06 j 05:52	14° $\overline{27}$ '11'25	0°39'24
opposition	-4315 May 03 j 08:37	7° $\overline{43}$ '54	2°17'18	max. Earth dist.	-4309 Jan 05 j 20:29	14° $\overline{27}$ '08'26	10.31666 AU
min. Earth dist.	-4315 May 03 j 23:09	7° $\overline{43}$ '30'14	9.08134 AU	morning rise	-4309 Jan 23 j 15:17	16° $\overline{27}$ '23'34	
direct	-4315 Jul 13 j 00:06	4° $\overline{41}$ '50'02		retrograde	-4309 May 10 j 16:00	24° $\overline{27}$ '30'43	
evening set	-4315 Oct 21 j 03:40	11° $\overline{41}$ '13'31		opposition	-4309 Jul 19 j 03:03	21° $\overline{27}$ '02'16	-1°-8'-49
				min. Earth dist.	-4309 Jul 19 j 08:29	21° $\overline{27}$ '01'11	8.24170 AU
conjunction	-4315 Nov 06 j 14:36	13° $\overline{40}$ '09'36	1°42'58	direct	-4309 Sep 24 j 02:59	17° $\overline{27}$ '38'53	
minimum elong	-4315 Nov 06 j 14:39	13° $\overline{40}$ '09'37	1°42'55	evening set	-4308 Jan 02 j 18:07	25° $\overline{27}$ '25'35	
max. Earth dist.	-4315 Nov 05 j 21:06	13° $\overline{40}$ '04'26	11.03023 AU				
morning rise	-4315 Nov 23 j 03:03	15° $\overline{40}$ '06'14		conjunction	-4308 Jan 20 j 02:20	27° $\overline{27}$ '39'19	-1°-10'-14
retrograde	-4314 Mar 05 j 13:30	22° $\overline{40}$ '15'37		minimum elong	-4308 Jan 20 j 02:17	27° $\overline{27}$ '39'18	1°10'26
opposition	-4314 May 15 j 13:54	18° $\overline{40}$ '56'05	1°52'38	max. Earth dist.	-4308 Jan 19 j 20:44	27° $\overline{27}$ '37'30	10.17163 AU
min. Earth dist.	-4314 May 16 j 05:13	18° $\overline{40}$ '53'15	8.97451 AU	morning rise	-4308 Feb 06 j 16:03	29° $\overline{27}$ '54'48	
direct	-4314 Jul 24 j 16:29	15° $\overline{40}$ '37'52			-4308 Feb 07 j 08:29	0° $\overline{27}$ '	
evening set	-4314 Nov 01 j 13:17	22° $\overline{40}$ '40'48		retrograde	-4308 May 24 j 07:18	8° $\overline{27}$ '13'48	
max. Earth dist.	-4314 Nov 17 j 08:34	24° $\overline{40}$ '33'38	10.91280 AU	opposition	-4308 Aug 01 j 05:47	4° $\overline{27}$ '43'48	-1°-46'-2
				min. Earth dist.	-4308 Aug 01 j 08:08	4° $\overline{27}$ '43'20	8.10513 AU
conjunction	-4314 Nov 18 j 02:35	24° $\overline{40}$ '39'02	1°20'27	direct	-4308 Oct 06 j 18:00	1° $\overline{27}$ '18'59	
minimum elong	-4314 Nov 18 j 02:38	24° $\overline{40}$ '39'03	1°20'22	evening set	-4307 Jan 16 j 00:07	9° $\overline{27}$ '16'48	
morning rise	-4314 Dec 04 j 18:32	26° $\overline{40}$ '38'06					
	-4313 Jan 04 j 11:10	0° $\overline{27}$ '		conjunction	-4307 Feb 02 j 12:22	11° $\overline{27}$ '33'36	-1°-38'-6
retrograde	-4313 Mar 18 j 03:04	3° $\overline{27}$ '57'04		minimum elong	-4307 Feb 02 j 12:18	11° $\overline{27}$ '33'35	1°38'18
opposition	-4313 May 28 j 01:20	0° $\overline{27}$ '35'56	1°22'45	max. Earth dist.	-4307 Feb 02 j 11:40	11° $\overline{27}$ '33'22	10.04423 AU
min. Earth dist.	-4313 May 28 j 16:32	0° $\overline{27}$ '33'05	8.84625 AU	morning rise	-4307 Feb 20 j 05:53	13° $\overline{27}$ '52'07	
	-4313 Jun 05 j 02:16	30° $\overline{27}$ ' $\overline{4}$		retrograde	-4307 Jun 08 j 06:19	22° $\overline{27}$ '21'12	
direct	-4313 Aug 05 j 13:59	27° $\overline{27}$ ' $\overline{4}$ 17'07		opposition	-4307 Aug 15 j 15:25	18° $\overline{27}$ '50'01	-2°-18'-6
	-4313 Oct 02 j 12:14	0° $\overline{27}$ '		min. Earth dist.	-4307 Aug 15 j 13:58	18° $\overline{27}$ '50'19	7.99048 AU
evening set	-4313 Nov 13 j 06:30	4° $\overline{27}$ ' $\overline{4}$ 26'06		direct	-4307 Oct 20 j 17:58	15° $\overline{27}$ '23'45	
				evening set	-4306 Jan 30 j 19:06	23° $\overline{27}$ '32'03	
conjunction	-4313 Nov 29 j 23:03	6° $\overline{27}$ ' $\overline{4}$ 26'57	0°54'02				
minimum elong	-4313 Nov 29 j 23:05	6° $\overline{27}$ ' $\overline{4}$ 26'58	0°53'56	conjunction	-4306 Feb 17 j 11:14	25° $\overline{27}$ '51'32	-2°00'-41
max. Earth dist.	-4313 Nov 29 j 06:29	6° $\overline{27}$ ' $\overline{4}$ 21'55	10.77640 AU	minimum elong	-4306 Feb 17 j 11:10	25° $\overline{27}$ '51'30	2°00'53
morning rise	-4313 Dec 16 j 18:56	8° $\overline{27}$ ' $\overline{4}$ 28'54		max. Earth dist.	-4306 Feb 17 j 15:43	25° $\overline{27}$ '53'01	9.94254 AU
	-4312 Feb 24 j 08:11	15° $\overline{27}$ '		morning rise	-4306 Mar 07 j 08:03	28° $\overline{27}$ '12'33	
retrograde	-4312 Mar 30 j 01:58	15° $\overline{27}$ ' $\overline{4}$ 58'48			-4306 Mar 21 j 10:51	0° $\overline{27}$ '	
	-4312 May 04 j 10:43	15° $\overline{27}$ ' $\overline{4}$ 58'48		retrograde	-4306 Jun 23 j 11:13	6° $\overline{27}$ ' $\overline{4}$ 48'54	
opposition	-4312 Jun 08 j 19:35	12° $\overline{27}$ ' $\overline{4}$ 35'52	0°48'21	opposition	-4306 Aug 30 j 06:22	3° $\overline{27}$ ' $\overline{4}$ 16'55	-2°-42'-19
min. Earth dist.	-4312 Jun 09 j 09:07	12° $\overline{27}$ ' $\overline{4}$ 33'18	8.70202 AU	min. Earth dist.	-4306 Aug 30 j 01:00	3° $\overline{27}$ ' $\overline{4}$ 18'02	7.90512 AU
direct	-4312 Aug 16 j 17:46	9° $\overline{27}$ ' $\overline{4}$ 16'13			-4306 Oct 21 j 12:11	30° $\overline{27}$ ' $\overline{4}$ 9'18	
	-4312 Nov 11 j 06:29	15° $\overline{27}$ '		direct	-4306 Nov 04 j 02:30	29° $\overline{27}$ ' $\overline{4}$ 49'18	
evening set	-4312 Nov 24 j 09:12	16° $\overline{27}$ ' $\overline{4}$ 32'48			-4306 Nov 17 j 15:34	0° $\overline{27}$ '	
				evening set	-4305 Feb 15 j 01:03	8° $\overline{27}$ ' $\overline{4}$ 06'31	
conjunction	-4312 Dec 11 j 05:27	18° $\overline{27}$ ' $\overline{4}$ 36'39	0°24'31				
minimum elong	-4312 Dec 11 j 05:28	18° $\overline{27}$ ' $\overline{4}$ 36'39	0°24'23	conjunction	-4305 Mar 04 j 20:47	10° $\overline{27}$ ' $\overline{4}$ 28'06	-2°-16'-2
max. Earth dist.	-4312 Dec 10 j 15:05	18° $\overline{27}$ ' $\overline{4}$ 32'13	10.62690 AU	minimum elong	-4305 Mar 04 j 20:45	10° $\overline{27}$ ' $\overline{4}$ 28'05	2°16'13
morning rise	-4312 Dec 28 j 05:38	20° $\overline{27}$ ' $\overline{4}$ 41'49		max. Earth dist.	-4305 Mar 05 j 06:14	10° $\overline{27}$ ' $\overline{4}$ 31'15	9.87340 AU
retrograde	-4311 Apr 12 j 12:31	28° $\overline{27}$ ' $\overline{4}$ 23'44		morning rise	-4305 Mar 22 j 20:21	12° $\overline{27}$ ' $\overline{4}$ 50'56	
opposition	-4311 Jun 21 j 21:45	24° $\overline{27}$ ' $\overline{4}$ 58'53	0°10'33		-4305 Apr 08 j 18:55	15° $\overline{27}$ '	
min. Earth dist.	-4311 Jun 22 j 08:39	24° $\overline{27}$ ' $\overline{4}$ 56'47	8.54820 AU	retrograde	-4305 Jul 08 j 18:16	21° $\overline{27}$ ' $\overline{4}$ 30'48	
direct	-4311 Aug 29 j 04:41	21° $\overline{27}$ ' $\overline{4}$ 38'11		opposition	-4305 Sep 14 j 00:34	17° $\overline{27}$ ' $\overline{4}$ 58'30	-2°-56'-23
desc. node	-4311 Oct 01 j 13:31	22° $\overline{27}$ ' $\overline{4}$ 37'04		min. Earth dist.	-4305 Sep 13 j 15:37	18° $\overline{27}$ ' $\overline{4}$ 00'22	7.85480 AU
evening set	-4311 Dec 06 j 23:06	29° $\overline{27}$ ' $\overline{4}$ 03'44			-4305 Oct 26 j 19:22	15° $\overline{27}$ ' $\overline{4}$	
	-4311 Dec 14 j 12:56	0° $\overline{27}$ ' $\overline{4}$		direct	-4305 Nov 18 j 18:52	14° $\overline{27}$ ' $\overline{4}$ 29'44	
					-4305 Dec 11 j 15:43	15° $\overline{27}$ '	
conjunction	-4311 Dec 23 j 23:12	1° $\overline{27}$ ' $\overline{4}$ 10'49	0°-7'-5	evening set	-4304 Mar 01 j 14:49	22° $\overline{27}$ ' $\overline{4}$ 53'24	
minimum elong	-4311 Dec 23 j 23:12	1° $\overline{27}$ ' $\overline{4}$ 10'49	0°07'16				
behind sun begin	-4311 Dec 23 j 16:40	1° $\overline{27}$ ' $\overline{4}$ 08'47		conjunction	-4304 Mar 19 j 13:41	25° $\overline{27}$ ' $\overline{4}$ 16'19	-2°-22'-41
behind sun end	-4311 Dec 24 j 05:43	1° $\overline{27}$ ' $\overline{4}$ 12'50		minimum elong	-4304 Mar 19 j 13:41	25° $\overline{27}$ ' $\overline{4}$ 16'19	2°22'49
max. Earth dist.	-4311 Dec 23 j 11:09	1° $\overline{27}$ ' $\overline{4}$ 07'03	10.47111 AU	max. Earth dist.	-4304 Mar 20 j 03:25	25° $\overline{27}$ ' $\overline{4}$ 20'54	9.84173 AU
morning rise	-4310 Jan 10 j 03:57	3° $\overline{27}$ ' $\overline{4}$ 19'26		morning rise	-4304 Apr 06 j 15:19	27° $\overline{27}$ ' $\overline{4}$ 40'08	
retrograde	-4310 Apr 26 j 09:51	11° $\overline{27}$ ' $\overline{4}$ 13'58			-4304 Apr 25 j 00:19	0° $\overline{27}$ '	
opposition	-4310 Jul 05 j 08:17	7° $\overline{27}$ ' $\overline{4}$ 47'16	0°-29'-9	retrograde	-4304 Jul 22 j 23:32	6° $\overline{27}$ ' $\overline{4}$ 19'12	
min. Earth dist.	-4310 Jul 05 j 16:25	7° $\overline{27}$ ' $\overline{4}$ 45'40	8.39211 AU	opposition	-4304 Sep 27 j 19:28	2° $\overline{27}$ ' $\overline{4}$ 47'08	-2°-58'-50
direct	-4310 Sep 10 j 22:17	4° $\overline{27}$ ' $\overline{4}$ 25'18		min. Earth dist.	-4304 Sep 27 j 07:45	2° $\overline{27}$ ' $\overline{4}$ 49'36	7.84312 AU
evening set	-4310 Dec 20 j 01:47	12° $\overline{27}$ ' $\overline{4}$ 01'01			-4304 Nov 05 j 07:15	30° $\overline{27}$ ' $\overline{4}$	
				direct	-4304 Dec 02 j 16:25	29° $\overline{27}$ ' $\overline{4}$ 17'28	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 9

Attention, astronomical year style is used: The year -4304 in astronomical counting style is the year 4305 BCE in historical counting style.

	-4304 Dec 29 j 23:00	0°♄		retrograde	-4298 Oct 14 j 01:51	0°♄32'38	
evening set	-4303 Mar 17 j 08:19	7°♄44'25			-4298 Nov 07 j 17:44	30°♄8	
				opposition	-4298 Dec 20 j 02:47	27°♄09'53	0°-4'-7
conjunction	-4303 Apr 04 j 09:47	10°♄07'50	-2°-19'-56	min. Earth dist.	-4298 Dec 19 j 15:18	27°♄12'11	8.45992 AU
minimum elong	-4303 Apr 04 j 09:49	10°♄07'51	2°20'02	asc. node	-4297 Jan 28 j 07:05	24°♄27'56	
max. Earth dist.	-4303 Apr 05 j 02:40	10°♄13'27	9.85006 AU	direct	-4297 Feb 27 j 11:02	23°♄42'17	
morning rise	-4303 Apr 22 j 12:47	12°♄31'44			-4297 May 31 j 17:57	0°♄	
retrograde	-4303 Aug 06 j 23:58	21°♄05'41		evening set	-4297 Jun 13 j 12:26	1°♄30'25	
opposition	-4303 Oct 12 j 12:34	17°♄34'21	-2°-49'-22				
min. Earth dist.	-4303 Oct 11 j 23:11	17°♄37'10	7.87114 AU	conjunction	-4297 Jul 01 j 06:37	3°♄40'38	0°13'02
direct	-4303 Dec 17 j 16:33	14°♄04'07		minimum elong	-4297 Jul 01 j 06:36	3°♄40'38	0°13'12
evening set	-4302 Apr 02 j 01:19	22°♄30'49		behind sun begin	-4297 Jul 01 j 02:26	3°♄39'22	
				behind sun end	-4297 Jul 01 j 10:45	3°♄41'54	
conjunction	-4302 Apr 20 j 04:36	24°♄53'52	-2°-8'-1	max. Earth dist.	-4297 Jul 01 j 19:25	3°♄44'34	10.53953 AU
minimum elong	-4302 Apr 20 j 04:39	24°♄53'53	2°08'03	morning rise	-4297 Jul 18 j 19:33	5°♄49'16	
max. Earth dist.	-4302 Apr 20 j 23:18	25°♄00'03	9.89787 AU	retrograde	-4297 Oct 26 j 15:18	13°♄10'17	
morning rise	-4302 May 08 j 08:05	27°♄16'55		opposition	-4296 Jan 02 j 00:22	9°♄49'25	0°34'53
	-4302 May 30 j 03:38	0°♄		min. Earth dist.	-4296 Jan 01 j 15:38	9°♄51'08	8.61622 AU
retrograde	-4302 Aug 21 j 16:30	5°♄41'58		direct	-4296 Mar 11 j 23:03	6°♄23'03	
min. Earth dist.	-4302 Oct 26 j 11:17	2°♄14'49	7.93686 AU	evening set	-4296 Jun 25 j 17:27	14°♄00'58	
opposition	-4302 Oct 27 j 01:24	2°♄11'51	-2°-28'-56				
	-4302 Nov 24 j 12:34	30°♄		conjunction	-4296 Jul 13 j 06:36	16°♄07'41	0°43'43
direct	-4301 Jan 01 j 16:15	28°♄41'26		minimum elong	-4296 Jul 13 j 06:34	16°♄07'41	0°43'54
	-4301 Feb 08 j 15:44	0°♄		max. Earth dist.	-4296 Jul 13 j 15:41	16°♄10'26	10.69347 AU
evening set	-4301 Apr 17 j 13:55	7°♄04'34		morning rise	-4296 Jul 30 j 14:21	18°♄12'48	
				retrograde	-4296 Nov 06 j 17:45	25°♄23'15	
conjunction	-4301 May 05 j 17:53	9°♄26'20	-1°-48'-4	opposition	-4295 Jan 13 j 14:15	22°♄04'03	1°10'56
minimum elong	-4301 May 05 j 17:58	9°♄26'22	1°48'03	min. Earth dist.	-4295 Jan 13 j 08:59	22°♄05'04	8.76645 AU
max. Earth dist.	-4301 May 06 j 13:06	9°♄32'37	9.98165 AU	direct	-4295 Mar 25 j 03:23	18°♄38'57	
morning rise	-4301 May 23 j 20:45	11°♄47'38		evening set	-4295 Jul 08 j 10:45	26°♄07'17	
retrograde	-4301 Sep 04 j 23:23	20°♄01'00					
opposition	-4301 Nov 10 j 07:53	16°♄32'30	-1°-59'-32	conjunction	-4295 Jul 25 j 18:30	28°♄10'40	1°11'35
min. Earth dist.	-4301 Nov 09 j 17:43	16°♄35'26	8.03576 AU	minimum elong	-4295 Jul 25 j 18:28	28°♄10'39	1°11'46
direct	-4300 Jan 16 j 13:07	13°♄02'17		max. Earth dist.	-4295 Jul 25 j 22:39	28°♄11'54	10.83730 AU
evening set	-4300 May 01 j 18:31	21°♄19'01			-4295 Aug 10 j 02:23	0°♄	
				morning rise	-4295 Aug 11 j 21:06	0°♄12'31	
conjunction	-4300 May 19 j 21:55	23°♄38'41	-1°-21'-52	retrograde	-4295 Nov 18 j 13:14	7°♄14'14	
minimum elong	-4300 May 19 j 21:59	23°♄38'42	1°21'49	opposition	-4294 Jan 25 j 21:11	3°♄56'26	1°42'44
max. Earth dist.	-4300 May 20 j 16:29	23°♄44'41	10.09562 AU	min. Earth dist.	-4294 Jan 25 j 18:59	3°♄56'51	8.90324 AU
morning rise	-4300 Jun 06 j 22:56	25°♄57'28		direct	-4294 Apr 06 j 23:12	0°♄32'38	
	-4300 Jul 11 j 10:29	0°♄		evening set	-4294 Jul 20 j 17:20	7°♄52'24	
retrograde	-4300 Sep 17 j 19:18	3°♄57'36					
opposition	-4300 Nov 23 j 06:44	0°♄30'56	-1°-23'-45	conjunction	-4294 Aug 06 j 19:49	9°♄52'48	1°35'42
min. Earth dist.	-4300 Nov 22 j 16:49	0°♄33'47	8.16130 AU	minimum elong	-4294 Aug 06 j 19:46	9°♄52'47	1°35'54
	-4300 Nov 29 j 14:16	30°♄		max. Earth dist.	-4294 Aug 06 j 19:50	9°♄52'48	10.96437 AU
direct	-4299 Jan 30 j 04:40	27°♄01'18		morning rise	-4294 Aug 23 j 17:25	11°♄51'45	
	-4299 Mar 31 j 03:22	0°♄		retrograde	-4294 Nov 30 j 04:08	18°♄46'45	
evening set	-4299 May 16 j 12:30	5°♄09'31		opposition	-4293 Feb 06 j 22:51	15°♄30'05	2°09'26
				min. Earth dist.	-4293 Feb 06 j 23:21	15°♄30'00	9.02064 AU
conjunction	-4299 Jun 03 j 14:02	7°♄26'25	0°-51'-34	direct	-4293 Apr 19 j 09:40	12°♄07'35	
minimum elong	-4299 Jun 03 j 14:05	7°♄26'26	0°51'28	evening set	-4293 Aug 01 j 14:29	19°♄19'55	
max. Earth dist.	-4299 Jun 04 j 07:14	7°♄31'53	10.23227 AU				
morning rise	-4299 Jun 21 j 12:03	9°♄42'08		conjunction	-4293 Aug 18 j 12:08	21°♄17'47	1°55'27
	-4299 Aug 08 j 22:28	15°♄		minimum elong	-4293 Aug 18 j 12:05	21°♄17'46	1°55'38
retrograde	-4299 Oct 01 j 03:41	17°♄28'33		max. Earth dist.	-4293 Aug 18 j 09:08	21°♄16'54	11.06989 AU
	-4299 Nov 25 j 03:28	15°♄		morning rise	-4293 Sep 04 j 05:06	23°♄14'20	
opposition	-4299 Dec 06 j 21:06	14°♄03'50	0°-44'-25		-4293 Dec 02 j 03:05	0°♄	
min. Earth dist.	-4299 Dec 06 j 07:51	14°♄06'31	8.30552 AU	retrograde	-4293 Dec 11 j 15:27	0°♄04'37	
direct	-4298 Feb 13 j 12:37	10°♄35'07			-4293 Dec 21 j 04:45	30°♄	
	-4298 Apr 29 j 19:35	15°♄		opposition	-4292 Feb 18 j 20:24	26°♄48'45	2°30'29
evening set	-4298 May 30 j 18:45	18°♄33'33		min. Earth dist.	-4292 Feb 18 j 23:56	26°♄48'06	9.11485 AU
				direct	-4292 Apr 30 j 13:32	23°♄27'24	
conjunction	-4298 Jun 17 j 17:10	20°♄47'13	0°-19'-18		-4292 Aug 07 j 05:02	0°♄	
minimum elong	-4298 Jun 17 j 17:11	20°♄47'14	0°19'10	evening set	-4292 Aug 12 j 04:04	0°♄33'36	
max. Earth dist.	-4298 Jun 18 j 08:33	20°♄52'02	10.38309 AU				
morning rise	-4298 Jul 05 j 11:01	22°♄59'28		conjunction	-4292 Aug 28 j 21:22	2°♄29'25	2°10'23
	-4298 Sep 19 j 15:20	0°♄		minimum elong	-4292 Aug 28 j 21:20	2°♄29'24	2°10'34

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 10

Attention, astronomical year style is used: The year -4292 in astronomical counting style is the year 4293 BCE in historical counting style.

max. Earth dist.	-4292 Aug 28 j 15:04	2°♂27'35	11.15093 AU	minimum elong	-4286 Nov 02 j 01:06	8°♂25'35	1°51'33
morning rise	-4292 Sep 14 j 10:33	4°♂24'07		morning rise	-4286 Nov 18 j 12:23	10°♂21'27	
retrograde	-4292 Dec 22 j 00:13	11°♂11'27		retrograde	-4285 Feb 28 j 11:42	17°♂27'31	
opposition	-4291 Mar 01 j 14:54	7°♂56'05	2°45'30	opposition	-4285 May 10 j 13:37	14°♂08'03	2°04'19
min. Earth dist.	-4291 Mar 01 j 22:05	7°♂54'45	9.18341 AU	min. Earth dist.	-4285 May 11 j 04:38	14°♂05'17	9.00771 AU
direct	-4291 May 12 j 10:34	4°♂35'43		direct	-4285 Jul 19 j 23:46	10°♂49'25	
evening set	-4291 Aug 23 j 11:33	11°♂37'03		evening set	-4285 Oct 27 j 21:39	17°♂50'38	
conjunction	-4291 Sep 09 j 01:10	13°♂31'22	2°20'16	conjunction	-4285 Nov 13 j 10:03	19°♂48'02	1°30'59
minimum elong	-4291 Sep 09 j 01:09	13°♂31'21	2°20'25	minimum elong	-4285 Nov 13 j 10:06	19°♂48'02	1°30'55
max. Earth dist.	-4291 Sep 08 j 14:54	13°♂28'23	11.20545 AU	max. Earth dist.	-4285 Nov 12 j 17:28	19°♂43'05	10.95105 AU
	-4291 Sep 21 j 20:33	15°♂		morning rise	-4285 Nov 30 j 00:19	21°♂46'06	
morning rise	-4291 Sep 25 j 11:36	15°♂24'47		retrograde	-4284 Mar 11 j 23:02	29°♂01'00	
retrograde	-4290 Jan 02 j 06:09	22°♂10'59		opposition	-4284 May 21 j 22:00	25°♂40'02	1°36'40
opposition	-4290 Mar 13 j 07:47	18°♂55'42	2°54'18	min. Earth dist.	-4284 May 22 j 12:02	25°♂37'25	8.89015 AU
min. Earth dist.	-4290 Mar 13 j 17:39	18°♂53'54	9.22442 AU	direct	-4284 Jul 30 j 17:56	22°♂21'00	
direct	-4290 May 24 j 04:21	15°♂36'07		evening set	-4284 Nov 07 j 11:16	29°♂27'29	
evening set	-4290 Sep 03 j 14:18	22°♂33'54			-4284 Nov 12 j 00:41	0°♂	
conjunction	-4290 Sep 20 j 01:15	24°♂27'16	2°24'56	max. Earth dist.	-4284 Nov 23 j 10:02	1°♂22'19	10.82494 AU
minimum elong	-4290 Sep 20 j 01:15	24°♂27'16	2°25'04	conjunction	-4284 Nov 24 j 02:23	1°♂27'15	1°06'13
max. Earth dist.	-4290 Sep 19 j 12:36	24°♂23'36	11.23200 AU	minimum elong	-4284 Nov 24 j 02:25	1°♂27'16	1°06'07
morning rise	-4290 Oct 06 j 09:49	26°♂19'59		morning rise	-4284 Dec 10 j 20:24	3°♂28'00	
	-4290 Nov 10 j 18:38	0°♂		retrograde	-4283 Mar 24 j 17:12	10°♂53'09	
retrograde	-4289 Jan 13 j 15:10	3°♂06'49		opposition	-4283 Jun 03 j 13:02	7°♂30'34	1°04'09
	-4289 Mar 23 j 00:10	30°♂		min. Earth dist.	-4283 Jun 04 j 02:11	7°♂28'05	8.75543 AU
opposition	-4289 Mar 25 j 00:12	29°♂51'15	2°56'46	direct	-4283 Aug 11 j 17:24	4°♂10'54	
min. Earth dist.	-4289 Mar 25 j 11:27	29°♂49'12	9.23677 AU	evening set	-4283 Nov 19 j 09:28	11°♂24'15	
direct	-4289 Jun 04 j 19:57	26°♂32'17		conjunction	-4283 Dec 06 j 03:52	13°♂26'48	0°37'57
	-4289 Aug 12 j 11:24	0°♂		minimum elong	-4283 Dec 06 j 03:54	13°♂26'49	0°37'50
evening set	-4289 Sep 14 j 14:13	3°♂27'50		max. Earth dist.	-4283 Dec 05 j 12:25	13°♂22'04	10.68419 AU
conjunction	-4289 Sep 30 j 23:36	5°♂20'51	2°24'20		-4283 Dec 18 j 20:46	15°♂	
minimum elong	-4289 Sep 30 j 23:37	5°♂20'51	2°24'26	morning rise	-4283 Dec 23 j 02:12	15°♂30'37	
max. Earth dist.	-4289 Sep 30 j 09:52	5°♂16'53	11.22989 AU	retrograde	-4282 Apr 06 j 22:09	23°♂07'17	
morning rise	-4289 Oct 17 j 07:11	7°♂13'28		opposition	-4282 Jun 16 j 11:47	19°♂42'59	0°27'41
retrograde	-4288 Jan 25 j 01:28	14°♂02'36		min. Earth dist.	-4282 Jun 16 j 23:40	19°♂40'43	8.60905 AU
opposition	-4288 Apr 04 j 17:18	10°♂46'27	2°52'54	direct	-4282 Aug 24 j 01:08	16°♂22'30	
min. Earth dist.	-4288 Apr 05 j 06:06	10°♂44'07	9.22026 AU	evening set	-4282 Dec 01 j 18:01	23°♂44'08	
direct	-4288 Jun 15 j 07:05	7°♂27'53		conjunction	-4282 Dec 18 j 16:17	25°♂49'48	0°07'11
evening set	-4288 Sep 24 j 13:03	14°♂22'36		minimum elong	-4282 Dec 18 j 16:18	25°♂49'49	0°07'02
conjunction	-4288 Oct 10 j 21:43	16°♂15'52	2°18'30	behind sun begin	-4282 Dec 18 j 09:45	25°♂47'47	
minimum elong	-4288 Oct 10 j 21:45	16°♂15'52	2°18'33	behind sun end	-4282 Dec 18 j 22:51	25°♂51'50	
max. Earth dist.	-4288 Oct 10 j 06:00	16°♂11'18	11.19933 AU	max. Earth dist.	-4282 Dec 18 j 03:35	25°♂45'51	10.53458 AU
morning rise	-4288 Oct 27 j 05:34	18°♂08'59		morning rise	-4281 Jan 04 j 19:08	27°♂56'57	
retrograde	-4287 Feb 04 j 15:57	25°♂02'05			-4281 Jan 22 j 02:59	0°♂	
opposition	-4287 Apr 16 j 12:27	21°♂45'06	2°42'46	desc. node	-4281 Mar 13 j 07:37	4°♂33'38	
min. Earth dist.	-4287 Apr 17 j 03:05	21°♂42'26	9.17546 AU	retrograde	-4281 Apr 20 j 14:13	5°♂45'59	
direct	-4287 Jun 26 j 19:05	18°♂26'42		opposition	-4281 Jun 29 j 18:39	2°♂19'59	0°-11'-24
evening set	-4287 Oct 05 j 12:40	25°♂22'04		min. Earth dist.	-4281 Jun 30 j 03:58	2°♂18'10	8.45739 AU
conjunction	-4287 Oct 21 j 21:31	27°♂16'09	2°07'30		-4281 Aug 01 j 23:16	30°♂	
minimum elong	-4287 Oct 21 j 21:33	27°♂16'09	2°07'32	direct	-4281 Sep 05 j 16:04	28°♂58'30	
max. Earth dist.	-4287 Oct 21 j 04:02	27°♂11'02	11.14132 AU	evening set	-4281 Oct 09 j 14:24	0°♂	
morning rise	-4287 Nov 07 j 06:42	29°♂10'22			-4281 Dec 14 j 14:55	6°♂29'46	
	-4287 Nov 14 j 14:03	0°♂		conjunction	-4281 Dec 31 j 17:19	8°♂38'43	0°-24'-58
retrograde	-4286 Feb 16 j 09:36	6°♂09'06		minimum elong	-4281 Dec 31 j 17:18	8°♂38'43	0°25'09
opposition	-4286 Apr 28 j 10:50	2°♂51'00	2°26'30	max. Earth dist.	-4281 Dec 31 j 08:15	8°♂35'52	10.38289 AU
min. Earth dist.	-4286 Apr 29 j 02:27	2°♂48'08	9.10384 AU	morning rise	-4280 Jan 18 j 00:36	10°♂49'19	
	-4286 Jun 14 j 07:32	30°♂		retrograde	-4280 May 03 j 16:10	18°♂51'01	
direct	-4286 Jul 08 j 07:31	29°♂32'35		opposition	-4280 Jul 12 j 09:43	15°♂23'22	0°-51'-22
	-4286 Aug 01 j 00:25	0°♂		min. Earth dist.	-4280 Jul 12 j 15:35	15°♂22'13	8.30779 AU
evening set	-4286 Oct 16 j 14:53	6°♂30'07		direct	-4280 Sep 17 j 16:38	12°♂00'46	
max. Earth dist.	-4286 Nov 01 j 07:44	8°♂20'28	11.05770 AU	evening set	-4280 Dec 27 j 01:14	19°♂42'38	
conjunction	-4286 Nov 02 j 01:03	8°♂25'34	1°51'34	conjunction	-4279 Jan 13 j 07:42	21°♂54'54	0°-56'-44



## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 11

Attention, astronomical year style is used: The year -4279 in astronomical counting style is the year 4280 BCE in historical counting style.

minimum elong	-4279 Jan 13 j 07:40	21° $\text{X}$ 54'53	0°56'56	min. Earth dist.	-4274 Oct 05 j 23:37	11° $\text{X}$ 21'12	7.86720 AU
max. Earth dist.	-4279 Jan 13 j 02:37	21° $\text{X}$ 53'16	10.23689 AU	direct	-4274 Dec 11 j 12:02	7° $\text{X}$ 49'17	
morning rise	-4279 Jan 30 j 19:18	24° $\text{X}$ 08'53		evening set	-4273 Mar 26 j 13:12	16° $\text{X}$ 16'09	
	-4279 Mar 25 j 12:51	0° $\text{Z}$					
retrograde	-4279 May 18 j 04:48	2° $\text{Z}$ 22'50		conjunction	-4273 Apr 13 j 15:47	18° $\text{X}$ 39'22	-2°-14'-11
	-4279 Jul 12 j 08:30	30° $\text{R}$ $\text{X}$		minimum elong	-4273 Apr 13 j 15:50	18° $\text{X}$ 39'23	2°14'15
opposition	-4279 Jul 26 j 09:13	28° $\text{X}$ 53'44	-1°-29'-59	max. Earth dist.	-4273 Apr 14 j 08:33	18° $\text{X}$ 44'56	9.88337 AU
min. Earth dist.	-4279 Jul 26 j 11:13	28° $\text{X}$ 53'20	8.16830 AU	morning rise	-4273 May 01 j 19:11	21° $\text{X}$ 02'47	
direct	-4279 Oct 01 j 02:13	25° $\text{X}$ 29'55		retrograde	-4273 Aug 15 j 15:43	29° $\text{X}$ 32'01	
	-4279 Dec 12 j 23:22	0° $\text{Z}$		opposition	-4273 Oct 21 j 02:24	26° $\text{X}$ 01'50	-2°-38'-57
evening set	-4278 Jan 10 j 01:21	3° $\text{Z}$ 22'45		min. Earth dist.	-4273 Oct 20 j 12:58	26° $\text{X}$ 04'39	7.91256 AU
				direct	-4273 Dec 26 j 12:00	22° $\text{X}$ 31'57	
conjunction	-4278 Jan 27 j 11:47	5° $\text{Z}$ 38'10	-1°-26'-15		-4272 Apr 02 j 17:52	0° $\text{Y}$	
minimum elong	-4278 Jan 27 j 11:44	5° $\text{Z}$ 38'09	1°26'27	evening set	-4272 Apr 10 j 04:22	0° $\text{Y}$ 56'55	
max. Earth dist.	-4278 Jan 27 j 10:36	5° $\text{Z}$ 37'47	10.10489 AU				
morning rise	-4278 Feb 14 j 03:28	7° $\text{Z}$ 55'19		conjunction	-4272 Apr 28 j 08:16	3° $\text{Y}$ 19'19	-1°-57'-35
retrograde	-4278 Jun 02 j 02:12	16° $\text{Z}$ 20'09		minimum elong	-4272 Apr 28 j 08:20	3° $\text{Y}$ 19'21	1°57'36
opposition	-4278 Aug 09 j 16:14	12° $\text{Z}$ 49'51	-2°-4'-38	max. Earth dist.	-4272 Apr 29 j 02:51	3° $\text{Y}$ 25'26	9.94739 AU
min. Earth dist.	-4278 Aug 09 j 14:47	12° $\text{Z}$ 50'09	8.04714 AU	morning rise	-4272 May 16 j 11:28	5° $\text{Y}$ 41'26	
direct	-4278 Oct 14 j 21:10	9° $\text{Z}$ 24'43		retrograde	-4272 Aug 29 j 04:14	14° $\text{Y}$ 00'23	
evening set	-4277 Jan 24 j 15:06	17° $\text{Z}$ 28'16		opposition	-4272 Nov 03 j 12:13	10° $\text{Y}$ 31'29	-2°-13'-13
				min. Earth dist.	-4272 Nov 02 j 21:56	10° $\text{Y}$ 34'27	7.99296 AU
conjunction	-4277 Feb 11 j 05:21	19° $\text{Z}$ 46'30	-1°-51'-24	direct	-4271 Jan 09 j 10:02	7° $\text{Y}$ 01'29	
minimum elong	-4277 Feb 11 j 05:18	19° $\text{Z}$ 46'29	1°51'36	evening set	-4271 Apr 25 j 13:11	15° $\text{Y}$ 21'24	
max. Earth dist.	-4277 Feb 11 j 08:16	19° $\text{Z}$ 47'27	9.99496 AU				
morning rise	-4277 Mar 01 j 00:41	22° $\text{Z}$ 06'22		conjunction	-4271 May 13 j 17:10	17° $\text{Y}$ 42'08	-1°-33'-53
	-4277 May 21 j 01:07	0° $\approx$		minimum elong	-4271 May 13 j 17:14	17° $\text{Y}$ 42'09	1°33'51
retrograde	-4277 Jun 17 j 05:44	0° $\approx$ 39'35		max. Earth dist.	-4271 May 14 j 12:12	17° $\text{Y}$ 48'19	10.04437 AU
	-4277 Jul 14 j 10:31	30° $\text{R}$ $\text{Z}$		morning rise	-4271 May 31 j 19:03	20° $\text{Y}$ 02'07	
opposition	-4277 Aug 24 j 05:11	27° $\text{Z}$ 08'26	-2°-32'-35	retrograde	-4271 Sep 12 j 06:18	28° $\text{Y}$ 08'30	
min. Earth dist.	-4277 Aug 24 j 00:43	27° $\text{Z}$ 09'22	7.95176 AU	opposition	-4271 Nov 17 j 14:50	24° $\text{Y}$ 41'10	-1°-39'-55
direct	-4277 Oct 29 j 02:03	23° $\text{Z}$ 41'59		min. Earth dist.	-4271 Nov 17 j 00:55	24° $\text{Y}$ 44'02	8.10323 AU
	-4276 Jan 24 j 13:59	0° $\approx$		direct	-4270 Jan 24 j 04:25	21° $\text{Y}$ 11'24	
evening set	-4276 Feb 08 j 16:43	1° $\approx$ 55'05		evening set	-4270 May 10 j 12:37	29° $\text{Y}$ 23'47	
					-4270 May 15 j 07:31	0° $\text{B}$	
conjunction	-4276 Feb 26 j 10:35	4° $\approx$ 15'36	-2°-10'-9				
minimum elong	-4276 Feb 26 j 10:33	4° $\approx$ 15'35	2°10'19	conjunction	-4270 May 28 j 15:18	1° $\text{B}$ 42'03	-1°-5'-7
max. Earth dist.	-4276 Feb 26 j 17:38	4° $\approx$ 17'56	9.91404 AU	minimum elong	-4270 May 28 j 15:21	1° $\text{B}$ 42'04	1°05'03
morning rise	-4276 Mar 15 j 08:59	6° $\approx$ 37'33		max. Earth dist.	-4270 May 29 j 09:16	1° $\text{B}$ 47'48	10.16769 AU
	-4276 Jun 14 j 12:58	15° $\approx$		morning rise	-4270 Jun 15 j 14:41	3° $\text{B}$ 59'15	
retrograde	-4276 Jul 01 j 11:52	15° $\approx$ 15'47		retrograde	-4270 Sep 25 j 19:50	11° $\text{B}$ 52'01	
	-4276 Jul 18 j 09:02	15° $\text{R}$ $\approx$		opposition	-4270 Dec 01 j 09:22	8° $\text{B}$ 26'27	-1°-1'-49
opposition	-4276 Sep 06 j 22:19	11° $\approx$ 44'10	-2°-51'-19	min. Earth dist.	-4270 Nov 30 j 20:54	8° $\text{B}$ 28'59	8.23606 AU
min. Earth dist.	-4276 Sep 06 j 15:09	11° $\approx$ 45'40	7.88798 AU	direct	-4269 Feb 07 j 16:18	4° $\text{B}$ 57'14	
direct	-4276 Nov 11 j 16:26	8° $\approx$ 16'28		evening set	-4269 May 25 j 00:34	13° $\text{B}$ 00'23	
	-4275 Feb 10 j 12:16	15° $\approx$			-4269 Jun 09 j 22:56	15° $\text{B}$	
evening set	-4275 Feb 23 j 03:10	16° $\approx$ 37'00					
				conjunction	-4269 Jun 12 j 00:30	15° $\text{B}$ 15'37	0°-33'-28
conjunction	-4275 Mar 13 j 00:24	18° $\approx$ 59'10	-2°-20'-45	minimum elong	-4269 Jun 12 j 00:32	15° $\text{B}$ 15'38	0°33'21
minimum elong	-4275 Mar 13 j 00:23	18° $\approx$ 59'10	2°20'54	max. Earth dist.	-4269 Jun 12 j 15:56	15° $\text{B}$ 20'29	10.30928 AU
max. Earth dist.	-4275 Mar 13 j 11:14	19° $\approx$ 02'47	9.86695 AU	morning rise	-4269 Jun 29 j 20:18	17° $\text{B}$ 29'31	
morning rise	-4275 Mar 31 j 01:13	21° $\approx$ 22'27		retrograde	-4269 Oct 08 j 22:05	25° $\text{B}$ 08'46	
	-4275 Jul 11 j 02:21	0° $\text{X}$		opposition	-4269 Dec 14 j 19:11	21° $\text{B}$ 45'00	0°-21'-39
retrograde	-4275 Jul 16 j 17:01	0° $\text{X}$ 01'46		min. Earth dist.	-4269 Dec 14 j 08:23	21° $\text{B}$ 47'10	8.38329 AU
	-4275 Jul 22 j 07:41	30° $\text{R}$ $\approx$		direct	-4268 Feb 21 j 19:40	18° $\text{B}$ 16'37	
opposition	-4275 Sep 21 j 17:12	26° $\approx$ 30'09	-2°-58'-58	evening set	-4268 Jun 06 j 23:56	26° $\text{B}$ 09'40	
min. Earth dist.	-4275 Sep 21 j 07:42	26° $\approx$ 32'08	7.85918 AU				
direct	-4275 Nov 26 j 12:39	23° $\approx$ 01'25		conjunction	-4268 Jun 24 j 20:00	28° $\text{B}$ 21'31	0°00'-59
	-4274 Feb 27 j 13:17	0° $\text{X}$		minimum elong	-4268 Jun 24 j 20:01	28° $\text{B}$ 21'32	0°00'51
evening set	-4274 Mar 10 j 19:20	1° $\text{X}$ 26'43		behind sun begin	-4268 Jun 24 j 12:46	28° $\text{B}$ 19'18	
				behind sun end	-4268 Jun 25 j 03:15	28° $\text{B}$ 23'45	
conjunction	-4274 Mar 28 j 19:34	3° $\text{X}$ 49'49	-2°-22'-9	max. Earth dist.	-4268 Jun 25 j 08:17	28° $\text{B}$ 25'19	10.46080 AU
minimum elong	-4274 Mar 28 j 19:35	3° $\text{X}$ 49'49	2°22'16	asc. node	-4268 Jul 06 j 06:15	29° $\text{B}$ 46'20	
max. Earth dist.	-4274 Mar 29 j 09:38	3° $\text{X}$ 54'30	9.85627 AU		-4268 Jul 08 j 02:48	0° $\text{II}$	
morning rise	-4274 Apr 15 j 22:07	6° $\text{X}$ 13'36		morning rise	-4268 Jul 12 j 11:24	0° $\text{II}$ 31'53	
retrograde	-4274 Jul 31 j 19:16	14° $\text{X}$ 49'52		retrograde	-4268 Oct 20 j 14:30	7° $\text{II}$ 58'27	
opposition	-4274 Oct 06 j 11:17	11° $\text{X}$ 18'45	-2°-54'-42	opposition	-4268 Dec 26 j 20:16	4° $\text{II}$ 36'27	0°18'09

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 12

Attention, astronomical year style is used: The year -4268 in astronomical counting style is the year 4269 BCE in historical counting style.

min. Earth dist.	-4268 Dec 26 j 11:08	4° $\Pi$ 38'14	8.53663 AU	opposition	-4261 Mar 08 j 14:01	14° $\Omega$ 21'36	2°51'10
direct	-4267 Mar 06 j 13:09	1° $\Pi$ 09'06		min. Earth dist.	-4261 Mar 08 j 20:32	14° $\Omega$ 20'24	9.21324 AU
evening set	-4267 Jun 20 j 10:27	8° $\Pi$ 51'51		direct	-4261 May 19 j 11:14	11° $\Omega$ 01'37	
					-4261 Aug 01 j 19:19	15° $\Omega$	
conjunction	-4267 Jul 08 j 01:56	11° $\Pi$ 00'15	0°30'37	evening set	-4261 Aug 30 j 02:50	18° $\Omega$ 00'20	
minimum elong	-4267 Jul 08 j 01:55	11° $\Pi$ 00'14	0°30'47				
max. Earth dist.	-4267 Jul 08 j 11:16	11° $\Pi$ 03'06	10.61409 AU	conjunction	-4261 Sep 15 j 14:57	19° $\Omega$ 53'57	2°23'30
morning rise	-4267 Jul 25 j 12:17	13° $\Pi$ 07'03		minimum elong	-4261 Sep 15 j 14:57	19° $\Omega$ 53'57	2°23'38
retrograde	-4267 Nov 01 j 20:47	20° $\Pi$ 22'20		max. Earth dist.	-4261 Sep 15 j 05:41	19° $\Omega$ 51'16	11.23050 AU
opposition	-4266 Jan 08 j 13:18	17° $\Pi$ 01'57	0°55'41	morning rise	-4261 Oct 02 j 00:05	21° $\Omega$ 46'47	
min. Earth dist.	-4266 Jan 08 j 06:07	17° $\Pi$ 03'21	8.68814 AU	retrograde	-4260 Jan 09 j 00:27	28° $\Omega$ 32'33	
direct	-4266 Mar 19 j 22:06	13° $\Pi$ 35'49		opposition	-4260 Mar 19 j 05:59	25° $\Omega$ 17'12	2°56'23
evening set	-4266 Jul 03 j 08:49	21° $\Pi$ 08'40		min. Earth dist.	-4260 Mar 19 j 15:28	25° $\Omega$ 15'29	9.24480 AU
				direct	-4260 May 30 j 02:00	21° $\Omega$ 58'06	
conjunction	-4266 Jul 20 j 19:11	23° $\Pi$ 13'39	0°59'50	evening set	-4260 Sep 09 j 03:28	28° $\Omega$ 53'51	
minimum elong	-4266 Jul 20 j 19:09	23° $\Pi$ 13'38	1°00'02		-4260 Sep 18 j 19:07	0° $\Pi$	
max. Earth dist.	-4266 Jul 21 j 01:48	23° $\Pi$ 15'38	10.76165 AU	conjunction	-4260 Sep 25 j 13:19	0° $\Pi$ 46'49	2°25'12
morning rise	-4266 Aug 07 j 00:06	25° $\Pi$ 17'02		minimum elong	-4260 Sep 25 j 13:19	0° $\Pi$ 46'49	2°25'18
	-4266 Sep 21 j 09:03	0° $\Sigma$		max. Earth dist.	-4260 Sep 25 j 00:47	0° $\Pi$ 43'11	11.24752 AU
retrograde	-4266 Nov 13 j 20:41	2° $\Sigma$ 22'44		morning rise	-4260 Oct 11 j 21:15	2° $\Pi$ 39'14	
	-4265 Jan 08 j 14:02	30° $\Sigma$		retrograde	-4259 Jan 19 j 07:41	9° $\Pi$ 26'22	
opposition	-4265 Jan 20 j 23:12	29° $\Pi$ 03'51	1°29'29	opposition	-4259 Mar 30 j 21:57	6° $\Pi$ 10'48	2°55'16
min. Earth dist.	-4265 Jan 20 j 18:54	29° $\Pi$ 04'40	8.83089 AU	min. Earth dist.	-4259 Mar 31 j 09:48	6° $\Pi$ 08'38	9.24739 AU
direct	-4265 Apr 01 j 20:35	25° $\Pi$ 38'59		direct	-4259 Jun 10 j 14:08	2° $\Pi$ 52'22	
	-4265 Jun 18 j 01:43	0° $\Sigma$		evening set	-4259 Sep 20 j 02:11	9° $\Pi$ 46'35	
evening set	-4265 Jul 15 j 19:55	3° $\Sigma$ 02'42					
conjunction	-4265 Aug 02 j 00:55	5° $\Sigma$ 04'31	1°25'41	conjunction	-4259 Oct 06 j 10:54	11° $\Pi$ 39'27	2°21'39
minimum elong	-4265 Aug 02 j 00:52	5° $\Sigma$ 04'30	1°25'53	minimum elong	-4259 Oct 06 j 10:55	11° $\Pi$ 39'27	2°21'43
max. Earth dist.	-4265 Aug 02 j 04:11	5° $\Sigma$ 05'29	10.89722 AU	max. Earth dist.	-4259 Oct 05 j 20:42	11° $\Pi$ 35'20	11.23563 AU
morning rise	-4265 Aug 19 j 00:37	7° $\Sigma$ 04'48		morning rise	-4259 Oct 22 j 18:32	13° $\Pi$ 32'03	
retrograde	-4265 Nov 25 j 13:42	14° $\Sigma$ 02'46		retrograde	-4258 Jan 30 j 20:21	20° $\Pi$ 22'17	
opposition	-4264 Feb 02 j 03:06	10° $\Sigma$ 45'09	1°58'29	opposition	-4258 Apr 11 j 15:29	17° $\Pi$ 06'09	2°47'51
min. Earth dist.	-4264 Feb 02 j 02:12	10° $\Sigma$ 45'19	8.95918 AU	min. Earth dist.	-4258 Apr 12 j 04:16	17° $\Pi$ 03'50	9.22082 AU
direct	-4264 Apr 13 j 09:14	7° $\Sigma$ 21'36		direct	-4258 Jun 22 j 02:52	13° $\Pi$ 48'11	
evening set	-4264 Jul 26 j 20:52	14° $\Sigma$ 37'12		evening set	-4258 Oct 01 j 00:39	20° $\Pi$ 42'13	
conjunction	-4264 Aug 12 j 20:38	16° $\Sigma$ 36'13	1°47'24	conjunction	-4258 Oct 17 j 09:19	22° $\Pi$ 35'36	2°12'55
minimum elong	-4264 Aug 12 j 20:35	16° $\Sigma$ 36'12	1°47'36	minimum elong	-4258 Oct 17 j 09:21	22° $\Pi$ 35'36	2°12'58
max. Earth dist.	-4264 Aug 12 j 19:39	16° $\Sigma$ 35'55	11.01569 AU	max. Earth dist.	-4258 Oct 16 j 18:28	22° $\Pi$ 31'16	11.19499 AU
morning rise	-4264 Aug 29 j 15:41	18° $\Sigma$ 33'52		morning rise	-4258 Nov 02 j 17:34	24° $\Pi$ 28'58	
retrograde	-4264 Dec 06 j 00:01	25° $\Sigma$ 25'59			-4258 Dec 31 j 08:27	0° $\Sigma$	
opposition	-4263 Feb 13 j 01:58	22° $\Sigma$ 09'23	2°22'02	retrograde	-4257 Feb 11 j 12:49	1° $\Sigma$ 23'58	
min. Earth dist.	-4263 Feb 13 j 04:00	22° $\Sigma$ 09'00	9.06810 AU		-4257 Mar 26 j 22:50	30° $\Sigma$	
direct	-4263 Apr 25 j 17:02	18° $\Sigma$ 47'05		opposition	-4257 Apr 23 j 11:46	28° $\Pi$ 06'58	2°34'17
evening set	-4263 Aug 07 j 13:19	25° $\Sigma$ 55'49		min. Earth dist.	-4257 Apr 24 j 01:17	28° $\Pi$ 04'30	9.16572 AU
				direct	-4257 Jul 03 j 13:27	24° $\Pi$ 49'13	
conjunction	-4263 Aug 24 j 08:25	27° $\Sigma$ 52'28	2°04'28		-4257 Sep 26 j 09:20	0° $\Sigma$	
minimum elong	-4263 Aug 24 j 08:23	27° $\Sigma$ 52'28	2°04'39	evening set	-4257 Oct 12 j 01:06	1° $\Sigma$ 44'32	
max. Earth dist.	-4263 Aug 24 j 03:50	27° $\Sigma$ 51'08	11.11276 AU	conjunction	-4257 Oct 28 j 10:30	3° $\Sigma$ 38'59	1°59'11
morning rise	-4263 Sep 09 j 23:23	29° $\Sigma$ 47'57		minimum elong	-4257 Oct 28 j 10:33	3° $\Sigma$ 39'00	1°59'11
	-4263 Sep 11 j 17:44	0° $\Omega$		max. Earth dist.	-4257 Oct 27 j 18:12	3° $\Sigma$ 34'13	11.12664 AU
retrograde	-4263 Dec 17 j 09:21	6° $\Omega$ 36'09		morning rise	-4257 Nov 13 j 20:32	5° $\Sigma$ 33'44	
opposition	-4262 Feb 24 j 21:01	3° $\Omega$ 20'15	2°39'41	retrograde	-4256 Feb 23 j 10:45	12° $\Sigma$ 35'05	
min. Earth dist.	-4262 Feb 25 j 01:06	3° $\Omega$ 19'30	9.15372 AU	opposition	-4256 May 04 j 11:44	9° $\Sigma$ 16'56	2°14'45
	-4262 May 03 j 13:34	30° $\Sigma$		min. Earth dist.	-4256 May 05 j 02:37	9° $\Sigma$ 14'12	9.08353 AU
direct	-4262 May 07 j 17:26	29° $\Sigma$ 59'11		direct	-4256 Jul 14 j 02:34	5° $\Sigma$ 59'06	
	-4262 May 11 j 20:56	0° $\Omega$		evening set	-4256 Oct 22 j 05:09	12° $\Sigma$ 57'17	
evening set	-4262 Aug 18 j 22:46	7° $\Omega$ 02'15					
conjunction	-4262 Sep 04 j 14:01	8° $\Omega$ 57'07	2°16'34	conjunction	-4256 Nov 07 j 16:10	14° $\Sigma$ 53'22	1°40'40
minimum elong	-4262 Sep 04 j 13:59	8° $\Omega$ 57'06	2°16'43	minimum elong	-4256 Nov 07 j 16:13	14° $\Sigma$ 53'23	1°40'38
max. Earth dist.	-4262 Sep 04 j 07:23	8° $\Omega$ 55'12	11.18514 AU	max. Earth dist.	-4256 Nov 06 j 22:24	14° $\Sigma$ 48'07	11.03227 AU
morning rise	-4262 Sep 21 j 01:32	10° $\Omega$ 50'59		morning rise	-4256 Nov 24 j 04:57	16° $\Sigma$ 50'02	
	-4262 Oct 31 j 20:42	15° $\Omega$		retrograde	-4255 Mar 06 j 15:40	23° $\Sigma$ 59'22	
retrograde	-4262 Dec 28 j 16:42	17° $\Omega$ 37'04		opposition	-4255 May 16 j 16:46	20° $\Sigma$ 39'49	1°49'36
	-4261 Feb 27 j 19:17	15° $\Sigma$		min. Earth dist.	-4255 May 17 j 08:21	20° $\Sigma$ 36'56	8.97627 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 13

Attention, astronomical year style is used: The year -4255 in astronomical counting style is the year 4256 BCE in historical counting style.

direct	-4255 Jul 25 j 18:57	17°♂21'39		max. Earth dist.	-4249 Jan 21 j 00:26	29°♂24'07	10.16790 AU
evening set	-4255 Nov 02 j 14:38	24°♂24'19			-4249 Jan 25 j 15:15	0°♂	
max. Earth dist.	-4255 Nov 18 j 10:49	26°♂17'22	10.91427 AU	morning rise	-4249 Feb 07 j 19:26	1°♂41'24	
				retrograde	-4249 May 26 j 11:16	10°♂00'53	
conjunction	-4255 Nov 19 j 04:12	26°♂22'34	1°17'48	opposition	-4249 Aug 03 j 09:09	6°♂30'54	-1°-49'-9
minimum elong	-4255 Nov 19 j 04:14	26°♂22'35	1°17'43	min. Earth dist.	-4249 Aug 03 j 11:27	6°♂30'26	8.10118 AU
morning rise	-4255 Dec 05 j 20:19	28°♂21'41		direct	-4249 Oct 08 j 20:43	3°♂06'05	
	-4255 Dec 20 j 03:53	0°♂		evening set	-4248 Jan 18 j 03:53	11°♂04'24	
retrograde	-4254 Mar 19 j 04:54	5°♂40'41					
opposition	-4254 May 29 j 03:57	2°♂19'30	1°19'18	conjunction	-4248 Feb 04 j 16:24	13°♂21'20	-1°-40'-20
min. Earth dist.	-4254 May 29 j 18:44	2°♂16'44	8.84728 AU	minimum elong	-4248 Feb 04 j 16:21	13°♂21'19	1°40'33
	-4254 Jul 02 j 14:30	30°♂		max. Earth dist.	-4248 Feb 04 j 16:14	13°♂21'16	10.04006 AU
direct	-4254 Aug 06 j 16:51	29°♂00'45		morning rise	-4248 Feb 22 j 09:59	15°♂39'58	
	-4254 Sep 09 j 21:57	0°♂		retrograde	-4248 Jun 09 j 11:24	24°♂09'30	
evening set	-4254 Nov 14 j 07:54	6°♂09'35		opposition	-4248 Aug 16 j 18:55	20°♂38'18	-2°-20'-33
max. Earth dist.	-4254 Nov 30 j 08:44	8°♂05'38	10.77692 AU	min. Earth dist.	-4248 Aug 16 j 17:03	20°♂38'41	7.98631 AU
				direct	-4248 Oct 21 j 20:43	17°♂12'02	
conjunction	-4254 Dec 01 j 00:42	8°♂10'29	0°51'07	evening set	-4247 Jan 31 j 23:33	25°♂20'54	
minimum elong	-4254 Dec 01 j 00:44	8°♂10'30	0°51'00				
morning rise	-4254 Dec 17 j 20:43	10°♂12'29		conjunction	-4247 Feb 18 j 15:52	27°♂40'29	-2°-2'-19
	-4253 Feb 01 j 05:33	15°♂		minimum elong	-4247 Feb 18 j 15:49	27°♂40'28	2°02'30
retrograde	-4253 Apr 01 j 05:44	17°♂42'32		max. Earth dist.	-4247 Feb 18 j 20:35	27°♂42'03	9.93835 AU
	-4253 Jun 01 j 23:33	15°♂		morning rise	-4247 Mar 08 j 12:44	0°♂01'37	
opposition	-4253 Jun 10 j 22:14	14°♂19'35	0°44'38		-4247 Mar 08 j 07:46	0°♂	
min. Earth dist.	-4253 Jun 11 j 11:08	14°♂17'08	8.70196 AU	retrograde	-4247 Jun 24 j 16:40	8°♂38'20	
direct	-4253 Aug 18 j 19:59	11°♂00'00		opposition	-4247 Aug 31 j 10:10	5°♂06'21	-2°-43'-54
	-4253 Oct 28 j 11:33	15°♂		min. Earth dist.	-4247 Aug 31 j 04:27	5°♂07'32	7.90116 AU
evening set	-4253 Nov 26 j 10:50	18°♂16'33		direct	-4247 Nov 05 j 06:07	1°♂38'43	
				evening set	-4246 Feb 16 j 06:01	9°♂56'28	
conjunction	-4253 Dec 13 j 07:14	20°♂20'28	0°21'27				
minimum elong	-4253 Dec 13 j 07:15	20°♂20'28	0°21'18	conjunction	-4246 Mar 06 j 01:52	12°♂18'09	-2°-16'-55
max. Earth dist.	-4253 Dec 12 j 16:24	20°♂15'53	10.62627 AU	minimum elong	-4246 Mar 06 j 01:50	12°♂18'08	2°17'04
morning rise	-4253 Dec 30 j 07:41	22°♂25'44		max. Earth dist.	-4246 Mar 06 j 11:08	12°♂21'14	9.86969 AU
	-4252 Apr 01 j 03:30	0°♂		morning rise	-4246 Mar 24 j 01:32	14°♂41'04	
retrograde	-4252 Apr 13 j 16:38	0°♂07'51			-4246 Mar 26 j 11:42	15°♂	
	-4252 Apr 26 j 04:50	30°♂		retrograde	-4246 Jul 09 j 23:18	23°♂21'10	
opposition	-4252 Jun 23 j 00:29	26°♂43'03	0°06'42	opposition	-4246 Sep 15 j 04:38	19°♂48'53	-2°-56'-58
min. Earth dist.	-4252 Jun 23 j 11:31	26°♂40'56	8.54692 AU	min. Earth dist.	-4246 Sep 14 j 19:47	19°♂50'44	7.85149 AU
desc. node	-4252 Aug 26 j 15:59	23°♂23'04		direct	-4246 Nov 19 j 22:36	16°♂20'03	
direct	-4252 Aug 30 j 05:09	23°♂22'24		evening set	-4245 Mar 03 j 20:17	24°♂44'11	
	-4252 Dec 01 j 10:41	0°♂					
evening set	-4252 Dec 08 j 01:11	0°♂48'07		conjunction	-4245 Mar 21 j 19:16	27°♂07'12	-2°-22'-44
				minimum elong	-4245 Mar 21 j 19:16	27°♂07'12	2°22'51
conjunction	-4252 Dec 25 j 01:23	2°♂55'16	0°-10'-11	max. Earth dist.	-4245 Mar 22 j 08:18	27°♂11'33	9.83891 AU
minimum elong	-4252 Dec 25 j 01:23	2°♂55'15	0°10'22	morning rise	-4245 Apr 08 j 21:05	29°♂31'06	
behind sun begin	-4252 Dec 24 j 19:45	2°♂53'31			-4245 Apr 12 j 13:54	0°♂	
behind sun end	-4252 Dec 25 j 07:00	2°♂57'00		retrograde	-4245 Jul 25 j 04:25	8°♂10'11	
max. Earth dist.	-4252 Dec 24 j 12:24	2°♂51'12	10.46928 AU	opposition	-4245 Sep 29 j 23:42	4°♂38'08	-2°-58'-20
morning rise	-4251 Jan 11 j 06:27	5°♂03'59		min. Earth dist.	-4245 Sep 29 j 12:36	4°♂40'28	7.84081 AU
retrograde	-4251 Apr 27 j 12:20	12°♂58'50		direct	-4245 Dec 04 j 20:25	1°♂08'22	
opposition	-4251 Jul 06 j 11:07	9°♂32'11	0°-32'-57	evening set	-4244 Mar 18 j 14:08	9°♂35'40	
min. Earth dist.	-4251 Jul 06 j 19:59	9°♂30'27	8.38967 AU				
direct	-4251 Sep 12 j 00:52	6°♂10'14		conjunction	-4244 Apr 05 j 15:41	11°♂59'10	-2°-19'-7
evening set	-4251 Dec 21 j 04:17	13°♂46'17		minimum elong	-4244 Apr 05 j 15:44	11°♂59'11	2°19'12
				max. Earth dist.	-4244 Apr 06 j 07:34	12°♂04'28	9.84835 AU
conjunction	-4250 Jan 07 j 08:35	15°♂56'48	0°-42'-11	morning rise	-4244 Apr 23 j 18:53	14°♂23'07	
minimum elong	-4250 Jan 07 j 08:33	15°♂56'48	0°42'23	retrograde	-4244 Aug 08 j 04:40	22°♂56'54	
max. Earth dist.	-4250 Jan 06 j 22:50	15°♂53'42	10.31374 AU	opposition	-4244 Oct 13 j 16:57	19°♂25'36	-2°-47'-50
morning rise	-4250 Jan 24 j 18:12	18°♂09'02		min. Earth dist.	-4244 Oct 13 j 04:16	19°♂28'16	7.86999 AU
retrograde	-4250 May 11 j 18:49	26°♂16'37		direct	-4244 Dec 18 j 20:58	15°♂55'16	
opposition	-4250 Jul 20 j 06:10	22°♂48'12	-1°-12'-23	evening set	-4243 Apr 03 j 07:06	24°♂22'08	
min. Earth dist.	-4250 Jul 20 j 12:10	22°♂47'00	8.23834 AU				
direct	-4250 Sep 25 j 06:12	19°♂24'50		conjunction	-4243 Apr 21 j 10:27	26°♂45'13	-2°-6'-24
evening set	-4249 Jan 03 j 21:06	27°♂11'57		minimum elong	-4243 Apr 21 j 10:31	26°♂45'15	2°06'26
				max. Earth dist.	-4243 Apr 22 j 04:18	26°♂51'08	9.89739 AU
conjunction	-4249 Jan 21 j 05:35	29°♂25'47	-1°-12'-56	morning rise	-4243 May 09 j 14:06	29°♂08'18	
minimum elong	-4249 Jan 21 j 05:32	29°♂25'47	1°13'08		-4243 May 16 j 07:19	0°♂	

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 14

Attention, astronomical year style is used: The year -4243 in astronomical counting style is the year 4244 BCE in historical counting style.

retrograde	-4243 Aug 22 j 21:07	7°Υ33'02		minimum elong	-4237 Jul 15 j 10:02	17°Π54'20	0°46'55
opposition	-4243 Oct 28 j 05:45	4°Υ02'56	-2°-26'-28	max. Earth dist.	-4237 Jul 15 j 18:31	17°Π56'54	10.69840 AU
min. Earth dist.	-4243 Oct 27 j 15:55	4°Υ05'50	7.93697 AU	morning rise	-4237 Aug 01 j 17:34	19°Π59'18	
direct	-4242 Jan 02 j 21:31	0°Υ32'25		retrograde	-4237 Nov 08 j 20:03	27°Π09'27	
evening set	-4242 Apr 18 j 19:33	8°Υ55'34		opposition	-4236 Jan 15 j 17:30	23°Π50'19	1°14'28
				min. Earth dist.	-4236 Jan 15 j 11:52	23°Π51'24	8.77185 AU
conjunction	-4242 May 06 j 23:38	11°Υ17'20	-1°-45'-46	direct	-4236 Mar 26 j 08:07	20°Π25'18	
minimum elong	-4242 May 06 j 23:43	11°Υ17'21	1°45'46	evening set	-4236 Jul 09 j 14:10	27°Π53'19	
max. Earth dist.	-4242 May 07 j 18:22	11°Υ23'28	9.98243 AU				
morning rise	-4242 May 25 j 02:34	13°Υ38'37		conjunction	-4236 Jul 26 j 21:32	29°Π56'32	1°14'17
retrograde	-4242 Sep 06 j 03:18	21°Υ51'34		minimum elong	-4236 Jul 26 j 21:29	29°Π56'31	1°14'28
opposition	-4242 Nov 11 j 12:03	18°Υ23'03	-1°-56'-19	max. Earth dist.	-4236 Jul 27 j 01:54	29°Π57'50	10.84317 AU
min. Earth dist.	-4242 Nov 10 j 21:37	18°Υ26'03	8.03703 AU		-4236 Jul 27 j 09:09	0°Ϸ	
direct	-4241 Jan 17 j 19:13	14°Υ52'46		morning rise	-4236 Aug 12 j 23:47	1°Ϸ58'12	
evening set	-4241 May 03 j 23:57	23°Υ09'23		retrograde	-4236 Nov 19 j 15:54	8°Ϸ59'38	
				opposition	-4235 Jan 27 j 00:15	5°Ϸ41'54	1°45'48
conjunction	-4241 May 22 j 03:27	25°Υ29'00	-1°-19'-4	min. Earth dist.	-4235 Jan 26 j 21:06	5°Ϸ42'30	8.90968 AU
minimum elong	-4241 May 22 j 03:30	25°Υ29'02	1°19'01	direct	-4235 Apr 08 j 02:34	2°Ϸ18'13	
max. Earth dist.	-4241 May 22 j 22:06	25°Υ35'02	10.09749 AU	evening set	-4235 Jul 21 j 20:10	9°Ϸ37'33	
morning rise	-4241 Jun 09 j 04:23	27°Υ47'44					
	-4241 Jun 27 j 04:27	0°Ϸ		conjunction	-4235 Aug 07 j 22:23	11°Ϸ37'47	1°37'59
retrograde	-4241 Sep 19 j 22:20	5°Ϸ47'24		minimum elong	-4235 Aug 07 j 22:20	11°Ϸ37'46	1°38'11
opposition	-4241 Nov 25 j 10:44	2°Ϸ20'43	-1°-20'-2	max. Earth dist.	-4235 Aug 07 j 23:31	11°Ϸ38'07	10.97134 AU
min. Earth dist.	-4241 Nov 24 j 20:16	2°Ϸ23'41	8.16355 AU	morning rise	-4235 Aug 24 j 19:32	13°Ϸ36'34	
	-4241 Dec 26 j 23:05	30°ϸΥ		retrograde	-4235 Dec 01 j 06:49	20°Ϸ31'15	
direct	-4240 Feb 01 j 10:09	28°Υ51'04		opposition	-4234 Feb 08 j 01:39	17°Ϸ14'40	2°11'55
	-4240 Mar 08 j 16:57	0°Ϸ		min. Earth dist.	-4234 Feb 08 j 01:50	17°Ϸ14'38	9.02807 AU
evening set	-4240 May 17 j 17:36	6°Ϸ59'02		direct	-4234 Apr 20 j 13:06	13°Ϸ52'15	
				evening set	-4234 Aug 02 j 16:55	21°Ϸ04'08	
conjunction	-4240 Jun 04 j 19:07	9°Ϸ15'52	0°-48'-26				
minimum elong	-4240 Jun 04 j 19:10	9°Ϸ15'53	0°48'20	conjunction	-4234 Aug 19 j 14:12	23°Ϸ01'49	1°57'14
max. Earth dist.	-4240 Jun 05 j 13:00	9°Ϸ21'33	10.23503 AU	minimum elong	-4234 Aug 19 j 14:10	23°Ϸ01'48	1°57'25
morning rise	-4240 Jun 22 j 16:51	11°Ϸ31'27		max. Earth dist.	-4234 Aug 19 j 11:40	23°Ϸ01'04	11.07758 AU
	-4240 Jul 22 j 10:42	15°Ϸ		morning rise	-4234 Sep 05 j 06:48	24°Ϸ58'12	
retrograde	-4240 Oct 02 j 07:29	19°Ϸ17'26			-4234 Oct 26 j 15:01	0°ϸ	
min. Earth dist.	-4240 Dec 07 j 11:32	15°Ϸ55'26	8.30861 AU	retrograde	-4234 Dec 12 j 17:31	1°ϸ48'08	
opposition	-4240 Dec 08 j 00:56	15°Ϸ52'44	0°-40'-25		-4233 Jan 30 j 12:24	30°ϸϷ	
	-4240 Dec 19 j 01:13	15°ϸϷ		opposition	-4233 Feb 19 j 22:57	28°Ϸ32'23	2°32'19
direct	-4239 Feb 14 j 16:39	12°Ϸ23'59		min. Earth dist.	-4233 Feb 20 j 02:58	28°Ϸ31'38	9.12276 AU
	-4239 Apr 12 j 02:51	15°Ϸ		direct	-4233 May 02 j 15:15	25°Ϸ11'10	
evening set	-4239 May 31 j 23:25	20°Ϸ22'08			-4233 Jul 24 j 08:00	0°ϸ	
				evening set	-4233 Aug 14 j 05:59	2°ϸ16'53	
conjunction	-4239 Jun 18 j 21:40	22°Ϸ35'42	0°-16'-3				
minimum elong	-4239 Jun 18 j 21:41	22°Ϸ35'43	0°15'55	conjunction	-4233 Aug 30 j 22:52	4°ϸ12'32	2°11'38
max. Earth dist.	-4239 Jun 19 j 13:40	22°Ϸ40'42	10.38663 AU	minimum elong	-4233 Aug 30 j 22:49	4°ϸ12'31	2°11'48
morning rise	-4239 Jul 06 j 15:12	24°Ϸ47'49		max. Earth dist.	-4233 Aug 30 j 15:58	4°ϸ10'32	11.15881 AU
	-4239 Aug 24 j 04:25	0°Π		morning rise	-4233 Sep 16 j 11:52	6°ϸ07'06	
retrograde	-4239 Oct 15 j 06:16	2°Π20'33		retrograde	-4233 Dec 24 j 00:11	12°ϸ54'09	
	-4239 Dec 08 j 00:35	30°ϸϷ		opposition	-4232 Mar 02 j 17:14	9°ϸ38'52	2°46'38
opposition	-4239 Dec 21 j 06:26	28°Ϸ57'50	0°00'-5	min. Earth dist.	-4232 Mar 03 j 00:22	9°ϸ37'33	9.19129 AU
min. Earth dist.	-4239 Dec 20 j 19:23	29°Ϸ00'02	8.46381 AU	direct	-4232 May 13 j 13:06	6°ϸ18'38	
asc. node	-4239 Dec 22 j 06:14	28°Ϸ53'07		evening set	-4232 Aug 24 j 12:48	13°ϸ19'31	
direct	-4238 Feb 28 j 14:02	25°Ϸ30'13			-4232 Sep 08 j 02:57	15°ϸ	
	-4238 May 16 j 14:39	0°Π					
evening set	-4238 Jun 14 j 16:44	3°Π18'04		conjunction	-4232 Sep 10 j 02:12	15°ϸ13'40	2°20'56
				minimum elong	-4232 Sep 10 j 02:10	15°ϸ13'40	2°21'04
conjunction	-4238 Jul 02 j 10:34	5°Π28'09	0°16'15	max. Earth dist.	-4232 Sep 09 j 16:07	15°ϸ10'46	11.21311 AU
minimum elong	-4238 Jul 02 j 10:33	5°Π28'09	0°16'25	morning rise	-4232 Sep 26 j 12:29	17°ϸ06'59	
max. Earth dist.	-4238 Jul 02 j 23:10	5°Π32'01	10.54376 AU	retrograde	-4231 Jan 03 j 08:35	23°ϸ52'58	
morning rise	-4238 Jul 19 j 23:14	7°Π36'40		opposition	-4231 Mar 14 j 09:45	20°ϸ37'45	2°54'44
retrograde	-4238 Oct 27 j 17:22	14°Π57'18		min. Earth dist.	-4231 Mar 14 j 18:52	20°ϸ36'06	9.23180 AU
opposition	-4237 Jan 03 j 03:48	11°Π36'29	0°38'46	direct	-4231 May 25 j 07:38	17°ϸ18'21	
min. Earth dist.	-4237 Jan 02 j 19:34	11°Π38'06	8.62083 AU	evening set	-4231 Sep 04 j 15:07	24°ϸ15'40	
direct	-4237 Mar 14 j 03:48	8°Π10'08					
evening set	-4237 Jun 27 j 21:23	15°Π47'47		conjunction	-4231 Sep 21 j 02:01	26°ϸ08'56	2°25'01
				minimum elong	-4231 Sep 21 j 02:01	26°ϸ08'56	2°25'08
conjunction	-4237 Jul 15 j 10:04	17°Π54'20	0°46'45	max. Earth dist.	-4231 Sep 20 j 14:12	26°ϸ05'31	11.23899 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 15

Attention, astronomical year style is used: The year -4231 in astronomical counting style is the year 4232 BCE in historical counting style.

morning rise	-4231 Oct 07 j 10:22	28° $\Omega$ 01'33		morning rise	-4225 Dec 12 j 20:37	5° $\mathbb{M}$ 07'34	
	-4231 Oct 25 j 12:01	0° $\mathbb{M}$		retrograde	-4224 Mar 25 j 17:48	12° $\mathbb{M}$ 32'46	
retrograde	-4230 Jan 14 j 16:12	4° $\mathbb{M}$ 48'11		opposition	-4224 Jun 04 j 13:52	9° $\mathbb{M}$ 10'06	1°00'44
opposition	-4230 Mar 26 j 01:50	1° $\mathbb{M}$ 32'43	2°56'30	min. Earth dist.	-4224 Jun 05 j 03:42	9° $\mathbb{M}$ 07'29	8.75469 AU
min. Earth dist.	-4230 Mar 26 j 12:47	1° $\mathbb{M}$ 30'43	9.24331 AU	direct	-4224 Aug 12 j 18:30	5° $\mathbb{M}$ 50'23	
	-4230 Apr 17 j 03:46	30° $\mathbb{R}$ $\Omega$		evening set	-4224 Nov 20 j 09:16	13° $\mathbb{M}$ 03'38	
direct	-4230 Jun 05 j 20:26	28° $\Omega$ 13'55			-4224 Dec 06 j 07:33	15° $\mathbb{M}$	
	-4230 Jul 23 j 22:36	0° $\mathbb{M}$					
evening set	-4230 Sep 15 j 14:43	5° $\mathbb{M}$ 09'02		conjunction	-4224 Dec 07 j 03:56	15° $\mathbb{M}$ 06'15	0°35'06
max. Earth dist.	-4230 Oct 01 j 10:08	6° $\mathbb{M}$ 57'57	11.23596 AU	minimum elong	-4224 Dec 07 j 03:57	15° $\mathbb{M}$ 06'15	0°34'59
				max. Earth dist.	-4224 Dec 06 j 12:43	15° $\mathbb{M}$ 01'35	10.68289 AU
conjunction	-4230 Oct 02 j 00:00	7° $\mathbb{M}$ 01'58	2°23'51	morning rise	-4224 Dec 24 j 02:29	17° $\mathbb{M}$ 10'07	
minimum elong	-4230 Oct 02 j 00:01	7° $\mathbb{M}$ 01'58	2°23'56	retrograde	-4223 Apr 07 j 22:43	24° $\mathbb{M}$ 46'53	
morning rise	-4230 Oct 18 j 07:34	8° $\mathbb{M}$ 54'31		opposition	-4223 Jun 17 j 12:27	21° $\mathbb{M}$ 22'30	0°24'06
retrograde	-4229 Jan 26 j 03:04	15° $\mathbb{M}$ 43'29		min. Earth dist.	-4223 Jun 18 j 00:23	21° $\mathbb{M}$ 20'12	8.60712 AU
opposition	-4229 Apr 06 j 18:55	12° $\mathbb{M}$ 27'26	2°51'57	direct	-4223 Aug 25 j 01:32	18° $\mathbb{M}$ 01'57	
min. Earth dist.	-4229 Apr 07 j 08:14	12° $\mathbb{M}$ 25'01	9.22578 AU	evening set	-4223 Dec 02 j 17:57	25° $\mathbb{M}$ 23'36	
direct	-4229 Jun 17 j 08:39	9° $\mathbb{M}$ 09'00					
evening set	-4229 Sep 26 j 13:14	16° $\mathbb{M}$ 03'19		conjunction	-4223 Dec 19 j 16:30	27° $\mathbb{M}$ 29'20	0°04'17
				minimum elong	-4223 Dec 19 j 16:31	27° $\mathbb{M}$ 29'20	0°04'08
conjunction	-4229 Oct 12 j 21:47	17° $\mathbb{M}$ 56'31	2°17'27	behind sun begin	-4223 Dec 19 j 09:32	27° $\mathbb{M}$ 27'11	
minimum elong	-4229 Oct 12 j 21:49	17° $\mathbb{M}$ 56'32	2°17'31	behind sun end	-4223 Dec 19 j 23:29	27° $\mathbb{M}$ 31'29	
max. Earth dist.	-4229 Oct 12 j 05:29	17° $\mathbb{M}$ 51'47	11.20437 AU	max. Earth dist.	-4223 Dec 19 j 04:22	27° $\mathbb{M}$ 25'34	10.53206 AU
morning rise	-4229 Oct 29 j 05:48	19° $\mathbb{M}$ 49'37		morning rise	-4222 Jan 05 j 19:26	29° $\mathbb{M}$ 36'32	
retrograde	-4228 Feb 06 j 15:22	26° $\mathbb{M}$ 42'36			-4222 Jan 09 j 00:43	0° $\mathbb{Z}$	
opposition	-4228 Apr 17 j 13:54	23° $\mathbb{M}$ 25'39	2°41'11	desc. node	-4222 Feb 07 j 18:06	3° $\mathbb{Z}$ 20'55	
min. Earth dist.	-4228 Apr 18 j 04:48	23° $\mathbb{M}$ 22'56	9.17987 AU	retrograde	-4222 Apr 21 j 14:27	7° $\mathbb{Z}$ 25'46	
direct	-4228 Jun 27 j 19:30	20° $\mathbb{M}$ 07'22		opposition	-4222 Jun 30 j 19:16	3° $\mathbb{Z}$ 59'38	0°-15'00
evening set	-4228 Oct 06 j 12:35	27° $\mathbb{M}$ 02'23		min. Earth dist.	-4222 Jul 01 j 04:05	3° $\mathbb{Z}$ 57'55	8.45434 AU
				direct	-4222 Sep 06 j 17:00	0° $\mathbb{Z}$ 38'05	
conjunction	-4228 Oct 22 j 21:34	28° $\mathbb{M}$ 56'25	2°05'58	evening set	-4222 Dec 15 j 15:09	8° $\mathbb{Z}$ 09'27	
minimum elong	-4228 Oct 22 j 21:36	28° $\mathbb{M}$ 56'26	2°05'59				
max. Earth dist.	-4228 Oct 22 j 04:28	28° $\mathbb{M}$ 51'25	11.14517 AU	conjunction	-4221 Jan 01 j 17:43	10° $\mathbb{Z}$ 18'30	0°-27'-50
	-4228 Oct 31 j 23:23	0° $\mathbb{Z}$		minimum elong	-4221 Jan 01 j 17:42	10° $\mathbb{Z}$ 18'30	0°28'00
morning rise	-4228 Nov 08 j 06:51	0° $\mathbb{Z}$ 50'37		max. Earth dist.	-4221 Jan 01 j 08:37	10° $\mathbb{Z}$ 15'38	10.37931 AU
retrograde	-4227 Feb 17 j 10:38	7° $\mathbb{Z}$ 49'19		morning rise	-4221 Jan 19 j 01:09	12° $\mathbb{Z}$ 29'10	
opposition	-4227 Apr 29 j 11:54	4° $\mathbb{Z}$ 31'12	2°24'19	retrograde	-4221 May 05 j 18:03	20° $\mathbb{Z}$ 31'08	
min. Earth dist.	-4227 Apr 30 j 03:01	4° $\mathbb{Z}$ 28'26	9.10696 AU	opposition	-4221 Jul 14 j 10:28	17° $\mathbb{Z}$ 03'22	0°-54'-49
direct	-4227 Jul 09 j 09:39	1° $\mathbb{Z}$ 12'51		min. Earth dist.	-4221 Jul 14 j 16:03	17° $\mathbb{Z}$ 02'16	8.30380 AU
evening set	-4227 Oct 17 j 14:40	8° $\mathbb{Z}$ 10'04		direct	-4221 Sep 19 j 16:27	13° $\mathbb{Z}$ 40'41	
max. Earth dist.	-4227 Nov 02 j 08:19	10° $\mathbb{Z}$ 00'36	11.06017 AU	evening set	-4221 Dec 29 j 01:54	21° $\mathbb{Z}$ 22'47	
conjunction	-4227 Nov 03 j 01:03	10° $\mathbb{Z}$ 05'32	1°49'35	conjunction	-4220 Jan 15 j 08:28	23° $\mathbb{Z}$ 35'08	0°-59'-23
minimum elong	-4227 Nov 03 j 01:05	10° $\mathbb{Z}$ 05'33	1°49'33	minimum elong	-4220 Jan 15 j 08:25	23° $\mathbb{Z}$ 35'07	0°59'35
morning rise	-4227 Nov 19 j 12:26	12° $\mathbb{Z}$ 01'25		max. Earth dist.	-4220 Jan 15 j 02:29	23° $\mathbb{Z}$ 33'13	10.23250 AU
retrograde	-4226 Mar 01 j 13:41	19° $\mathbb{Z}$ 07'25		morning rise	-4220 Feb 01 j 20:19	25° $\mathbb{Z}$ 49'14	
opposition	-4226 May 11 j 14:36	15° $\mathbb{Z}$ 47'57	2°01'38		-4220 Mar 08 j 18:00	0° $\mathbb{Z}$	
min. Earth dist.	-4226 May 12 j 05:10	15° $\mathbb{Z}$ 45'15	9.00943 AU	retrograde	-4220 May 19 j 07:21	4° $\mathbb{Z}$ 03'29	
direct	-4226 Jul 21 j 00:04	12° $\mathbb{Z}$ 29'23		opposition	-4220 Jul 27 j 10:06	0° $\mathbb{Z}$ 34'17	-1°-33'-5
evening set	-4226 Oct 28 j 21:25	19° $\mathbb{Z}$ 30'19		min. Earth dist.	-4220 Jul 27 j 12:30	0° $\mathbb{Z}$ 33'49	8.16361 AU
					-4220 Aug 03 j 13:49	30° $\mathbb{R}$ $\mathbb{Z}$	
conjunction	-4226 Nov 14 j 09:52	21° $\mathbb{Z}$ 27'42	1°28'37	direct	-4220 Oct 02 j 01:38	27° $\mathbb{Z}$ 10'20	
minimum elong	-4226 Nov 14 j 09:55	21° $\mathbb{Z}$ 27'43	1°28'32		-4220 Nov 27 j 14:58	0° $\mathbb{Z}$	
max. Earth dist.	-4226 Nov 13 j 16:49	21° $\mathbb{Z}$ 22'37	10.95217 AU	evening set	-4219 Jan 11 j 02:30	5° $\mathbb{Z}$ 03'35	
morning rise	-4226 Dec 01 j 00:22	23° $\mathbb{Z}$ 25'49					
	-4225 Feb 12 j 22:45	0° $\mathbb{M}$		conjunction	-4219 Jan 28 j 12:59	7° $\mathbb{Z}$ 19'05	-1°-28'-32
retrograde	-4225 Mar 13 j 22:52	0° $\mathbb{M}$ 40'43		minimum elong	-4219 Jan 28 j 12:56	7° $\mathbb{Z}$ 19'04	1°28'44
	-4225 Apr 12 j 08:40	30° $\mathbb{R}$ $\mathbb{Z}$		max. Earth dist.	-4219 Jan 28 j 10:51	7° $\mathbb{Z}$ 18'24	10.09995 AU
opposition	-4225 May 23 j 22:59	27° $\mathbb{Z}$ 19'42	1°33'34	morning rise	-4219 Feb 15 j 04:55	9° $\mathbb{Z}$ 36'21	
min. Earth dist.	-4225 May 24 j 13:24	27° $\mathbb{Z}$ 17'00	8.89057 AU	retrograde	-4219 Jun 03 j 04:22	18° $\mathbb{Z}$ 01'32	
direct	-4225 Aug 01 j 17:36	24° $\mathbb{Z}$ 00'40		opposition	-4219 Aug 10 j 17:21	14° $\mathbb{Z}$ 31'10	-2°-7'-12
	-4225 Oct 30 j 20:36	0° $\mathbb{M}$		min. Earth dist.	-4219 Aug 10 j 16:39	14° $\mathbb{Z}$ 31'19	8.04209 AU
evening set	-4225 Nov 09 j 11:02	1° $\mathbb{M}$ 06'58		direct	-4219 Oct 15 j 22:02	11° $\mathbb{Z}$ 05'55	
max. Earth dist.	-4225 Nov 25 j 09:16	3° $\mathbb{M}$ 01'38	10.82486 AU	evening set	-4218 Jan 25 j 16:41	19° $\mathbb{Z}$ 10'00	
conjunction	-4225 Nov 26 j 02:15	3° $\mathbb{M}$ 06'46	1°03'33	conjunction	-4218 Feb 12 j 07:04	21° $\mathbb{Z}$ 28'19	-1°-53'-11
minimum elong	-4225 Nov 26 j 02:17	3° $\mathbb{M}$ 06'47	1°03'27	minimum elong	-4218 Feb 12 j 07:01	21° $\mathbb{Z}$ 28'18	1°53'23

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 16

Attention, astronomical year style is used: The year -4218 in astronomical counting style is the year 4219 BCE in historical counting style.

max. Earth dist.	-4218 Feb 12 j 09:39	21° $\text{𐌆}$ 29'10	9.98993 AU	direct	-4212 Jan 11 j 12:22	8° $\text{𐌶}$ 45'19	
morning rise	-4218 Mar 02 j 02:35	23° $\text{𐌆}$ 48'18		evening set	-4212 Apr 26 j 15:59	17° $\text{𐌶}$ 05'15	
	-4218 Apr 26 j 17:26	0° $\approx$					
retrograde	-4218 Jun 18 j 07:06	2° $\approx$ 21'54		conjunction	-4212 May 14 j 19:54	19° $\text{𐌶}$ 25'56	-1°-31'-29
	-4218 Aug 10 j 23:40	30° $\text{𐌹}$ 𐌆		minimum elong	-4212 May 14 j 19:58	19° $\text{𐌶}$ 25'57	1°31'27
opposition	-4218 Aug 25 j 06:34	28° $\text{𐌆}$ 50'43	-2°-34'-26	max. Earth dist.	-4212 May 15 j 14:13	19° $\text{𐌶}$ 31'53	10.04693 AU
min. Earth dist.	-4218 Aug 25 j 02:33	28° $\text{𐌆}$ 51'33	7.94697 AU	morning rise	-4212 Jun 01 j 21:46	21° $\text{𐌶}$ 45'54	
direct	-4218 Oct 30 j 04:26	25° $\text{𐌆}$ 24'11		retrograde	-4212 Sep 13 j 07:22	29° $\text{𐌶}$ 51'56	
	-4217 Jan 11 j 04:09	0° $\approx$		opposition	-4212 Nov 18 j 16:22	26° $\text{𐌶}$ 24'45	-1°-36'-39
evening set	-4217 Feb 09 j 18:47	3° $\approx$ 37'49		min. Earth dist.	-4212 Nov 18 j 03:12	26° $\text{𐌶}$ 27'28	8.10595 AU
				direct	-4211 Jan 25 j 06:37	22° $\text{𐌶}$ 55'02	
conjunction	-4217 Feb 27 j 12:54	5° $\approx$ 58'28	-2°-11'-16		-4211 May 02 j 13:17	0° $\text{𐌹}$	
minimum elong	-4217 Feb 27 j 12:52	5° $\approx$ 58'27	2°11'27	evening set	-4211 May 11 j 15:08	1° $\text{𐌹}$ 07'22	
max. Earth dist.	-4217 Feb 27 j 20:18	6° $\approx$ 00'55	9.90962 AU				
morning rise	-4217 Mar 17 j 11:25	8° $\approx$ 20'31		conjunction	-4211 May 29 j 17:40	3° $\text{𐌹}$ 25'36	-1°-2'-19
	-4217 May 17 j 00:19	15° $\approx$		minimum elong	-4211 May 29 j 17:43	3° $\text{𐌹}$ 25'37	1°02'15
retrograde	-4217 Jul 03 j 12:41	16° $\approx$ 59'05		max. Earth dist.	-4211 May 30 j 10:37	3° $\text{𐌹}$ 31'01	10.17057 AU
	-4217 Aug 20 j 19:06	15° $\text{𐌹}$ $\approx$		morning rise	-4211 Jun 16 j 17:04	5° $\text{𐌹}$ 42'44	
opposition	-4217 Sep 08 j 23:56	13° $\approx$ 27'28	-2°-52'-17	retrograde	-4211 Sep 26 j 21:04	13° $\text{𐌹}$ 35'14	
min. Earth dist.	-4217 Sep 08 j 16:35	13° $\approx$ 29'00	7.88424 AU	opposition	-4211 Dec 02 j 10:50	10° $\text{𐌹}$ 09'48	0°-58'-11
direct	-4217 Nov 13 j 18:20	9° $\approx$ 59'44		min. Earth dist.	-4211 Dec 01 j 22:40	10° $\text{𐌹}$ 12'16	8.23906 AU
	-4216 Jan 29 j 07:00	15° $\approx$		direct	-4210 Feb 08 j 18:15	6° $\text{𐌹}$ 40'38	
evening set	-4216 Feb 25 j 05:51	18° $\approx$ 20'44		evening set	-4210 May 26 j 02:56	14° $\text{𐌹}$ 43'44	
					-4210 May 28 j 07:32	15° $\text{𐌹}$	
conjunction	-4216 Mar 14 j 03:21	20° $\approx$ 43'01	-2°-21'-8				
minimum elong	-4216 Mar 14 j 03:20	20° $\approx$ 43'01	2°21'16	conjunction	-4210 Jun 13 j 02:44	16° $\text{𐌹}$ 58'55	0°-30'-27
max. Earth dist.	-4216 Mar 14 j 15:06	20° $\approx$ 46'56	9.86407 AU	minimum elong	-4210 Jun 13 j 02:45	16° $\text{𐌹}$ 58'56	0°30'20
morning rise	-4216 Apr 01 j 04:11	23° $\approx$ 06'22		max. Earth dist.	-4210 Jun 13 j 17:22	17° $\text{𐌹}$ 03'32	10.31238 AU
	-4216 Jun 03 j 09:58	0° $\text{𐌹}$		morning rise	-4210 Jun 30 j 22:28	19° $\text{𐌹}$ 12'45	
retrograde	-4216 Jul 17 j 18:35	1° $\text{𐌹}$ 45'47		retrograde	-4210 Oct 09 j 23:29	26° $\text{𐌹}$ 51'45	
	-4216 Aug 31 j 16:47	30° $\text{𐌹}$ $\approx$		opposition	-4210 Dec 15 j 20:32	23° $\text{𐌹}$ 28'06	0°-17'-52
opposition	-4216 Sep 22 j 18:52	28° $\approx$ 14'11	-2°-58'-57	min. Earth dist.	-4210 Dec 15 j 09:24	23° $\text{𐌹}$ 30'20	8.38642 AU
min. Earth dist.	-4216 Sep 22 j 08:40	28° $\approx$ 16'19	7.85743 AU	direct	-4209 Feb 22 j 21:39	19° $\text{𐌹}$ 59'48	
direct	-4216 Nov 27 j 13:56	24° $\approx$ 45'26		asc. node	-4209 Jun 02 j 07:08	27° $\text{𐌹}$ 03'49	
	-4215 Feb 14 j 09:13	0° $\text{𐌹}$		evening set	-4209 Jun 09 j 02:09	27° $\text{𐌹}$ 52'46	
evening set	-4215 Mar 11 j 22:15	3° $\text{𐌹}$ 10'58					
				conjunction	-4209 Jun 26 j 22:04	0° $\text{𐌹}$ 04'34	0°02'09
conjunction	-4215 Mar 29 j 22:42	5° $\text{𐌹}$ 34'08	-2°-21'-45	minimum elong	-4209 Jun 26 j 22:06	0° $\text{𐌹}$ 04'34	0°02'19
minimum elong	-4215 Mar 29 j 22:44	5° $\text{𐌹}$ 34'08	2°21'51	behind sun begin	-4209 Jun 26 j 14:52	0° $\text{𐌹}$ 02'21	
max. Earth dist.	-4215 Mar 30 j 13:49	5° $\text{𐌹}$ 39'10	9.85562 AU	behind sun end	-4209 Jun 27 j 05:20	0° $\text{𐌹}$ 06'47	
morning rise	-4215 Apr 17 j 01:12	7° $\text{𐌹}$ 57'57			-4209 Jun 26 j 07:24	0° $\text{𐌹}$	
retrograde	-4215 Aug 01 j 21:44	16° $\text{𐌹}$ 34'04		max. Earth dist.	-4209 Jun 27 j 10:27	0° $\text{𐌹}$ 08'23	10.46401 AU
opposition	-4215 Oct 07 j 12:58	13° $\text{𐌹}$ 02'58	-2°-53'-42	morning rise	-4209 Jul 14 j 13:14	2° $\text{𐌹}$ 14'51	
min. Earth dist.	-4215 Oct 07 j 00:39	13° $\text{𐌹}$ 05'32	7.86751 AU	retrograde	-4209 Oct 22 j 15:14	9° $\text{𐌹}$ 41'13	
direct	-4215 Dec 12 j 13:04	9° $\text{𐌹}$ 33'28		opposition	-4209 Dec 28 j 21:44	6° $\text{𐌹}$ 19'19	0°21'54
evening set	-4214 Mar 27 j 16:04	18° $\text{𐌹}$ 00'24		min. Earth dist.	-4209 Dec 28 j 12:09	6° $\text{𐌹}$ 21'12	8.53980 AU
				direct	-4208 Mar 07 j 15:54	2° $\text{𐌹}$ 52'05	
conjunction	-4214 Apr 14 j 18:48	20° $\text{𐌹}$ 23'38	-2°-13'-1	evening set	-4208 Jun 21 j 12:24	10° $\text{𐌹}$ 34'42	
minimum elong	-4214 Apr 14 j 18:51	20° $\text{𐌹}$ 23'39	2°13'04				
max. Earth dist.	-4214 Apr 15 j 12:10	20° $\text{𐌹}$ 29'24	9.88446 AU	conjunction	-4208 Jul 09 j 03:42	12° $\text{𐌹}$ 43'00	0°33'35
morning rise	-4214 May 02 j 22:11	22° $\text{𐌹}$ 47'03		minimum elong	-4208 Jul 09 j 03:41	12° $\text{𐌹}$ 42'59	0°33'45
	-4214 Jul 10 j 16:05	0° $\text{𐌹}$		max. Earth dist.	-4208 Jul 09 j 13:44	12° $\text{𐌹}$ 46'03	10.61730 AU
retrograde	-4214 Aug 16 j 18:47	1° $\text{𐌹}$ 16'01		morning rise	-4208 Jul 26 j 13:39	14° $\text{𐌹}$ 49'41	
	-4214 Sep 23 j 03:18	30° $\text{𐌹}$ 𐌹		retrograde	-4208 Nov 02 j 23:18	22° $\text{𐌹}$ 04'50	
opposition	-4214 Oct 22 j 03:59	27° $\text{𐌹}$ 45'53	-2°-37'-2	opposition	-4207 Jan 09 j 14:52	18° $\text{𐌹}$ 44'33	0°59'13
min. Earth dist.	-4214 Oct 21 j 14:32	27° $\text{𐌹}$ 48'42	7.91416 AU	min. Earth dist.	-4207 Jan 09 j 07:49	18° $\text{𐌹}$ 45'56	8.69134 AU
direct	-4214 Dec 27 j 13:24	24° $\text{𐌹}$ 16'00		direct	-4207 Mar 20 j 23:15	15° $\text{𐌹}$ 18'30	
	-4213 Mar 21 j 16:21	0° $\text{𐌹}$		evening set	-4207 Jul 04 j 10:36	22° $\text{𐌹}$ 51'12	
evening set	-4213 Apr 12 j 07:16	2° $\text{𐌹}$ 41'00					
				conjunction	-4207 Jul 21 j 20:39	24° $\text{𐌹}$ 56'04	1°02'34
conjunction	-4213 Apr 30 j 11:14	5° $\text{𐌹}$ 03'23	-1°-55'-44	minimum elong	-4207 Jul 21 j 20:37	24° $\text{𐌹}$ 56'04	1°02'45
minimum elong	-4213 Apr 30 j 11:18	5° $\text{𐌹}$ 03'24	1°55'44	max. Earth dist.	-4207 Jul 22 j 03:28	24° $\text{𐌹}$ 58'07	10.76483 AU
max. Earth dist.	-4213 May 01 j 05:41	5° $\text{𐌹}$ 09'27	9.94944 AU	morning rise	-4207 Aug 08 j 01:14	26° $\text{𐌹}$ 59'21	
morning rise	-4213 May 18 j 14:25	7° $\text{𐌹}$ 25'30			-4207 Sep 04 j 03:58	0° $\text{𐌹}$	
retrograde	-4213 Aug 31 j 06:45	15° $\text{𐌹}$ 44'05		retrograde	-4207 Nov 14 j 21:57	4° $\text{𐌹}$ 04'54	
opposition	-4213 Nov 05 j 13:41	12° $\text{𐌹}$ 15'17	-2°-10'-32	opposition	-4206 Jan 22 j 00:44	0° $\text{𐌹}$ 46'05	1°32'37
min. Earth dist.	-4213 Nov 05 j 00:01	12° $\text{𐌹}$ 18'08	7.99526 AU	min. Earth dist.	-4206 Jan 21 j 21:05	0° $\text{𐌹}$ 46'47	8.83412 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 17

Attention, astronomical year style is used: The year -4206 in astronomical counting style is the year 4207 BCE in historical counting style.

	-4206 Feb 01 j 03:35	30° $\text{R}\text{II}$		opposition	-4200 Mar 31 j 22:55	7° $\text{M}$ 49'54	2°54'40
direct	-4206 Apr 02 j 21:12	27° $\text{II}$ 21'17		min. Earth dist.	-4200 Apr 01 j 09:55	7° $\text{M}$ 47'54	9.24960 AU
	-4206 May 31 j 19:32	0° $\text{S}$		direct	-4200 Jun 11 j 16:21	4° $\text{M}$ 31'30	
evening set	-4206 Jul 16 j 21:31	4° $\text{S}$ 44'50		evening set	-4200 Sep 21 j 01:48	11° $\text{M}$ 25'23	
conjunction	-4206 Aug 03 j 02:05	6° $\text{S}$ 46'32	1°28'04	conjunction	-4200 Oct 07 j 10:36	13° $\text{M}$ 18'13	2°20'54
minimum elong	-4206 Aug 03 j 02:02	6° $\text{S}$ 46'31	1°28'15	minimum elong	-4200 Oct 07 j 10:38	13° $\text{M}$ 18'14	2°20'58
max. Earth dist.	-4206 Aug 03 j 04:38	6° $\text{S}$ 47'17	10.90034 AU	max. Earth dist.	-4200 Oct 06 j 21:26	13° $\text{M}$ 14'24	11.23775 AU
morning rise	-4206 Aug 20 j 01:34	8° $\text{S}$ 46'43		morning rise	-4200 Oct 23 j 18:11	15° $\text{M}$ 10'48	
retrograde	-4206 Nov 26 j 13:09	15° $\text{S}$ 44'34		retrograde	-4199 Jan 31 j 20:50	22° $\text{M}$ 00'58	
opposition	-4205 Feb 03 j 04:35	12° $\text{S}$ 26'59	2°01'09	opposition	-4199 Apr 12 j 16:15	18° $\text{M}$ 44'47	2°46'37
min. Earth dist.	-4205 Feb 03 j 03:43	12° $\text{S}$ 27'09	8.96231 AU	min. Earth dist.	-4199 Apr 13 j 04:25	18° $\text{M}$ 42'35	9.22282 AU
direct	-4205 Apr 15 j 12:14	9° $\text{S}$ 03'27		direct	-4199 Jun 23 j 02:36	15° $\text{M}$ 26'53	
evening set	-4205 Jul 28 j 22:08	16° $\text{S}$ 18'52		evening set	-4199 Oct 02 j 00:08	22° $\text{M}$ 20'36	
conjunction	-4205 Aug 14 j 21:32	18° $\text{S}$ 17'45	1°49'21	conjunction	-4199 Oct 18 j 08:48	24° $\text{M}$ 13'58	2°11'39
minimum elong	-4205 Aug 14 j 21:29	18° $\text{S}$ 17'44	1°49'32	minimum elong	-4199 Oct 18 j 08:50	24° $\text{M}$ 13'58	2°11'41
max. Earth dist.	-4205 Aug 14 j 20:25	18° $\text{S}$ 17'25	11.01869 AU	max. Earth dist.	-4199 Oct 17 j 17:59	24° $\text{M}$ 09'39	11.19696 AU
morning rise	-4205 Aug 31 j 16:20	20° $\text{S}$ 15'17		morning rise	-4199 Nov 03 j 17:09	26° $\text{M}$ 07'20	
retrograde	-4205 Dec 08 j 01:30	27° $\text{S}$ 07'20			-4199 Dec 11 j 03:13	0° $\text{S}$	
opposition	-4204 Feb 15 j 03:25	23° $\text{S}$ 50'43	2°24'07	retrograde	-4198 Feb 12 j 13:05	3° $\text{S}$ 02'16	
min. Earth dist.	-4204 Feb 15 j 04:42	23° $\text{S}$ 50'28	9.07104 AU		-4198 Apr 21 j 03:33	30° $\text{R}$ $\text{M}$	
direct	-4204 Apr 26 j 19:10	20° $\text{S}$ 28'28		opposition	-4198 Apr 24 j 12:22	29° $\text{M}$ 45'16	2°32'26
evening set	-4204 Aug 08 j 14:12	27° $\text{S}$ 36'54		min. Earth dist.	-4198 Apr 25 j 02:07	29° $\text{M}$ 42'45	9.16764 AU
conjunction	-4204 Aug 25 j 09:07	29° $\text{S}$ 33'28	2°05'55	direct	-4198 Jul 04 j 13:37	26° $\text{M}$ 27'33	
minimum elong	-4204 Aug 25 j 09:04	29° $\text{S}$ 33'28	2°06'05		-4198 Sep 11 j 05:23	0° $\text{S}$	
max. Earth dist.	-4204 Aug 25 j 05:28	29° $\text{S}$ 32'25	11.11559 AU	evening set	-4198 Oct 13 j 00:23	3° $\text{S}$ 22'36	
	-4204 Aug 29 j 04:07	0° $\text{S}$		conjunction	-4198 Oct 29 j 09:46	5° $\text{S}$ 17'04	1°57'26
morning rise	-4204 Sep 10 j 23:44	1° $\text{S}$ 28'51		minimum elong	-4198 Oct 29 j 09:49	5° $\text{S}$ 17'04	1°57'26
retrograde	-4204 Dec 18 j 10:02	8° $\text{S}$ 16'57		max. Earth dist.	-4198 Oct 28 j 17:08	5° $\text{S}$ 12'11	11.12870 AU
opposition	-4203 Feb 25 j 22:23	5° $\text{S}$ 01'01	2°41'08	morning rise	-4198 Nov 14 j 20:03	7° $\text{S}$ 11'49	
min. Earth dist.	-4203 Feb 26 j 02:07	5° $\text{S}$ 00'20	9.15646 AU	retrograde	-4197 Feb 24 j 10:21	14° $\text{S}$ 13'08	
direct	-4203 May 08 j 18:26	1° $\text{S}$ 39'59		opposition	-4197 May 06 j 12:18	10° $\text{S}$ 54'59	2°12'22
evening set	-4203 Aug 19 j 23:23	8° $\text{S}$ 42'45		min. Earth dist.	-4197 May 07 j 03:17	10° $\text{S}$ 52'14	9.08568 AU
conjunction	-4203 Sep 05 j 14:25	10° $\text{S}$ 37'31	2°17'29	direct	-4197 Jul 16 j 02:33	7° $\text{S}$ 37'12	
minimum elong	-4203 Sep 05 j 14:24	10° $\text{S}$ 37'31	2°17'38	evening set	-4197 Oct 24 j 04:10	14° $\text{S}$ 35'07	
max. Earth dist.	-4203 Sep 05 j 08:09	10° $\text{S}$ 35'42	11.18775 AU	conjunction	-4197 Nov 09 j 15:22	16° $\text{S}$ 31'12	1°38'31
morning rise	-4203 Sep 22 j 01:42	12° $\text{S}$ 31'18		minimum elong	-4197 Nov 09 j 15:25	16° $\text{S}$ 31'13	1°38'28
	-4203 Oct 14 j 23:44	15° $\text{S}$		max. Earth dist.	-4197 Nov 08 j 22:29	16° $\text{S}$ 26'12	11.03470 AU
retrograde	-4203 Dec 29 j 17:59	19° $\text{S}$ 17'17		morning rise	-4197 Nov 26 j 04:20	18° $\text{S}$ 27'53	
opposition	-4202 Mar 09 j 15:17	16° $\text{S}$ 01'48	2°51'57	retrograde	-4196 Mar 07 j 14:48	25° $\text{S}$ 37'12	
min. Earth dist.	-4202 Mar 09 j 22:14	16° $\text{S}$ 00'31	9.21579 AU	opposition	-4196 May 17 j 17:03	22° $\text{S}$ 17'38	1°46'44
	-4202 Mar 23 j 22:05	15° $\text{R}$ $\text{S}$		min. Earth dist.	-4196 May 18 j 07:52	22° $\text{S}$ 14'53	8.97894 AU
direct	-4202 May 20 j 12:40	12° $\text{S}$ 41'49		direct	-4196 Jul 26 j 19:32	18° $\text{S}$ 59'31	
	-4202 Jul 14 j 22:38	15° $\text{S}$		evening set	-4196 Nov 03 j 13:38	26° $\text{S}$ 01'54	
evening set	-4202 Aug 31 j 03:14	19° $\text{S}$ 40'14		max. Earth dist.	-4196 Nov 19 j 11:04	27° $\text{S}$ 55'16	10.91722 AU
conjunction	-4202 Sep 16 j 15:04	21° $\text{S}$ 33'46	2°23'52	conjunction	-4196 Nov 20 j 03:26	28° $\text{S}$ 00'10	1°15'20
minimum elong	-4202 Sep 16 j 15:03	21° $\text{S}$ 33'46	2°23'59	minimum elong	-4196 Nov 20 j 03:28	28° $\text{S}$ 00'11	1°15'14
max. Earth dist.	-4202 Sep 16 j 05:17	21° $\text{S}$ 30'57	11.23294 AU	morning rise	-4196 Dec 06 j 19:38	29° $\text{S}$ 59'16	
morning rise	-4202 Oct 03 j 00:10	23° $\text{S}$ 26'33			-4196 Dec 06 j 22:07	0° $\text{M}$	
	-4202 Dec 25 j 05:40	0° $\text{M}$		retrograde	-4195 Mar 20 j 06:22	7° $\text{M}$ 18'10	
retrograde	-4201 Jan 09 j 23:23	0° $\text{M}$ 12'13		opposition	-4195 May 30 j 03:53	3° $\text{M}$ 57'00	1°16'06
	-4201 Jan 25 j 22:07	30° $\text{R}$ $\text{S}$		min. Earth dist.	-4195 May 30 j 17:48	3° $\text{M}$ 54'24	8.85043 AU
opposition	-4201 Mar 21 j 07:08	26° $\text{S}$ 56'49	2°56'28	direct	-4195 Aug 07 j 16:38	0° $\text{M}$ 38'20	
min. Earth dist.	-4201 Mar 21 j 16:42	26° $\text{S}$ 55'04	9.24718 AU	evening set	-4195 Nov 15 j 06:53	7° $\text{M}$ 46'51	
direct	-4201 Jun 01 j 02:39	23° $\text{S}$ 37'43		conjunction	-4195 Dec 01 j 23:46	9° $\text{M}$ 47'45	0°48'25
	-4201 Sep 06 j 04:59	0° $\text{M}$		minimum elong	-4195 Dec 01 j 23:48	9° $\text{M}$ 47'46	0°48'18
evening set	-4201 Sep 11 j 03:28	0° $\text{M}$ 33'11		max. Earth dist.	-4195 Dec 01 j 07:41	9° $\text{M}$ 42'52	10.78019 AU
conjunction	-4201 Sep 27 j 13:12	2° $\text{M}$ 26'04	2°25'00	morning rise	-4195 Dec 18 j 19:58	11° $\text{M}$ 49'46	
minimum elong	-4201 Sep 27 j 13:13	2° $\text{M}$ 26'04	2°25'05		-4194 Jan 16 j 03:07	15° $\text{M}$	
max. Earth dist.	-4201 Sep 27 j 01:00	2° $\text{M}$ 22'32	11.24982 AU	retrograde	-4194 Apr 02 j 05:46	19° $\text{M}$ 19'40	
morning rise	-4201 Oct 13 j 21:06	4° $\text{M}$ 18'27		opposition	-4194 Jun 11 j 22:02	15° $\text{M}$ 56'46	0°41'13
retrograde	-4200 Jan 21 j 08:36	11° $\text{M}$ 05'32		min. Earth dist.	-4194 Jun 12 j 10:51	15° $\text{M}$ 54'20	8.70519 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 18

Attention, astronomical year style is used: The year -4194 in astronomical counting style is the year 4195 BCE in historical counting style.

	-4194 Jun 24 j 13:37	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-4188 Jun 25 j 16:11	10° $\approx$ 15'37	
direct	-4194 Aug 19 j 18:00	12° $\mathbb{M}$ 37'16		opposition	-4188 Sep 01 j 09:14	6° $\approx$ 43'41	-2°-45'-11
	-4194 Oct 12 j 04:48	15° $\mathbb{M}$		min. Earth dist.	-4188 Sep 01 j 04:04	6° $\approx$ 44'45	7.90133 AU
evening set	-4194 Nov 27 j 09:45	19° $\mathbb{M}$ 53'35		direct	-4188 Nov 06 j 04:16	3° $\approx$ 16'01	
				evening set	-4187 Feb 17 j 05:56	11° $\approx$ 33'56	
conjunction	-4194 Dec 14 j 06:11	21° $\mathbb{M}$ 57'28	0°18'38				
minimum elong	-4194 Dec 14 j 06:12	21° $\mathbb{M}$ 57'28	0°18'30	conjunction	-4187 Mar 07 j 01:47	13° $\approx$ 55'38	-2°-17'-37
max. Earth dist.	-4194 Dec 13 j 14:43	21° $\mathbb{M}$ 52'43	10.62947 AU	minimum elong	-4187 Mar 07 j 01:46	13° $\approx$ 55'37	2°17'46
morning rise	-4194 Dec 31 j 06:54	24° $\mathbb{M}$ 02'44		max. Earth dist.	-4187 Mar 07 j 09:55	13° $\approx$ 58'20	9.86969 AU
	-4193 Feb 28 j 01:46	0° $\mathbb{Z}$			-4187 Mar 15 j 03:11	15° $\approx$	
retrograde	-4193 Apr 15 j 15:04	1° $\mathbb{Z}$ 44'47		morning rise	-4187 Mar 25 j 01:37	16° $\approx$ 18'35	
	-4193 Jun 02 j 08:16	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-4187 Jul 10 j 23:22	24° $\approx$ 58'35	
opposition	-4193 Jun 25 j 00:10	28° $\mathbb{M}$ 20'02	0°03'13	opposition	-4187 Sep 16 j 03:46	21° $\approx$ 26'21	-2°-57'-23
min. Earth dist.	-4193 Jun 25 j 11:46	28° $\mathbb{M}$ 17'48	8.54992 AU	min. Earth dist.	-4187 Sep 15 j 19:46	21° $\approx$ 28'02	7.85135 AU
desc. node	-4193 Jul 26 j 02:59	26° $\mathbb{M}$ 08'16		direct	-4187 Nov 20 j 21:18	17° $\approx$ 57'27	
direct	-4193 Sep 01 j 04:58	24° $\mathbb{M}$ 59'26		evening set	-4186 Mar 04 j 20:17	26° $\approx$ 21'45	
	-4193 Nov 19 j 11:51	0° $\mathbb{Z}$					
evening set	-4193 Dec 10 j 00:10	2° $\mathbb{Z}$ 25'00		conjunction	-4186 Mar 22 j 19:21	28° $\approx$ 44'48	-2°-22'-42
max. Earth dist.	-4193 Dec 26 j 11:31	4° $\mathbb{Z}$ 28'05	10.47210 AU	minimum elong	-4186 Mar 22 j 19:21	28° $\approx$ 44'48	2°22'49
				max. Earth dist.	-4186 Mar 23 j 07:19	28° $\approx$ 48'48	9.83870 AU
conjunction	-4193 Dec 27 j 00:32	4° $\mathbb{Z}$ 32'09	0°-12'-58		-4186 Apr 01 j 04:56	0° $\mathbb{H}$	
minimum elong	-4193 Dec 27 j 00:31	4° $\mathbb{Z}$ 32'09	0°13'09	morning rise	-4186 Apr 09 j 21:22	1° $\mathbb{H}$ 08'45	
behind sun begin	-4193 Dec 26 j 20:15	4° $\mathbb{Z}$ 30'50		retrograde	-4186 Jul 26 j 04:26	9° $\mathbb{H}$ 47'41	
behind sun end	-4193 Dec 27 j 04:46	4° $\mathbb{Z}$ 33'28		opposition	-4186 Sep 30 j 22:49	6° $\mathbb{H}$ 15'40	-2°-57'-51
morning rise	-4192 Jan 13 j 05:47	6° $\mathbb{Z}$ 40'53		min. Earth dist.	-4186 Sep 30 j 12:29	6° $\mathbb{H}$ 17'51	7.84050 AU
retrograde	-4192 Apr 28 j 11:38	14° $\mathbb{Z}$ 35'40		direct	-4186 Dec 05 j 20:16	2° $\mathbb{H}$ 45'50	
opposition	-4192 Jul 07 j 10:28	11° $\mathbb{Z}$ 09'04	0°-36'-20	evening set	-4185 Mar 20 j 14:16	11° $\mathbb{H}$ 13'17	
min. Earth dist.	-4192 Jul 07 j 19:45	11° $\mathbb{Z}$ 07'15	8.39220 AU				
direct	-4192 Sep 13 j 00:25	7° $\mathbb{Z}$ 47'11		conjunction	-4185 Apr 07 j 15:58	13° $\mathbb{H}$ 36'49	-2°-18'-23
evening set	-4192 Dec 22 j 03:22	15° $\mathbb{Z}$ 23'09		minimum elong	-4185 Apr 07 j 16:00	13° $\mathbb{H}$ 36'50	2°18'27
				max. Earth dist.	-4185 Apr 08 j 07:06	13° $\mathbb{H}$ 41'52	9.84800 AU
conjunction	-4191 Jan 08 j 07:53	17° $\mathbb{Z}$ 33'41	0°-44'-50	morning rise	-4185 Apr 25 j 19:19	16° $\mathbb{H}$ 00'49	
minimum elong	-4191 Jan 08 j 07:51	17° $\mathbb{Z}$ 33'40	0°45'02	retrograde	-4185 Aug 10 j 03:55	24° $\mathbb{H}$ 34'24	
max. Earth dist.	-4191 Jan 07 j 22:42	17° $\mathbb{Z}$ 30'45	10.31593 AU	opposition	-4185 Oct 15 j 16:01	21° $\mathbb{H}$ 03'07	-2°-46'-28
morning rise	-4191 Jan 25 j 17:32	19° $\mathbb{Z}$ 45'55		min. Earth dist.	-4185 Oct 15 j 03:40	21° $\mathbb{H}$ 05'43	7.86954 AU
retrograde	-4191 May 12 j 18:42	27° $\mathbb{Z}$ 53'28		direct	-4185 Dec 20 j 21:38	17° $\mathbb{H}$ 32'43	
opposition	-4191 Jul 21 j 05:21	24° $\mathbb{Z}$ 25'06	-1°-15'-30	evening set	-4184 Apr 04 j 07:17	25° $\mathbb{H}$ 59'43	
min. Earth dist.	-4191 Jul 21 j 11:09	24° $\mathbb{Z}$ 23'57	8.24023 AU				
direct	-4191 Sep 26 j 04:57	21° $\mathbb{Z}$ 01'48		conjunction	-4184 Apr 22 j 10:48	28° $\mathbb{H}$ 22'50	-2°-5'00
evening set	-4190 Jan 04 j 20:17	28° $\mathbb{Z}$ 48'55		minimum elong	-4184 Apr 22 j 10:52	28° $\mathbb{H}$ 22'51	2°05'02
	-4190 Jan 14 j 02:44	0° $\mathbb{Z}$		max. Earth dist.	-4184 Apr 23 j 04:25	28° $\mathbb{H}$ 28'40	9.89690 AU
					-4184 May 04 j 17:30	0° $\mathbb{Y}$	
conjunction	-4190 Jan 22 j 04:57	1° $\mathbb{Z}$ 02'45	-1°-15'-17	morning rise	-4184 May 10 j 14:29	0° $\mathbb{Y}$ 45'55	
minimum elong	-4190 Jan 22 j 04:54	1° $\mathbb{Z}$ 02'44	1°15'29	retrograde	-4184 Aug 23 j 19:30	9° $\mathbb{Y}$ 10'28	
max. Earth dist.	-4190 Jan 22 j 00:14	1° $\mathbb{Z}$ 01'14	10.16938 AU	opposition	-4184 Oct 29 j 04:47	5° $\mathbb{Y}$ 40'21	-2°-24'-21
morning rise	-4190 Feb 08 j 18:46	3° $\mathbb{Z}$ 18'21		min. Earth dist.	-4184 Oct 28 j 14:43	5° $\mathbb{Y}$ 43'18	7.93639 AU
retrograde	-4190 May 27 j 10:56	11° $\mathbb{Z}$ 37'50		direct	-4183 Jan 03 j 22:07	2° $\mathbb{Y}$ 09'47	
opposition	-4190 Aug 04 j 08:13	8° $\mathbb{Z}$ 07'54	-1°-51'-49	evening set	-4183 Apr 19 j 19:36	10° $\mathbb{Y}$ 32'59	
min. Earth dist.	-4190 Aug 04 j 10:02	8° $\mathbb{Z}$ 07'32	8.10241 AU				
direct	-4190 Oct 09 j 19:44	4° $\mathbb{Z}$ 43'08		conjunction	-4183 May 07 j 23:52	12° $\mathbb{Y}$ 54'47	-1°-43'-48
evening set	-4189 Jan 19 j 03:21	12° $\mathbb{Z}$ 41'31		minimum elong	-4183 May 07 j 23:56	12° $\mathbb{Y}$ 54'49	1°43'47
				max. Earth dist.	-4183 May 08 j 18:55	13° $\mathbb{Y}$ 01'01	9.98187 AU
conjunction	-4189 Feb 05 j 15:58	14° $\mathbb{Z}$ 58'28	-1°-42'-15	morning rise	-4183 May 26 j 02:44	15° $\mathbb{Y}$ 16'04	
minimum elong	-4189 Feb 05 j 15:54	14° $\mathbb{Z}$ 58'27	1°42'27	retrograde	-4183 Sep 07 j 01:40	23° $\mathbb{Y}$ 28'51	
max. Earth dist.	-4189 Feb 05 j 15:31	14° $\mathbb{Z}$ 58'19	10.04095 AU	opposition	-4183 Nov 12 j 11:03	20° $\mathbb{Y}$ 00'19	-1°-53'-35
morning rise	-4189 Feb 23 j 09:36	17° $\mathbb{Z}$ 17'05		min. Earth dist.	-4183 Nov 11 j 20:19	20° $\mathbb{Y}$ 03'22	8.03641 AU
retrograde	-4189 Jun 11 j 10:57	25° $\mathbb{Z}$ 46'37		direct	-4182 Jan 18 j 18:13	16° $\mathbb{Y}$ 29'58	
opposition	-4189 Aug 18 j 17:57	22° $\mathbb{Z}$ 15'28	-2°-22'-36	evening set	-4182 May 04 j 23:56	24° $\mathbb{Y}$ 46'36	
min. Earth dist.	-4189 Aug 18 j 16:01	22° $\mathbb{Z}$ 15'52	7.98697 AU				
direct	-4189 Oct 23 j 19:41	18° $\mathbb{Z}$ 49'12		conjunction	-4182 May 23 j 03:33	27° $\mathbb{Y}$ 06'16	-1°-16'-40
evening set	-4188 Feb 02 j 23:20	26° $\mathbb{Z}$ 58'12		minimum elong	-4182 May 23 j 03:37	27° $\mathbb{Y}$ 06'17	1°16'37
				max. Earth dist.	-4182 May 23 j 22:42	27° $\mathbb{Y}$ 12'27	10.09692 AU
conjunction	-4188 Feb 20 j 15:41	29° $\mathbb{Z}$ 17'49	-2°-3'-40	morning rise	-4182 Jun 10 j 04:22	29° $\mathbb{Y}$ 24'59	
minimum elong	-4188 Feb 20 j 15:38	29° $\mathbb{Z}$ 17'48	2°03'51		-4182 Jun 14 j 20:02	0° $\mathbb{Z}$	
max. Earth dist.	-4188 Feb 20 j 19:29	29° $\mathbb{Z}$ 19'04	9.93875 AU	retrograde	-4182 Sep 20 j 22:32	7° $\mathbb{Z}$ 24'28	
	-4188 Feb 25 j 23:08	0° $\approx$		opposition	-4182 Nov 26 j 09:45	3° $\mathbb{Z}$ 57'46	-1°-16'-51
morning rise	-4188 Mar 09 j 12:41	1° $\approx$ 38'57		min. Earth dist.	-4182 Nov 25 j 19:25	4° $\mathbb{Z}$ 00'43	8.16290 AU



## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 19

Attention, astronomical year style is used: The year -4181 in astronomical counting style is the year 4182 BCE in historical counting style.

direct	-4181 Feb 02 j 08:20	0°♄28'03		retrograde	-4176 Dec 02 j 06:41	22°♄07'49	
evening set	-4181 May 19 j 17:38	8°♄36'04		opposition	-4175 Feb 09 j 01:12	18°♄51'16	2°14'07
				min. Earth dist.	-4175 Feb 09 j 01:34	18°♄51'12	9.03052 AU
conjunction	-4181 Jun 06 j 19:06	10°♄52'54	0°-45'-45	direct	-4175 Apr 21 j 11:29	15°♄28'57	
minimum elong	-4181 Jun 06 j 19:09	10°♄52'55	0°45'39	evening set	-4175 Aug 03 j 16:00	22°♄40'39	
max. Earth dist.	-4181 Jun 07 j 13:10	10°♄58'39	10.23442 AU				
morning rise	-4181 Jun 24 j 16:39	13°♄08'28		conjunction	-4175 Aug 20 j 12:56	24°♄38'14	1°58'48
	-4181 Jul 10 j 00:54	15°♄		minimum elong	-4175 Aug 20 j 12:53	24°♄38'14	1°58'59
retrograde	-4181 Oct 04 j 07:22	20°♄54'18		max. Earth dist.	-4175 Aug 20 j 10:09	24°♄37'26	11.08059 AU
min. Earth dist.	-4181 Dec 09 j 11:19	17°♄32'10	8.30802 AU	morning rise	-4175 Sep 06 j 05:23	26°♄34'33	
opposition	-4181 Dec 10 j 00:03	17°♄29'36	0°-37'00		-4175 Oct 08 j 12:29	0°♄	
	-4180 Jan 13 j 14:20	15°♄♄		retrograde	-4175 Dec 13 j 14:57	3°♄24'24	
direct	-4180 Feb 16 j 15:39	14°♄00'47		opposition	-4174 Feb 20 j 22:18	0°♄08'41	2°33'56
	-4180 Mar 21 j 15:50	15°♄		min. Earth dist.	-4174 Feb 21 j 02:16	0°♄07'57	9.12634 AU
evening set	-4180 Jun 01 j 23:20	21°♄59'00			-4174 Feb 22 j 21:13	30°♄♄	
				direct	-4174 May 03 j 15:00	26°♄47'31	
conjunction	-4180 Jun 19 j 21:21	24°♄12'33	0°-13'-14		-4174 Jul 08 j 17:29	0°♄	
minimum elong	-4180 Jun 19 j 21:22	24°♄12'33	0°13'07	evening set	-4174 Aug 15 j 04:46	3°♄53'02	
behind sun begin	-4180 Jun 19 j 17:09	24°♄11'15					
behind sun end	-4180 Jun 20 j 01:35	24°♄13'51		conjunction	-4174 Aug 31 j 21:22	5°♄48'35	2°12'43
max. Earth dist.	-4180 Jun 20 j 12:52	24°♄17'23	10.38609 AU	minimum elong	-4174 Aug 31 j 21:20	5°♄48'34	2°12'52
morning rise	-4180 Jul 07 j 14:45	26°♄24'38		max. Earth dist.	-4174 Aug 31 j 14:34	5°♄46'36	11.16274 AU
	-4180 Aug 08 j 01:00	0°♄		morning rise	-4174 Sep 17 j 10:14	7°♄43'03	
retrograde	-4180 Oct 16 j 04:28	3°♄57'16		retrograde	-4174 Dec 24 j 23:43	14°♄30'03	
asc. node	-4180 Nov 20 j 09:20	2°♄52'32		opposition	-4173 Mar 04 j 16:31	11°♄14'47	2°47'38
opposition	-4180 Dec 22 j 05:39	0°♄34'35	0°03'23	min. Earth dist.	-4173 Mar 04 j 22:44	11°♄13'38	9.19547 AU
min. Earth dist.	-4180 Dec 21 j 19:07	0°♄36'41	8.46343 AU	direct	-4173 May 15 j 13:45	7°♄54'40	
	-4180 Dec 29 j 12:27	30°♄♄		evening set	-4173 Aug 26 j 11:11	14°♄55'15	
direct	-4179 Mar 01 j 14:28	27°♄06'56			-4173 Aug 27 j 03:59	15°♄	
	-4179 Apr 30 j 22:48	0°♄					
evening set	-4179 Jun 15 j 16:25	4°♄54'51		conjunction	-4173 Sep 12 j 00:28	16°♄49'20	2°21'30
				minimum elong	-4173 Sep 12 j 00:27	16°♄49'19	2°21'38
conjunction	-4179 Jul 03 j 09:59	7°♄04'52	0°19'02	max. Earth dist.	-4173 Sep 11 j 15:30	16°♄46'44	11.21746 AU
minimum elong	-4179 Jul 03 j 09:58	7°♄04'52	0°19'12	morning rise	-4173 Sep 28 j 10:30	18°♄42'32	
max. Earth dist.	-4179 Jul 03 j 21:46	7°♄08'29	10.54348 AU	retrograde	-4172 Jan 05 j 07:00	25°♄28'27	
morning rise	-4179 Jul 20 j 22:34	9°♄13'20		opposition	-4172 Mar 15 j 08:59	22°♄13'17	2°55'05
retrograde	-4179 Oct 28 j 16:12	16°♄33'58		min. Earth dist.	-4172 Mar 15 j 17:27	22°♄11'44	9.23625 AU
opposition	-4178 Jan 04 j 03:00	13°♄13'10	0°42'07	direct	-4172 May 26 j 05:36	18°♄54'01	
min. Earth dist.	-4178 Jan 03 j 18:32	13°♄14'49	8.62074 AU	evening set	-4172 Sep 05 j 13:20	25°♄51'00	
direct	-4178 Mar 15 j 03:40	9°♄46'49					
evening set	-4178 Jun 28 j 20:58	17°♄24'31		conjunction	-4172 Sep 22 j 00:08	27°♄44'11	2°25'03
				minimum elong	-4172 Sep 22 j 00:08	27°♄44'11	2°25'09
conjunction	-4178 Jul 16 j 09:26	19°♄31'02	0°49'23	max. Earth dist.	-4172 Sep 21 j 12:41	27°♄40'53	11.24350 AU
minimum elong	-4178 Jul 16 j 09:24	19°♄31'01	0°49'34	morning rise	-4172 Oct 08 j 08:21	29°♄36'44	
max. Earth dist.	-4178 Jul 16 j 17:46	19°♄33'33	10.69850 AU		-4172 Oct 11 j 19:02	0°♄	
morning rise	-4178 Aug 02 j 16:44	21°♄35'57		retrograde	-4171 Jan 15 j 15:24	6°♄23'16	
retrograde	-4178 Nov 09 j 18:59	28°♄46'06		opposition	-4171 Mar 27 j 00:56	3°♄07'52	2°56'13
opposition	-4177 Jan 16 j 16:42	25°♄26'59	1°17'34	min. Earth dist.	-4171 Mar 27 j 12:11	3°♄05'49	9.24783 AU
min. Earth dist.	-4177 Jan 16 j 10:18	25°♄28'13	8.77219 AU		-4171 May 22 j 14:27	30°♄♄	
direct	-4177 Mar 28 j 07:34	22°♄02'02		direct	-4171 Jun 06 j 19:27	29°♄49'10	
evening set	-4177 Jul 11 j 13:37	29°♄30'04			-4171 Jun 21 j 22:14	0°♄	
	-4177 Jul 15 j 19:35	0°♄		evening set	-4171 Sep 16 j 12:47	6°♄43'58	
conjunction	-4177 Jul 28 j 20:49	1°♄33'14	1°16'39	conjunction	-4171 Oct 02 j 21:53	8°♄36'51	2°23'22
minimum elong	-4177 Jul 28 j 20:46	1°♄33'13	1°16'51	minimum elong	-4171 Oct 02 j 21:54	8°♄36'51	2°23'26
max. Earth dist.	-4177 Jul 29 j 02:11	1°♄34'50	10.84388 AU	max. Earth dist.	-4171 Oct 02 j 07:26	8°♄32'40	11.24047 AU
morning rise	-4177 Aug 14 j 22:43	3°♄34'50		morning rise	-4171 Oct 19 j 05:32	10°♄29'21	
retrograde	-4177 Nov 21 j 15:19	10°♄36'20		retrograde	-4170 Jan 27 j 00:19	17°♄18'11	
opposition	-4176 Jan 28 j 23:44	7°♄18'38	1°48'30	opposition	-4170 Apr 07 j 17:51	14°♄02'12	2°51'03
min. Earth dist.	-4176 Jan 28 j 20:12	7°♄19'18	8.91085 AU	min. Earth dist.	-4170 Apr 08 j 07:24	13°♄59'44	9.23018 AU
direct	-4176 Apr 09 j 02:21	3°♄55'01		direct	-4170 Jun 18 j 06:52	10°♄43'52	
evening set	-4176 Jul 22 j 19:24	11°♄14'17		evening set	-4170 Sep 27 j 11:00	17°♄37'51	
conjunction	-4176 Aug 08 j 21:22	13°♄14'26	1°39'59	conjunction	-4170 Oct 13 j 19:34	19°♄31'00	2°16'28
minimum elong	-4176 Aug 08 j 21:19	13°♄14'25	1°40'11	minimum elong	-4170 Oct 13 j 19:36	19°♄31'00	2°16'31
max. Earth dist.	-4176 Aug 08 j 23:18	13°♄15'00	10.97309 AU	max. Earth dist.	-4170 Oct 13 j 03:39	19°♄26'22	11.20867 AU
morning rise	-4176 Aug 25 j 18:12	15°♄13'08		morning rise	-4170 Oct 30 j 03:38	21°♄24'03	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 20

Attention, astronomical year style is used: The year -4169 in astronomical counting style is the year 4170 BCE in historical counting style.

retrograde	-4169 Feb 07 j 13:56	28° $\overline{\text{M}}$ 16'57		morning rise	-4163 Jan 06 j 16:46	1° $\overline{\text{X}}$ 08'29	
opposition	-4169 Apr 19 j 12:40	25° $\overline{\text{M}}$ 00'01	2°39'41	desc. node	-4163 Jan 08 j 12:29	1° $\overline{\text{X}}$ 21'47	
min. Earth dist.	-4169 Apr 20 j 02:55	24° $\overline{\text{M}}$ 57'24	9.18393 AU	retrograde	-4163 Apr 22 j 13:12	8° $\overline{\text{X}}$ 57'41	
direct	-4169 Jun 29 j 19:28	21° $\overline{\text{M}}$ 41'49		opposition	-4163 Jul 01 j 16:45	5° $\overline{\text{X}}$ 31'29	0°-18'-13
evening set	-4169 Oct 08 j 10:07	28° $\overline{\text{M}}$ 36'28		min. Earth dist.	-4163 Jul 02 j 01:24	5° $\overline{\text{X}}$ 29'48	8.45410 AU
	-4169 Oct 20 j 10:55	0° $\underline{\text{A}}$		direct	-4163 Sep 07 j 13:36	2° $\overline{\text{X}}$ 09'53	
				evening set	-4163 Dec 16 j 12:21	9° $\overline{\text{X}}$ 41'12	
conjunction	-4169 Oct 24 j 19:15	0° $\underline{\text{A}}$ 30'29	2°04'31	conjunction	-4162 Jan 02 j 14:55	11° $\overline{\text{X}}$ 50'15	0°-30'-22
minimum elong	-4169 Oct 24 j 19:17	0° $\underline{\text{A}}$ 30'30	2°04'32	minimum elong	-4162 Jan 02 j 14:53	11° $\overline{\text{X}}$ 50'15	0°30'33
max. Earth dist.	-4169 Oct 24 j 03:04	0° $\underline{\text{A}}$ 25'45	11.14905 AU	max. Earth dist.	-4162 Jan 02 j 04:52	11° $\overline{\text{X}}$ 47'05	10.37862 AU
morning rise	-4169 Nov 10 j 04:33	2° $\underline{\text{A}}$ 24'40		morning rise	-4162 Jan 19 j 22:32	14° $\overline{\text{X}}$ 00'58	
retrograde	-4168 Feb 19 j 09:53	9° $\underline{\text{A}}$ 23'12		retrograde	-4162 May 06 j 16:21	22° $\overline{\text{X}}$ 02'57	
opposition	-4168 Apr 30 j 10:28	6° $\underline{\text{A}}$ 05'06	2°22'17	opposition	-4162 Jul 15 j 07:57	18° $\overline{\text{X}}$ 35'08	0°-57'-51
min. Earth dist.	-4168 May 01 j 00:57	6° $\underline{\text{A}}$ 02'27	9.11055 AU	min. Earth dist.	-4162 Jul 15 j 14:04	18° $\overline{\text{X}}$ 33'56	8.30264 AU
direct	-4168 Jul 10 j 07:28	2° $\underline{\text{A}}$ 46'51		direct	-4162 Sep 20 j 12:49	15° $\overline{\text{X}}$ 12'21	
evening set	-4168 Oct 18 j 12:06	9° $\underline{\text{A}}$ 43'41		evening set	-4162 Dec 29 j 23:09	22° $\overline{\text{X}}$ 54'32	
conjunction	-4168 Nov 03 j 22:33	11° $\underline{\text{A}}$ 39'08	1°47'44	conjunction	-4161 Jan 16 j 05:46	25° $\overline{\text{X}}$ 06'55	-1°-1'-42
minimum elong	-4168 Nov 03 j 22:36	11° $\underline{\text{A}}$ 39'09	1°47'42	minimum elong	-4161 Jan 16 j 05:43	25° $\overline{\text{X}}$ 06'54	1°01'54
max. Earth dist.	-4168 Nov 03 j 05:38	11° $\underline{\text{A}}$ 34'08	11.06351 AU	max. Earth dist.	-4161 Jan 15 j 23:00	25° $\overline{\text{X}}$ 04'45	10.23092 AU
morning rise	-4168 Nov 20 j 10:07	13° $\underline{\text{A}}$ 35'01		morning rise	-4161 Feb 02 j 17:49	27° $\overline{\text{X}}$ 21'03	
retrograde	-4167 Mar 02 j 11:00	20° $\underline{\text{A}}$ 40'51			-4161 Feb 24 j 15:11	0° $\overline{\text{Z}}$	
opposition	-4167 May 12 j 12:58	17° $\underline{\text{A}}$ 21'22	1°59'09	retrograde	-4161 May 21 j 04:08	5° $\overline{\text{Z}}$ 35'25	
min. Earth dist.	-4167 May 13 j 03:53	17° $\underline{\text{A}}$ 18'37	9.01240 AU	opposition	-4161 Jul 29 j 07:32	2° $\overline{\text{Z}}$ 06'10	-1°-35'-47
direct	-4167 Jul 21 j 21:18	14° $\underline{\text{A}}$ 02'50		min. Earth dist.	-4161 Jul 29 j 10:45	2° $\overline{\text{Z}}$ 05'32	8.16158 AU
evening set	-4167 Oct 29 j 18:43	21° $\underline{\text{A}}$ 03'27			-4161 Aug 26 j 13:32	30° $\overline{\text{R}}$ $\overline{\text{X}}$	
conjunction	-4167 Nov 15 j 07:11	23° $\underline{\text{A}}$ 00'49	1°26'26	direct	-4161 Oct 03 j 23:46	28° $\overline{\text{X}}$ 42'07	
minimum elong	-4167 Nov 15 j 07:14	23° $\underline{\text{A}}$ 00'50	1°26'21		-4161 Nov 10 j 12:57	0° $\overline{\text{Z}}$	
max. Earth dist.	-4167 Nov 14 j 13:32	22° $\underline{\text{A}}$ 55'34	10.95489 AU	evening set	-4160 Jan 13 j 00:02	6° $\overline{\text{Z}}$ 35'35	
morning rise	-4167 Dec 01 j 21:57	24° $\underline{\text{A}}$ 58'56		conjunction	-4160 Jan 30 j 10:40	8° $\overline{\text{Z}}$ 51'09	-1°-30'-31
	-4166 Jan 20 j 08:21	0° $\overline{\text{M}}$		minimum elong	-4160 Jan 30 j 10:37	8° $\overline{\text{Z}}$ 51'08	1°30'43
retrograde	-4166 Mar 14 j 20:46	2° $\overline{\text{M}}$ 13'41		max. Earth dist.	-4160 Jan 30 j 08:22	8° $\overline{\text{Z}}$ 50'24	10.09751 AU
	-4166 May 09 j 12:44	30° $\overline{\text{R}}$ $\underline{\text{A}}$		morning rise	-4160 Feb 17 j 02:41	11° $\overline{\text{Z}}$ 08'27	
opposition	-4166 May 24 j 21:10	28° $\underline{\text{A}}$ 52'39	1°30'43	retrograde	-4160 Jun 04 j 00:49	19° $\overline{\text{Z}}$ 33'48	
min. Earth dist.	-4166 May 25 j 12:08	28° $\underline{\text{A}}$ 49'51	8.89289 AU	opposition	-4160 Aug 11 j 14:38	16° $\overline{\text{Z}}$ 03'24	-2°-9'-24
direct	-4166 Aug 02 j 16:20	25° $\underline{\text{A}}$ 33'37		min. Earth dist.	-4160 Aug 11 j 14:25	16° $\overline{\text{Z}}$ 03'27	8.03929 AU
	-4166 Oct 17 j 15:55	0° $\overline{\text{M}}$		direct	-4160 Oct 16 j 20:08	12° $\overline{\text{Z}}$ 38'05	
evening set	-4166 Nov 10 j 08:07	2° $\overline{\text{M}}$ 39'37		evening set	-4159 Jan 26 j 14:28	20° $\overline{\text{Z}}$ 42'27	
conjunction	-4166 Nov 26 j 23:30	4° $\overline{\text{M}}$ 39'24	1°01'08	conjunction	-4159 Feb 13 j 05:03	23° $\overline{\text{Z}}$ 00'52	-1°-54'-42
minimum elong	-4166 Nov 26 j 23:33	4° $\overline{\text{M}}$ 39'25	1°01'02	minimum elong	-4159 Feb 13 j 05:00	23° $\overline{\text{Z}}$ 00'51	1°54'54
max. Earth dist.	-4166 Nov 26 j 06:52	4° $\overline{\text{M}}$ 34'23	10.82687 AU	max. Earth dist.	-4159 Feb 13 j 08:00	23° $\overline{\text{Z}}$ 01'51	9.98679 AU
morning rise	-4166 Dec 13 j 18:02	6° $\overline{\text{M}}$ 40'13		morning rise	-4159 Mar 03 j 00:33	25° $\overline{\text{Z}}$ 02'54	
retrograde	-4165 Mar 27 j 14:48	14° $\overline{\text{M}}$ 05'19			-4159 Apr 11 j 06:47	0° $\approx$	
opposition	-4165 Jun 06 j 11:51	10° $\overline{\text{M}}$ 42'35	0°57'38	retrograde	-4159 Jun 19 j 04:14	3° $\approx$ 54'45	
min. Earth dist.	-4165 Jun 07 j 01:35	10° $\overline{\text{M}}$ 40'00	8.75629 AU	opposition	-4159 Aug 26 j 03:58	0° $\approx$ 23'32	-2°-35'-59
direct	-4165 Aug 14 j 16:17	7° $\overline{\text{M}}$ 22'52		min. Earth dist.	-4159 Aug 25 j 23:46	0° $\approx$ 24'24	7.94368 AU
evening set	-4165 Nov 22 j 06:15	14° $\overline{\text{M}}$ 35'52			-4159 Aug 30 j 22:22	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
	-4165 Nov 25 j 14:28	15° $\overline{\text{M}}$		direct	-4159 Oct 31 j 01:27	26° $\overline{\text{Z}}$ 56'57	
max. Earth dist.	-4165 Dec 08 j 10:43	16° $\overline{\text{M}}$ 34'04	10.68406 AU		-4159 Dec 28 j 07:43	0° $\approx$	
conjunction	-4165 Dec 09 j 01:11	16° $\overline{\text{M}}$ 38'29	0°32'32	evening set	-4158 Feb 10 j 16:49	5° $\approx$ 10'58	
minimum elong	-4165 Dec 09 j 01:12	16° $\overline{\text{M}}$ 38'30	0°32'24	conjunction	-4158 Feb 28 j 11:09	7° $\approx$ 31'43	-2°-12'-13
morning rise	-4165 Dec 25 j 23:48	18° $\overline{\text{M}}$ 42'22		minimum elong	-4158 Feb 28 j 11:07	7° $\approx$ 31'42	2°12'23
retrograde	-4164 Apr 08 j 20:14	26° $\overline{\text{M}}$ 19'04		max. Earth dist.	-4158 Feb 28 j 19:10	7° $\approx$ 34'22	9.90622 AU
opposition	-4164 Jun 18 j 10:07	22° $\overline{\text{M}}$ 54'35	0°20'52	morning rise	-4158 Mar 18 j 09:38	9° $\approx$ 53'50	
min. Earth dist.	-4164 Jun 18 j 21:26	22° $\overline{\text{M}}$ 52'25	8.60786 AU		-4158 Apr 30 j 16:08	15° $\approx$	
direct	-4164 Aug 25 j 23:43	19° $\overline{\text{M}}$ 34'01		retrograde	-4158 Jul 04 j 11:19	18° $\approx$ 32'41	
evening set	-4164 Dec 03 j 15:05	26° $\overline{\text{M}}$ 55'30		opposition	-4158 Sep 09 j 21:27	15° $\approx$ 01'03	-2°-53'-3
conjunction	-4164 Dec 20 j 13:44	29° $\overline{\text{M}}$ 01'16	0°01'38	min. Earth dist.	-4158 Sep 09 j 13:36	15° $\approx$ 02'41	7.88100 AU
minimum elong	-4164 Dec 20 j 13:44	29° $\overline{\text{M}}$ 01'16	0°01'29		-4158 Sep 10 j 02:30	15° $\overline{\text{R}}$ $\approx$	
behind sun begin	-4164 Dec 20 j 06:39	28° $\overline{\text{M}}$ 59'05		direct	-4158 Nov 14 j 15:04	11° $\approx$ 33'18	
behind sun end	-4164 Dec 20 j 20:50	29° $\overline{\text{M}}$ 03'27			-4157 Jan 15 j 20:13	15° $\approx$	
max. Earth dist.	-4164 Dec 20 j 01:22	28° $\overline{\text{M}}$ 57'25	10.53228 AU	evening set	-4157 Feb 26 j 04:25	19° $\approx$ 54'44	
	-4164 Dec 28 j 10:28	0° $\overline{\text{X}}$					

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 21

Attention, astronomical year style is used: The year -4157 in astronomical counting style is the year 4158 BCE in historical counting style.

conjunction	-4157 Mar 16 j 02:06	22° <del>17</del> '06	-2°-21'-25	min. Earth dist.	-4152 Dec 02 j 20:09	11° <del>8</del> 46'47	8.24014 AU
minimum elong	-4157 Mar 16 j 02:05	22° <del>17</del> '06	2°21'33	direct	-4151 Feb 09 j 17:19	8° <del>8</del> 15'08	
max. Earth dist.	-4157 Mar 16 j 14:22	22° <del>21</del> '12	9.86116 AU		-4151 May 16 j 07:41	15° <del>8</del>	
morning rise	-4157 Apr 03 j 02:56	24° <del>40</del> '32		evening set	-4151 May 27 j 01:29	16° <del>8</del> 18'15	
	-4157 May 18 j 10:09	0° <del>8</del>					
retrograde	-4157 Jul 19 j 18:08	3° <del>8</del> 20'07		conjunction	-4151 Jun 14 j 01:18	18° <del>8</del> 33'24	0°-27'-47
	-4157 Sep 22 j 09:48	30° <del>8</del>		minimum elong	-4151 Jun 14 j 01:19	18° <del>8</del> 33'25	0°27'40
opposition	-4157 Sep 24 j 16:33	29° <del>48</del> '32	-2°-58'-53	max. Earth dist.	-4151 Jun 14 j 16:10	18° <del>8</del> 38'06	10.31346 AU
min. Earth dist.	-4157 Sep 24 j 05:55	29° <del>50</del> '46	7.85512 AU	morning rise	-4151 Jul 01 j 20:53	20° <del>8</del> 47'12	
direct	-4157 Nov 29 j 11:27	26° <del>19</del> '46		retrograde	-4151 Oct 10 j 20:59	28° <del>8</del> 26'08	
	-4156 Feb 02 j 01:17	0° <del>8</del>		opposition	-4151 Dec 16 j 18:28	25° <del>8</del> 02'33	0°-14'-30
evening set	-4156 Mar 12 j 21:13	4° <del>8</del> 45'39		min. Earth dist.	-4151 Dec 16 j 06:57	25° <del>8</del> 04'51	8.38738 AU
				direct	-4150 Feb 23 j 20:27	21° <del>8</del> 34'18	
conjunction	-4156 Mar 30 j 21:45	7° <del>8</del> 08'53	-2°-21'-21	asc. node	-4150 May 02 j 07:12	25° <del>8</del> 08'58	
minimum elong	-4156 Mar 30 j 21:47	7° <del>8</del> 08'53	2°21'27	evening set	-4150 Jun 10 j 00:45	29° <del>8</del> 27'18	
max. Earth dist.	-4156 Mar 31 j 13:06	7° <del>8</del> 14'00	9.85411 AU		-4150 Jun 14 j 11:59	0° <del>8</del>	
morning rise	-4156 Apr 18 j 00:18	9° <del>8</del> 32'44					
retrograde	-4156 Aug 02 j 20:42	18° <del>8</del> 08'48		conjunction	-4150 Jun 27 j 20:38	1° <del>8</del> 39'04	0°04'53
opposition	-4156 Oct 08 j 10:51	14° <del>8</del> 37'43	-2°-52'-47	minimum elong	-4150 Jun 27 j 20:38	1° <del>8</del> 39'04	0°05'02
min. Earth dist.	-4156 Oct 07 j 22:34	14° <del>8</del> 40'18	7.86683 AU	behind sun begin	-4150 Jun 27 j 13:37	1° <del>8</del> 36'55	
direct	-4156 Dec 13 j 11:12	11° <del>8</del> 08'12		behind sun end	-4150 Jun 28 j 03:40	1° <del>8</del> 41'13	
evening set	-4155 Mar 28 j 14:59	19° <del>8</del> 35'17		max. Earth dist.	-4150 Jun 28 j 09:41	1° <del>8</del> 43'06	10.46493 AU
				morning rise	-4150 Jul 15 j 11:30	3° <del>8</del> 49'17	
conjunction	-4155 Apr 15 j 17:45	21° <del>8</del> 58'32	-2°-11'-57	retrograde	-4150 Oct 23 j 14:20	11° <del>8</del> 15'38	
minimum elong	-4155 Apr 15 j 17:48	21° <del>8</del> 58'33	2°12'00	opposition	-4150 Dec 29 j 19:52	7° <del>8</del> 53'47	0°25'13
max. Earth dist.	-4155 Apr 16 j 10:45	22° <del>8</del> 04'10	9.88452 AU	min. Earth dist.	-4150 Dec 29 j 10:36	7° <del>8</del> 55'37	8.54062 AU
morning rise	-4155 May 03 j 21:13	24° <del>8</del> 21'57		direct	-4149 Mar 09 j 13:17	4° <del>8</del> 26'37	
	-4155 Jun 21 j 20:58	0° <del>8</del>		evening set	-4149 Jun 23 j 11:05	12° <del>8</del> 09'16	
retrograde	-4155 Aug 17 j 16:53	2° <del>8</del> 50'42					
	-4155 Oct 15 j 04:42	30° <del>8</del>		conjunction	-4149 Jul 11 j 02:08	14° <del>8</del> 17'31	0°36'13
opposition	-4155 Oct 23 j 01:54	29° <del>8</del> 20'38	-2°-35'-18	minimum elong	-4149 Jul 11 j 02:07	14° <del>8</del> 17'30	0°36'23
min. Earth dist.	-4155 Oct 22 j 13:05	29° <del>8</del> 23'19	7.91472 AU	max. Earth dist.	-4149 Jul 11 j 12:15	14° <del>8</del> 20'36	10.61805 AU
direct	-4155 Dec 28 j 11:44	25° <del>8</del> 50'42		morning rise	-4149 Jul 28 j 11:48	16° <del>8</del> 24'09	
	-4154 Mar 08 j 14:30	0° <del>8</del>		retrograde	-4149 Nov 04 j 21:30	23° <del>8</del> 39'16	
evening set	-4154 Apr 13 j 06:09	4° <del>8</del> 15'45		opposition	-4148 Jan 11 j 13:14	20° <del>8</del> 19'04	1°02'20
				min. Earth dist.	-4148 Jan 11 j 06:50	20° <del>8</del> 20'18	8.69211 AU
conjunction	-4154 May 01 j 10:06	6° <del>8</del> 38'09	-1°-54'-4	direct	-4148 Mar 21 j 20:53	16° <del>8</del> 53'02	
minimum elong	-4154 May 01 j 10:11	6° <del>8</del> 38'11	1°54'04	evening set	-4148 Jul 05 j 09:14	24° <del>8</del> 25'46	
max. Earth dist.	-4154 May 02 j 03:35	6° <del>8</del> 43'54	9.95038 AU				
morning rise	-4154 May 19 j 13:26	9° <del>8</del> 00'16		conjunction	-4148 Jul 22 j 18:55	26° <del>8</del> 30'34	1°05'00
retrograde	-4154 Sep 01 j 04:13	17° <del>8</del> 18'36		minimum elong	-4148 Jul 22 j 18:53	26° <del>8</del> 30'34	1°05'11
opposition	-4154 Nov 06 j 11:31	13° <del>8</del> 49'53	-2°-8'-9	max. Earth dist.	-4148 Jul 23 j 01:05	26° <del>8</del> 32'25	10.76554 AU
min. Earth dist.	-4154 Nov 05 j 22:34	13° <del>8</del> 52'35	7.99635 AU	morning rise	-4148 Aug 08 j 23:21	28° <del>8</del> 33'48	
direct	-4153 Jan 12 j 10:18	10° <del>8</del> 19'54			-4148 Aug 21 j 10:36	0° <del>8</del>	
evening set	-4153 Apr 28 j 14:49	18° <del>8</del> 39'52		retrograde	-4148 Nov 15 j 19:03	5° <del>8</del> 39'22	
				opposition	-4147 Jan 22 j 23:10	2° <del>8</del> 20'36	1°35'26
conjunction	-4153 May 16 j 18:44	21° <del>8</del> 00'34	-1°-29'-21	min. Earth dist.	-4147 Jan 22 j 19:37	2° <del>8</del> 21'17	8.83489 AU
minimum elong	-4153 May 16 j 18:48	21° <del>8</del> 00'35	1°29'19		-4147 Feb 25 j 20:23	30° <del>8</del>	
max. Earth dist.	-4153 May 17 j 11:57	21° <del>8</del> 06'09	10.04812 AU	direct	-4147 Apr 03 j 21:00	28° <del>8</del> 55'49	
morning rise	-4153 Jun 03 j 20:42	23° <del>8</del> 20'31			-4147 May 10 j 13:02	0° <del>8</del>	
	-4153 Aug 06 j 11:37	0° <del>8</del>		evening set	-4147 Jul 17 j 20:01	6° <del>8</del> 19'23	
retrograde	-4153 Sep 15 j 05:30	1° <del>8</del> 26'20					
	-4153 Oct 25 j 10:56	30° <del>8</del>		conjunction	-4147 Aug 04 j 00:18	8° <del>8</del> 20'59	1°30'11
opposition	-4153 Nov 20 j 14:15	27° <del>8</del> 59'14	-1°-33'-45	minimum elong	-4147 Aug 04 j 00:15	8° <del>8</del> 20'59	1°30'23
min. Earth dist.	-4153 Nov 20 j 01:18	28° <del>8</del> 01'54	8.10710 AU	max. Earth dist.	-4147 Aug 04 j 02:29	8° <del>8</del> 21'38	10.90103 AU
direct	-4152 Jan 27 j 04:53	24° <del>8</del> 29'32		morning rise	-4147 Aug 20 j 23:37	10° <del>8</del> 21'07	
	-4152 Apr 20 j 04:19	0° <del>8</del>		retrograde	-4147 Nov 27 j 11:52	17° <del>8</del> 19'01	
evening set	-4152 May 12 j 13:48	2° <del>8</del> 41'54		opposition	-4146 Feb 04 j 03:02	14° <del>8</del> 01'25	2°03'31
				min. Earth dist.	-4146 Feb 04 j 01:32	14° <del>8</del> 01'42	8.96296 AU
conjunction	-4152 May 30 j 16:19	5° <del>8</del> 00'07	0°-59'-51	direct	-4146 Apr 16 j 11:30	10° <del>8</del> 37'56	
minimum elong	-4152 May 30 j 16:22	5° <del>8</del> 00'08	0°59'46	evening set	-4146 Jul 29 j 20:31	17° <del>8</del> 53'18	
max. Earth dist.	-4152 May 31 j 08:41	5° <del>8</del> 05'22	10.17173 AU				
morning rise	-4152 Jun 17 j 15:41	7° <del>8</del> 17'15		conjunction	-4146 Aug 15 j 19:46	19° <del>8</del> 52'07	1°51'05
	-4152 Sep 14 j 17:11	15° <del>8</del>		minimum elong	-4146 Aug 15 j 19:43	19° <del>8</del> 52'07	1°51'16
retrograde	-4152 Sep 27 j 18:38	15° <del>8</del> 09'36		max. Earth dist.	-4146 Aug 15 j 19:22	19° <del>8</del> 52'00	11.01924 AU
	-4152 Oct 10 j 21:30	15° <del>8</del>		morning rise	-4146 Sep 01 j 14:15	21° <del>8</del> 49'35	
opposition	-4152 Dec 03 j 08:44	11° <del>8</del> 44'13	0°-54'-58	retrograde	-4146 Dec 08 j 23:43	28° <del>8</del> 41'41	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 22

Attention, astronomical year style is used: The year -4145 in astronomical counting style is the year 4146 BCE in historical counting style.

opposition	-4145 Feb 16 j 02:00	25° <del>25</del> 25'03	2°25'58	retrograde	-4139 Feb 13 j 10:24	4° <del>25</del> 35'37	
min. Earth dist.	-4145 Feb 16 j 02:54	25° <del>25</del> 24'53	9.07152 AU	opposition	-4139 Apr 25 j 10:50	1° <del>25</del> 18'35	2°30'41
direct	-4145 Apr 28 j 17:30	22° <del>25</del> 02'50		min. Earth dist.	-4139 Apr 26 j 00:49	1° <del>25</del> 16'02	9.16809 AU
evening set	-4145 Aug 10 j 12:29	29° <del>25</del> 11'11			-4139 May 13 j 21:47	30° <del>25</del> 00'00	
	-4145 Aug 17 j 14:24	0° <del>25</del> 00'00		direct	-4139 Jul 05 j 11:24	28° <del>25</del> 00'00	
					-4139 Aug 24 j 22:08	0° <del>25</del> 00'00	
conjunction	-4145 Aug 27 j 07:11	1° <del>25</del> 00'41	2°07'12	evening set	-4139 Oct 13 j 21:35	4° <del>25</del> 55'48	
minimum elong	-4145 Aug 27 j 07:09	1° <del>25</del> 00'40	2°07'22				
max. Earth dist.	-4145 Aug 27 j 04:07	1° <del>25</del> 00'47	11.11599 AU	conjunction	-4139 Oct 30 j 07:06	6° <del>25</del> 50'16	1°55'48
morning rise	-4145 Sep 12 j 21:31	3° <del>25</del> 00'00		minimum elong	-4139 Oct 30 j 07:08	6° <del>25</del> 50'16	1°55'47
retrograde	-4145 Dec 20 j 09:01	9° <del>25</del> 01'09		max. Earth dist.	-4139 Oct 29 j 14:58	6° <del>25</del> 45'32	11.12931 AU
opposition	-4144 Feb 27 j 21:11	6° <del>25</del> 35'13	2°42'24	morning rise	-4139 Nov 15 j 17:31	8° <del>25</del> 45'03	
min. Earth dist.	-4144 Feb 28 j 01:19	6° <del>25</del> 34'27	9.15690 AU	retrograde	-4138 Feb 25 j 07:46	15° <del>25</del> 46'25	
direct	-4144 May 09 j 16:47	3° <del>25</del> 14'10		opposition	-4138 May 07 j 10:38	12° <del>25</del> 28'14	2°10'06
evening set	-4144 Aug 20 j 21:28	10° <del>25</del> 16'49		min. Earth dist.	-4138 May 08 j 00:55	12° <del>25</del> 25'36	9.08639 AU
				direct	-4138 Jul 17 j 01:21	9° <del>25</del> 10'31	
conjunction	-4144 Sep 06 j 12:13	12° <del>25</del> 11'32	2°18'17	evening set	-4138 Oct 25 j 01:15	16° <del>25</del> 08'14	
minimum elong	-4144 Sep 06 j 12:12	12° <del>25</del> 11'32	2°18'25				
max. Earth dist.	-4144 Sep 06 j 05:27	12° <del>25</del> 09'35	11.18812 AU	conjunction	-4138 Nov 10 j 12:40	18° <del>25</del> 04'22	1°36'30
morning rise	-4144 Sep 22 j 23:28	14° <del>25</del> 05'17		minimum elong	-4138 Nov 10 j 12:43	18° <del>25</del> 04'22	1°36'26
	-4144 Oct 01 j 03:01	15° <del>25</del> 00'00		max. Earth dist.	-4138 Nov 09 j 20:58	17° <del>25</del> 59'43	11.03568 AU
retrograde	-4144 Dec 30 j 14:45	20° <del>25</del> 01'18		morning rise	-4138 Nov 27 j 01:40	20° <del>25</del> 01'03	
opposition	-4143 Mar 10 j 14:01	17° <del>25</del> 35'46	2°52'37	retrograde	-4137 Mar 09 j 14:26	27° <del>25</del> 10'24	
min. Earth dist.	-4143 Mar 10 j 21:09	17° <del>25</del> 34'28	9.21622 AU	opposition	-4137 May 19 j 15:19	23° <del>25</del> 50'49	1°44'04
	-4143 Apr 20 j 07:11	15° <del>25</del> 00'00		min. Earth dist.	-4137 May 20 j 05:04	23° <del>25</del> 48'17	8.98023 AU
direct	-4143 May 21 j 10:43	14° <del>25</del> 15'47		direct	-4137 Jul 28 j 17:53	20° <del>25</del> 32'48	
	-4143 Jun 21 j 05:33	15° <del>25</del> 00'00		evening set	-4137 Nov 05 j 10:48	27° <del>25</del> 34'56	
evening set	-4143 Sep 01 j 01:06	21° <del>25</del> 14'05		max. Earth dist.	-4137 Nov 21 j 08:32	29° <del>25</del> 28'23	10.91900 AU
conjunction	-4143 Sep 17 j 12:47	23° <del>25</del> 00'734	2°24'09	conjunction	-4137 Nov 22 j 00:42	29° <del>25</del> 33'13	1°13'00
minimum elong	-4143 Sep 17 j 12:47	23° <del>25</del> 00'734	2°24'16	minimum elong	-4137 Nov 22 j 00:44	29° <del>25</del> 33'14	1°12'55
max. Earth dist.	-4143 Sep 17 j 03:01	23° <del>25</del> 00'45	11.23332 AU		-4137 Nov 25 j 18:08	0° <del>25</del> 00'00	
morning rise	-4143 Oct 03 j 21:52	25° <del>25</del> 00'20		morning rise	-4137 Dec 08 j 17:06	1° <del>25</del> 00'00	
	-4143 Nov 24 j 16:10	0° <del>25</del> 00'00		retrograde	-4136 Mar 21 j 03:54	8° <del>25</del> 51'09	
retrograde	-4142 Jan 10 j 22:12	1° <del>25</del> 00'46'03		opposition	-4136 May 31 j 01:55	5° <del>25</del> 30'00	1°13'06
	-4142 Mar 01 j 00:06	30° <del>25</del> 00'00		min. Earth dist.	-4136 May 31 j 15:36	5° <del>25</del> 27'26	8.85265 AU
opposition	-4142 Mar 22 j 05:42	28° <del>25</del> 03'0'36	2°56'30	direct	-4136 Aug 08 j 12:35	2° <del>25</del> 11'23	
min. Earth dist.	-4142 Mar 22 j 14:34	28° <del>25</del> 02'8'59	9.24753 AU	evening set	-4136 Nov 16 j 04:03	9° <del>25</del> 19'41	
direct	-4142 Jun 02 j 02:51	25° <del>25</del> 01'1'31					
	-4142 Aug 23 j 14:28	0° <del>25</del> 00'00		conjunction	-4136 Dec 02 j 20:58	11° <del>25</del> 20'33	0°45'54
evening set	-4142 Sep 12 j 01:05	2° <del>25</del> 00'6'48		minimum elong	-4136 Dec 02 j 21:00	11° <del>25</del> 20'34	0°45'47
				max. Earth dist.	-4136 Dec 02 j 04:27	11° <del>25</del> 15'33	10.78287 AU
conjunction	-4142 Sep 28 j 10:52	3° <del>25</del> 00'59'41	2°24'46	morning rise	-4136 Dec 19 j 17:27	13° <del>25</del> 22'34	
minimum elong	-4142 Sep 28 j 10:53	3° <del>25</del> 00'59'41	2°24'52		-4135 Jan 02 j 17:07	15° <del>25</del> 00'00	
max. Earth dist.	-4142 Sep 27 j 23:39	3° <del>25</del> 00'56'26	11.25014 AU	retrograde	-4135 Apr 03 j 02:43	20° <del>25</del> 05'22'0	
morning rise	-4142 Oct 14 j 18:38	5° <del>25</del> 00'52'02		opposition	-4135 Jun 12 j 19:52	17° <del>25</del> 09'27	0°38'02
retrograde	-4141 Jan 22 j 07:07	12° <del>25</del> 00'39'11		min. Earth dist.	-4135 Jun 13 j 09:08	17° <del>25</del> 06'56	8.70813 AU
opposition	-4141 Apr 02 j 21:35	9° <del>25</del> 00'23'29	2°54'05		-4135 Jul 19 j 22:55	15° <del>25</del> 00'00	
min. Earth dist.	-4141 Apr 03 j 07:49	9° <del>25</del> 00'21'37	9.24987 AU	direct	-4135 Aug 20 j 16:16	14° <del>25</del> 09'59	
direct	-4141 Jun 13 j 13:58	6° <del>25</del> 00'05'08			-4135 Sep 20 j 17:47	15° <del>25</del> 00'00	
evening set	-4141 Sep 22 j 23:13	12° <del>25</del> 00'58'48		evening set	-4135 Nov 28 j 06:46	21° <del>25</del> 00'26'04	
conjunction	-4141 Oct 09 j 08:01	14° <del>25</del> 00'51'38	2°20'10	conjunction	-4135 Dec 15 j 03:19	23° <del>25</del> 00'29'57	0°16'01
minimum elong	-4141 Oct 09 j 08:03	14° <del>25</del> 00'51'39	2°20'14	minimum elong	-4135 Dec 15 j 03:19	23° <del>25</del> 00'29'57	0°15'53
max. Earth dist.	-4141 Oct 08 j 19:11	14° <del>25</del> 00'47'55	11.23805 AU	behind sun begin	-4135 Dec 15 j 01:56	23° <del>25</del> 00'29'32	
morning rise	-4141 Oct 25 j 15:37	16° <del>25</del> 00'44'14		behind sun end	-4135 Dec 15 j 04:42	23° <del>25</del> 00'30'22	
retrograde	-4140 Feb 02 j 19:05	23° <del>25</del> 00'34'28		max. Earth dist.	-4135 Dec 14 j 12:10	23° <del>25</del> 00'25'17	10.63263 AU
opposition	-4140 Apr 13 j 14:55	20° <del>25</del> 00'18'15	2°45'26	morning rise	-4134 Jan 01 j 04:11	25° <del>25</del> 00'35'12	
min. Earth dist.	-4140 Apr 14 j 03:13	20° <del>25</del> 00'16'00	9.22313 AU		-4134 Feb 10 j 11:11	0° <del>25</del> 00'00	
direct	-4140 Jun 24 j 00:36	17° <del>25</del> 00'00'21		retrograde	-4134 Apr 16 j 12:37	3° <del>25</del> 00'17'06	
evening set	-4140 Oct 02 j 21:31	23° <del>25</del> 00'53'54			-4134 Jun 24 j 06:11	30° <del>25</del> 00'00'00	
				opposition	-4134 Jun 25 j 21:44	29° <del>25</del> 00'52'24	0°00'00
conjunction	-4140 Oct 19 j 06:08	25° <del>25</del> 00'47'16	2°10'27	desc. node	-4134 Jun 25 j 16:59	29° <del>25</del> 00'53'19	
minimum elong	-4140 Oct 19 j 06:10	25° <del>25</del> 00'47'16	2°10'28	min. Earth dist.	-4134 Jun 26 j 09:27	29° <del>25</del> 00'50'09	8.55318 AU
max. Earth dist.	-4140 Oct 18 j 14:53	25° <del>25</del> 00'42'50	11.19736 AU	direct	-4134 Sep 02 j 02:42	26° <del>25</del> 00'31'51	
morning rise	-4140 Nov 04 j 14:42	27° <del>25</del> 00'40'40			-4134 Nov 05 j 18:48	0° <del>25</del> 00'00	
	-4140 Nov 25 j 21:33	0° <del>25</del> 00'00		evening set	-4134 Dec 10 j 21:07	3° <del>25</del> 00'57'12	

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Attention, astronomical year style is used: The year -4134 in astronomical counting style is the year 4135 BCE in historical counting style.

conjunction	-4134 Dec 27 j 21:42	6°♂04'20	0°-15'-34	minimum elong	-4127 Mar 23 j 16:45	0°♂15'37	2°22'46
minimum elong	-4134 Dec 27 j 21:41	6°♂04'20	0°15'44	max. Earth dist.	-4127 Mar 24 j 04:37	0°♂19'34	9.84053 AU
behind sun begin	-4134 Dec 27 j 20:04	6°♂03'50		morning rise	-4127 Apr 10 j 18:46	2°♂39'31	
behind sun end	-4134 Dec 27 j 23:18	6°♂04'50		retrograde	-4127 Jul 26 j 23:44	11°♂18'12	
max. Earth dist.	-4134 Dec 27 j 09:33	6°♂00'32	10.47535 AU	opposition	-4127 Oct 01 j 19:11	7°♂46'14	-2°-57'-22
morning rise	-4133 Jan 14 j 03:00	8°♂13'02		min. Earth dist.	-4127 Oct 01 j 08:52	7°♂48'24	7.84220 AU
retrograde	-4133 Apr 30 j 09:02	16°♂07'42		direct	-4127 Dec 06 j 17:38	4°♂16'24	
opposition	-4133 Jul 09 j 07:47	12°♂41'08	0°-39'-29	evening set	-4126 Mar 21 j 11:24	12°♂43'47	
min. Earth dist.	-4133 Jul 09 j 16:34	12°♂39'25	8.39547 AU				
direct	-4133 Sep 14 j 21:32	9°♂19'19		conjunction	-4126 Apr 08 j 13:18	15°♂07'20	-2°-17'-41
evening set	-4133 Dec 24 j 00:27	16°♂55'07		minimum elong	-4126 Apr 08 j 13:21	15°♂07'21	2°17'46
				max. Earth dist.	-4126 Apr 09 j 04:45	15°♂12'29	9.84955 AU
conjunction	-4132 Jan 10 j 05:07	19°♂05'38	0°-47'-17	morning rise	-4126 Apr 26 j 16:39	17°♂31'17	
minimum elong	-4132 Jan 10 j 05:05	19°♂05'37	0°47'28	retrograde	-4126 Aug 10 j 23:26	26°♂04'37	
max. Earth dist.	-4132 Jan 09 j 20:19	19°♂02'50	10.31904 AU	opposition	-4126 Oct 16 j 12:12	22°♂33'21	-2°-45'-13
morning rise	-4132 Jan 27 j 14:47	21°♂17'49		min. Earth dist.	-4126 Oct 15 j 23:30	22°♂36'02	7.87085 AU
retrograde	-4132 May 13 j 15:45	29°♂25'14		direct	-4126 Dec 21 j 17:57	19°♂02'56	
opposition	-4132 Jul 22 j 02:25	25°♂56'54	-1°-18'-22	evening set	-4125 Apr 06 j 04:28	27°♂29'54	
min. Earth dist.	-4132 Jul 22 j 07:44	25°♂55'51	8.24326 AU				
direct	-4132 Sep 27 j 02:14	22°♂33'41		conjunction	-4125 Apr 24 j 08:10	29°♂53'02	-2°-3'-43
	-4131 Jan 02 j 23:58	0°♂		minimum elong	-4125 Apr 24 j 08:14	29°♂53'03	2°03'44
evening set	-4131 Jan 05 j 17:30	0°♂20'40		max. Earth dist.	-4125 Apr 25 j 02:14	29°♂59'00	9.89801 AU
					-4125 Apr 25 j 05:13	0°♀	
conjunction	-4131 Jan 23 j 02:08	2°♂34'29	-1°-17'-26	morning rise	-4125 May 12 j 11:46	2°♀16'05	
minimum elong	-4131 Jan 23 j 02:05	2°♂34'28	1°17'38	retrograde	-4125 Aug 25 j 15:57	10°♀40'23	
max. Earth dist.	-4131 Jan 22 j 20:58	2°♂32'49	10.17222 AU	min. Earth dist.	-4125 Oct 30 j 10:40	7°♀13'15	7.93719 AU
morning rise	-4131 Feb 09 j 16:00	4°♂50'02		opposition	-4125 Oct 31 j 00:49	7°♀10'17	-2°-22'-25
retrograde	-4131 May 28 j 08:45	13°♂09'23		direct	-4124 Jan 05 j 17:28	3°♀39'41	
opposition	-4131 Aug 05 j 05:11	9°♂39'30	-1°-54'-15	evening set	-4124 Apr 20 j 16:42	12°♀02'52	
min. Earth dist.	-4131 Aug 05 j 06:58	9°♂39'09	8.10514 AU				
direct	-4131 Oct 10 j 15:46	6°♂14'46		conjunction	-4124 May 08 j 21:02	14°♀24'41	-1°-42'-1
evening set	-4130 Jan 20 j 00:36	14°♂13'05		minimum elong	-4124 May 08 j 21:07	14°♀24'42	1°42'01
				max. Earth dist.	-4124 May 09 j 16:18	14°♀30'59	9.98242 AU
conjunction	-4130 Feb 06 j 13:08	16°♂29'58	-1°-44'00	morning rise	-4124 May 26 j 23:48	16°♀45'57	
minimum elong	-4130 Feb 06 j 13:05	16°♂29'57	1°44'12	retrograde	-4124 Sep 07 j 23:11	24°♀58'31	
max. Earth dist.	-4130 Feb 06 j 11:43	16°♂29'31	10.04355 AU	opposition	-4124 Nov 13 j 07:08	21°♀29'58	-1°-51'-7
morning rise	-4130 Feb 24 j 06:54	18°♂48'35		min. Earth dist.	-4124 Nov 12 j 16:49	21°♀32'57	8.03665 AU
retrograde	-4130 Jun 12 j 08:59	27°♂17'56		direct	-4123 Jan 19 j 13:48	17°♀59'35	
opposition	-4130 Aug 19 j 14:51	23°♂46'51	-2°-24'-27	evening set	-4123 May 05 j 20:48	26°♀16'14	
min. Earth dist.	-4130 Aug 19 j 13:32	23°♂47'07	7.98946 AU				
direct	-4130 Oct 24 j 15:39	20°♂20'35		conjunction	-4123 May 24 j 00:24	28°♀35'54	-1°-14'-31
evening set	-4129 Feb 03 j 20:38	28°♂29'33		minimum elong	-4123 May 24 j 00:28	28°♀35'55	1°14'27
	-4129 Feb 15 j 08:34	0°♀		max. Earth dist.	-4123 May 24 j 19:15	28°♀41'58	10.09687 AU
conjunction	-4129 Feb 21 j 12:59	0°♀49'07	-2°-4'-53		-4123 Jun 03 j 21:34	0°♂	
minimum elong	-4129 Feb 21 j 12:56	0°♀49'06	2°05'04	morning rise	-4123 Jun 11 j 01:09	0°♂54'37	
max. Earth dist.	-4129 Feb 21 j 15:52	0°♀50'04	9.94113 AU	retrograde	-4123 Sep 21 j 18:54	8°♂53'56	
morning rise	-4129 Mar 11 j 10:07	3°♀10'14		opposition	-4123 Nov 27 j 05:50	5°♂27'15	-1°-14'-1
retrograde	-4129 Jun 27 j 13:51	11°♀46'40		min. Earth dist.	-4123 Nov 26 j 16:22	5°♂30'01	8.16254 AU
opposition	-4129 Sep 03 j 05:58	8°♀14'49	-2°-46'-19	direct	-4122 Feb 03 j 05:12	1°♂57'27	
min. Earth dist.	-4129 Sep 03 j 01:39	8°♀15'42	7.90359 AU	evening set	-4122 May 20 j 14:29	10°♂05'34	
direct	-4129 Nov 08 j 01:29	4°♀47'07		conjunction	-4122 Jun 07 j 15:50	12°♂22'23	0°-43'-22
evening set	-4128 Feb 19 j 03:19	13°♀05'03		minimum elong	-4122 Jun 07 j 15:52	12°♂22'24	0°43'16
	-4128 Mar 04 j 15:06	15°♀		max. Earth dist.	-4122 Jun 08 j 08:53	12°♂27'48	10.23373 AU
conjunction	-4128 Mar 07 j 23:13	15°♀26'42	-2°-18'-13	morning rise	-4122 Jun 25 j 13:22	14°♂37'58	
minimum elong	-4128 Mar 07 j 23:12	15°♀26'42	2°18'22		-4122 Jun 28 j 12:32	15°♂	
max. Earth dist.	-4128 Mar 08 j 06:46	15°♀29'13	9.87180 AU	retrograde	-4122 Oct 05 j 02:40	22°♂23'41	
morning rise	-4128 Mar 25 j 23:07	17°♀49'38		opposition	-4122 Dec 10 j 20:05	18°♂59'00	0°-33'-57
retrograde	-4128 Jul 11 j 19:53	26°♀29'22		min. Earth dist.	-4122 Dec 10 j 08:04	19°♂01'25	8.30703 AU
opposition	-4128 Sep 17 j 00:17	22°♀57'12	-2°-57'-43	direct	-4121 Feb 17 j 12:39	15°♂30'07	
min. Earth dist.	-4128 Sep 16 j 16:49	22°♀58'46	7.85332 AU	evening set	-4121 Jun 03 j 20:06	23°♂28'28	
direct	-4128 Nov 21 j 19:28	19°♀28'18		conjunction	-4121 Jun 21 j 17:56	25°♂42'00	0°-10'-45
evening set	-4127 Mar 05 j 17:34	27°♀52'35		minimum elong	-4121 Jun 21 j 17:57	25°♂42'00	0°10'38
	-4127 Mar 21 j 18:01	0°♂		behind sun begin	-4121 Jun 21 j 12:23	25°♂40'17	
conjunction	-4127 Mar 23 j 16:45	0°♂15'36	-2°-22'-39	behind sun end	-4121 Jun 21 j 23:31	25°♂43'44	
				max. Earth dist.	-4121 Jun 22 j 08:16	25°♂46'28	10.38477 AU

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 24

Attention, astronomical year style is used: The year -4121 in astronomical counting style is the year 4122 BCE in historical counting style.

morning rise	-4121 Jul 09 j 11:19	27° $\text{♄}$ 54'05		conjunction	-4115 Sep 01 j 17:52	7° $\text{♄}$ 19'32	2°13'40
	-4121 Jul 27 j 04:14	0° $\text{♄}$		minimum elong	-4115 Sep 01 j 17:50	7° $\text{♄}$ 19'31	2°13'49
retrograde	-4121 Oct 18 j 00:25	5° $\text{♄}$ 26'44		max. Earth dist.	-4115 Sep 01 j 12:04	7° $\text{♄}$ 17'51	11.16263 AU
asc. node	-4121 Oct 24 j 04:36	5° $\text{♄}$ 24'38		morning rise	-4115 Sep 18 j 06:30	9° $\text{♄}$ 13'58	
opposition	-4121 Dec 24 j 01:49	2° $\text{♄}$ 04'02	0°06'28		-4115 Nov 20 j 14:15	15° $\text{♄}$	
min. Earth dist.	-4121 Dec 23 j 15:10	2° $\text{♄}$ 06'09	8.46185 AU	retrograde	-4115 Dec 25 j 20:33	16° $\text{♄}$ 01'03	
	-4120 Jan 21 j 01:10	30° $\text{♄}$			-4114 Jan 30 j 23:00	15° $\text{♄}$	
direct	-4120 Mar 02 j 11:05	28° $\text{♄}$ 36'21		opposition	-4114 Mar 05 j 13:37	12° $\text{♄}$ 45'47	2°48'32
	-4120 Apr 12 j 13:25	0° $\text{♄}$		min. Earth dist.	-4114 Mar 05 j 19:09	12° $\text{♄}$ 44'46	9.19566 AU
evening set	-4120 Jun 16 j 12:57	6° $\text{♄}$ 24'24		direct	-4114 May 16 j 09:56	9° $\text{♄}$ 25'44	
					-4114 Aug 14 j 07:55	15° $\text{♄}$	
conjunction	-4120 Jul 04 j 06:23	8° $\text{♄}$ 34'26	0°21'30	evening set	-4114 Aug 27 j 07:45	16° $\text{♄}$ 26'14	
minimum elong	-4120 Jul 04 j 06:22	8° $\text{♄}$ 34'25	0°21'40				
max. Earth dist.	-4120 Jul 04 j 17:54	8° $\text{♄}$ 37'58	10.54164 AU	conjunction	-4114 Sep 12 j 20:55	18° $\text{♄}$ 20'17	2°21'59
morning rise	-4120 Jul 21 j 18:51	10° $\text{♄}$ 42'53		minimum elong	-4114 Sep 12 j 20:54	18° $\text{♄}$ 20'17	2°22'06
retrograde	-4120 Oct 29 j 12:10	18° $\text{♄}$ 03'38		max. Earth dist.	-4114 Sep 12 j 12:38	18° $\text{♄}$ 17'53	11.21791 AU
opposition	-4119 Jan 04 j 23:14	14° $\text{♄}$ 42'48	0°45'06	morning rise	-4114 Sep 29 j 06:46	20° $\text{♄}$ 13'28	
min. Earth dist.	-4119 Jan 04 j 14:14	14° $\text{♄}$ 44'34	8.61867 AU	retrograde	-4113 Jan 06 j 04:36	26° $\text{♄}$ 59'28	
direct	-4119 Mar 16 j 00:19	11° $\text{♄}$ 16'27		opposition	-4113 Mar 17 j 06:20	23° $\text{♄}$ 44'19	2°55'23
evening set	-4119 Jun 29 j 17:29	18° $\text{♄}$ 54'19		min. Earth dist.	-4113 Mar 17 j 14:59	23° $\text{♄}$ 42'45	9.23695 AU
				direct	-4113 May 28 j 02:50	20° $\text{♄}$ 25'06	
conjunction	-4119 Jul 17 j 05:54	21° $\text{♄}$ 00'50	0°51'43	evening set	-4113 Sep 07 j 09:54	27° $\text{♄}$ 22'00	
minimum elong	-4119 Jul 17 j 05:51	21° $\text{♄}$ 00'49	0°51'54				
max. Earth dist.	-4119 Jul 17 j 14:50	21° $\text{♄}$ 03'32	10.69627 AU	conjunction	-4113 Sep 23 j 20:29	29° $\text{♄}$ 15'10	2°25'03
morning rise	-4119 Aug 03 j 12:56	23° $\text{♄}$ 05'45		minimum elong	-4113 Sep 23 j 20:29	29° $\text{♄}$ 15'10	2°25'09
	-4119 Oct 24 j 06:21	0° $\text{♄}$		max. Earth dist.	-4113 Sep 23 j 08:44	29° $\text{♄}$ 11'46	11.24443 AU
retrograde	-4119 Nov 10 j 15:59	0° $\text{♄}$ 16'05			-4113 Sep 30 j 07:53	0° $\text{♄}$	
	-4119 Nov 28 j 04:02	30° $\text{♄}$		morning rise	-4113 Oct 10 j 04:46	1° $\text{♄}$ 07'42	
opposition	-4118 Jan 17 j 13:05	26° $\text{♄}$ 56'58	1°20'19	retrograde	-4112 Jan 17 j 11:17	7° $\text{♄}$ 54'17	
min. Earth dist.	-4118 Jan 17 j 06:36	26° $\text{♄}$ 58'13	8.76984 AU	opposition	-4112 Mar 27 j 22:22	4° $\text{♄}$ 38'54	2°55'54
direct	-4118 Mar 29 j 04:12	23° $\text{♄}$ 32'00		min. Earth dist.	-4112 Mar 28 j 09:48	4° $\text{♄}$ 36'49	9.24900 AU
	-4118 Jul 03 j 17:29	0° $\text{♄}$		direct	-4112 Jun 07 j 15:42	1° $\text{♄}$ 20'16	
evening set	-4118 Jul 12 j 10:16	1° $\text{♄}$ 00'14		evening set	-4112 Sep 17 j 09:13	8° $\text{♄}$ 14'57	
conjunction	-4118 Jul 29 j 17:17	3° $\text{♄}$ 03'24	1°18'46	conjunction	-4112 Oct 03 j 18:18	10° $\text{♄}$ 07'49	2°22'52
minimum elong	-4118 Jul 29 j 17:15	3° $\text{♄}$ 03'23	1°18'57	minimum elong	-4112 Oct 03 j 18:19	10° $\text{♄}$ 07'49	2°22'57
max. Earth dist.	-4118 Jul 29 j 23:09	3° $\text{♄}$ 05'09	10.84152 AU	max. Earth dist.	-4112 Oct 03 j 04:03	10° $\text{♄}$ 03'41	11.24182 AU
morning rise	-4118 Aug 15 j 18:54	5° $\text{♄}$ 04'59		morning rise	-4112 Oct 20 j 02:02	12° $\text{♄}$ 00'19	
retrograde	-4118 Nov 22 j 12:46	12° $\text{♄}$ 06'40		retrograde	-4111 Jan 27 j 21:12	18° $\text{♄}$ 49'14	
opposition	-4117 Jan 29 j 20:29	8° $\text{♄}$ 49'00	1°50'54	opposition	-4111 Apr 08 j 15:12	15° $\text{♄}$ 33'13	2°50'09
min. Earth dist.	-4117 Jan 29 j 17:28	8° $\text{♄}$ 49'35	8.90864 AU	min. Earth dist.	-4111 Apr 09 j 04:03	15° $\text{♄}$ 30'53	9.23164 AU
direct	-4117 Apr 10 j 21:43	5° $\text{♄}$ 25'25		direct	-4111 Jun 19 j 05:05	12° $\text{♄}$ 14'58	
evening set	-4117 Jul 24 j 16:07	12° $\text{♄}$ 44'51		evening set	-4111 Sep 28 j 07:22	19° $\text{♄}$ 08'48	
conjunction	-4117 Aug 10 j 17:45	14° $\text{♄}$ 44'59	1°41'47	conjunction	-4111 Oct 14 j 16:05	21° $\text{♄}$ 01'57	2°15'30
minimum elong	-4117 Aug 10 j 17:42	14° $\text{♄}$ 44'58	1°41'58	minimum elong	-4111 Oct 14 j 16:07	21° $\text{♄}$ 01'58	2°15'33
max. Earth dist.	-4117 Aug 10 j 19:21	14° $\text{♄}$ 45'27	10.97111 AU	max. Earth dist.	-4111 Oct 14 j 01:13	20° $\text{♄}$ 57'38	11.21023 AU
morning rise	-4117 Aug 27 j 14:27	16° $\text{♄}$ 43'41		morning rise	-4111 Oct 31 j 00:06	22° $\text{♄}$ 55'00	
retrograde	-4117 Dec 04 j 01:36	23° $\text{♄}$ 38'34		retrograde	-4110 Feb 08 j 12:15	29° $\text{♄}$ 47'54	
opposition	-4116 Feb 10 j 22:12	20° $\text{♄}$ 22'02	2°16'05	opposition	-4110 Apr 20 j 10:03	26° $\text{♄}$ 30'59	2°38'13
min. Earth dist.	-4116 Feb 10 j 22:33	20° $\text{♄}$ 21'58	9.02903 AU	min. Earth dist.	-4110 Apr 20 j 23:29	26° $\text{♄}$ 28'32	9.18555 AU
direct	-4116 Apr 22 j 08:27	16° $\text{♄}$ 59'43		direct	-4110 Jun 30 j 16:41	23° $\text{♄}$ 12'54	
evening set	-4116 Aug 04 j 12:40	24° $\text{♄}$ 11'32			-4110 Oct 08 j 04:51	0° $\text{♄}$	
				evening set	-4110 Oct 09 j 06:31	0° $\text{♄}$ 07'19	
conjunction	-4116 Aug 21 j 09:21	26° $\text{♄}$ 09'04	2°00'12				
minimum elong	-4116 Aug 21 j 09:18	26° $\text{♄}$ 09'03	2°00'22	conjunction	-4110 Oct 25 j 15:42	2° $\text{♄}$ 01'20	2°03'07
max. Earth dist.	-4116 Aug 21 j 06:32	26° $\text{♄}$ 08'15	11.07958 AU	minimum elong	-4110 Oct 25 j 15:44	2° $\text{♄}$ 01'21	2°03'07
morning rise	-4116 Sep 07 j 01:43	28° $\text{♄}$ 05'22		max. Earth dist.	-4110 Oct 24 j 23:45	1° $\text{♄}$ 56'41	11.15080 AU
	-4116 Sep 24 j 07:29	0° $\text{♄}$		morning rise	-4110 Nov 11 j 01:05	3° $\text{♄}$ 55'32	
retrograde	-4116 Dec 14 j 12:28	4° $\text{♄}$ 55'23		retrograde	-4109 Feb 20 j 06:44	10° $\text{♄}$ 54'04	
opposition	-4115 Feb 21 j 19:18	1° $\text{♄}$ 39'38	2°35'23	opposition	-4109 May 02 j 08:02	7° $\text{♄}$ 35'59	2°20'19
min. Earth dist.	-4115 Feb 21 j 22:24	1° $\text{♄}$ 39'04	9.12583 AU	min. Earth dist.	-4109 May 02 j 22:30	7° $\text{♄}$ 33'19	9.11238 AU
	-4115 Mar 17 j 06:59	30° $\text{♄}$		direct	-4109 Jul 12 j 03:39	4° $\text{♄}$ 17'47	
direct	-4115 May 04 j 13:16	28° $\text{♄}$ 18'31		evening set	-4109 Oct 20 j 08:25	11° $\text{♄}$ 14'24	
	-4115 Jun 20 j 14:09	0° $\text{♄}$					
evening set	-4115 Aug 16 j 01:20	5° $\text{♄}$ 24'01		conjunction	-4109 Nov 05 j 18:53	13° $\text{♄}$ 09'50	1°45'56
				minimum elong	-4109 Nov 05 j 18:56	13° $\text{♄}$ 09'51	1°45'53

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 25

Attention, astronomical year style is used: The year -4109 in astronomical counting style is the year 4110 BCE in historical counting style.

max. Earth dist.	-4109 Nov 05 j 01:32	13° $\mathbf{\Delta}$ 04'43	11.06554 AU	conjunction	-4102 Jan 17 j 01:37	26° $\mathbf{\Delta}$ 35'16	-1°-3'-54
morning rise	-4109 Nov 22 j 06:44	15° $\mathbf{\Delta}$ 05'44		minimum elong	-4102 Jan 17 j 01:34	26° $\mathbf{\Delta}$ 35'15	1°04'05
retrograde	-4108 Mar 03 j 08:03	22° $\mathbf{\Delta}$ 11'32		max. Earth dist.	-4102 Jan 16 j 19:12	26° $\mathbf{\Delta}$ 33'12	10.23307 AU
opposition	-4108 May 13 j 10:26	18° $\mathbf{\Delta}$ 52'03	1°56'44	morning rise	-4102 Feb 03 j 13:41	28° $\mathbf{\Delta}$ 49'22	
min. Earth dist.	-4108 May 14 j 01:43	18° $\mathbf{\Delta}$ 49'14	9.01449 AU		-4102 Feb 13 j 01:22	0° $\mathbf{\Delta}$	
direct	-4108 Jul 22 j 18:43	15° $\mathbf{\Delta}$ 33'33		retrograde	-4102 May 21 j 23:34	7° $\mathbf{\Delta}$ 03'33	
evening set	-4108 Oct 30 j 14:59	22° $\mathbf{\Delta}$ 33'55		opposition	-4102 Jul 30 j 03:14	3° $\mathbf{\Delta}$ 34'17	-1°-38'-18
max. Earth dist.	-4108 Nov 15 j 10:27	24° $\mathbf{\Delta}$ 26'10	10.95712 AU	min. Earth dist.	-4102 Jul 30 j 06:34	3° $\mathbf{\Delta}$ 33'36	8.16356 AU
				direct	-4102 Oct 04 j 19:31	0° $\mathbf{\Delta}$ 10'12	
conjunction	-4108 Nov 16 j 03:37	24° $\mathbf{\Delta}$ 31'17	1°24'19	evening set	-4101 Jan 13 j 19:42	8° $\mathbf{\Delta}$ 03'31	
minimum elong	-4108 Nov 16 j 03:39	24° $\mathbf{\Delta}$ 31'18	1°24'13				
morning rise	-4108 Dec 02 j 18:33	26° $\mathbf{\Delta}$ 29'25		conjunction	-4101 Jan 31 j 06:31	10° $\mathbf{\Delta}$ 19'03	-1°-32'-21
	-4107 Jan 04 j 03:46	0° $\mathbf{\Delta}$		minimum elong	-4101 Jan 31 j 06:27	10° $\mathbf{\Delta}$ 19'02	1°32'33
retrograde	-4107 Mar 15 j 16:41	3° $\mathbf{\Delta}$ 44'05		max. Earth dist.	-4101 Jan 31 j 04:51	10° $\mathbf{\Delta}$ 18'30	10.09920 AU
opposition	-4107 May 25 j 18:19	0° $\mathbf{\Delta}$ 23'01	1°27'57	morning rise	-4101 Feb 17 j 22:28	12° $\mathbf{\Delta}$ 36'19	
min. Earth dist.	-4107 May 26 j 08:55	0° $\mathbf{\Delta}$ 20'17	8.89516 AU	retrograde	-4101 Jun 05 j 20:42	21° $\mathbf{\Delta}$ 01'30	
	-4107 May 30 j 21:58	30° $\mathbf{\Delta}$ 0		opposition	-4101 Aug 13 j 09:55	17° $\mathbf{\Delta}$ 31'04	-2°-11'-25
direct	-4107 Aug 03 j 13:24	27° $\mathbf{\Delta}$ 04'01		min. Earth dist.	-4101 Aug 13 j 09:20	17° $\mathbf{\Delta}$ 31'11	8.04076 AU
	-4107 Oct 03 j 03:28	0° $\mathbf{\Delta}$		direct	-4101 Oct 18 j 15:15	14° $\mathbf{\Delta}$ 05'42	
evening set	-4107 Nov 11 j 04:16	4° $\mathbf{\Delta}$ 09'46		evening set	-4100 Jan 28 j 10:08	22° $\mathbf{\Delta}$ 10'01	
conjunction	-4107 Nov 27 j 19:53	6° $\mathbf{\Delta}$ 09'34	0°58'46	conjunction	-4100 Feb 15 j 00:48	24° $\mathbf{\Delta}$ 28'25	-1°-56'-5
minimum elong	-4107 Nov 27 j 19:55	6° $\mathbf{\Delta}$ 09'34	0°58'40	minimum elong	-4100 Feb 15 j 00:45	24° $\mathbf{\Delta}$ 28'23	1°56'16
max. Earth dist.	-4107 Nov 27 j 04:12	6° $\mathbf{\Delta}$ 04'49	10.82920 AU	max. Earth dist.	-4100 Feb 15 j 04:00	24° $\mathbf{\Delta}$ 29'28	9.98788 AU
morning rise	-4107 Dec 14 j 14:26	8° $\mathbf{\Delta}$ 10'21		morning rise	-4100 Mar 03 j 20:15	26° $\mathbf{\Delta}$ 48'24	
	-4106 Mar 01 j 14:35	15° $\mathbf{\Delta}$			-4100 Mar 29 j 19:00	0° $\mathbf{\Delta}$	
retrograde	-4106 Mar 28 j 12:18	15° $\mathbf{\Delta}$ 35'22		retrograde	-4100 Jun 20 j 00:11	5° $\mathbf{\Delta}$ 22'07	
	-4106 Apr 24 j 17:14	15° $\mathbf{\Delta}$ 0		opposition	-4100 Aug 26 j 23:00	1° $\mathbf{\Delta}$ 50'53	-2°-37'-22
opposition	-4106 Jun 07 j 08:49	12° $\mathbf{\Delta}$ 12'36	0°54'38	min. Earth dist.	-4100 Aug 26 j 18:25	1° $\mathbf{\Delta}$ 51'49	7.94449 AU
min. Earth dist.	-4106 Jun 07 j 21:41	12° $\mathbf{\Delta}$ 10'10	8.75868 AU		-4100 Sep 19 j 14:49	30° $\mathbf{\Delta}$ 0	
direct	-4106 Aug 15 j 13:59	8° $\mathbf{\Delta}$ 52'55		direct	-4100 Oct 31 j 20:32	28° $\mathbf{\Delta}$ 24'16	
	-4106 Nov 13 j 19:56	15° $\mathbf{\Delta}$			-4100 Dec 12 j 04:51	0° $\mathbf{\Delta}$	
evening set	-4106 Nov 23 j 02:22	16° $\mathbf{\Delta}$ 05'37		evening set	-4099 Feb 11 j 12:23	6° $\mathbf{\Delta}$ 38'18	
conjunction	-4106 Dec 09 j 21:23	18° $\mathbf{\Delta}$ 08'15	0°30'02	conjunction	-4099 Mar 01 j 06:43	8° $\mathbf{\Delta}$ 59'01	-2°-13'-3
minimum elong	-4106 Dec 09 j 21:24	18° $\mathbf{\Delta}$ 08'15	0°29'54	minimum elong	-4099 Mar 01 j 06:41	8° $\mathbf{\Delta}$ 59'01	2°13'13
max. Earth dist.	-4106 Dec 09 j 07:05	18° $\mathbf{\Delta}$ 03'52	10.68650 AU	max. Earth dist.	-4099 Mar 01 j 14:27	9° $\mathbf{\Delta}$ 01'35	9.90673 AU
morning rise	-4106 Dec 26 j 20:07	20° $\mathbf{\Delta}$ 12'07		morning rise	-4099 Mar 19 j 05:12	11° $\mathbf{\Delta}$ 21'08	
retrograde	-4105 Apr 10 j 18:06	27° $\mathbf{\Delta}$ 48'40			-4099 Apr 17 j 21:28	15° $\mathbf{\Delta}$	
opposition	-4105 Jun 20 j 06:52	24° $\mathbf{\Delta}$ 24'11	0°17'46	retrograde	-4099 Jul 05 j 06:54	19° $\mathbf{\Delta}$ 59'52	
min. Earth dist.	-4105 Jun 20 j 17:49	24° $\mathbf{\Delta}$ 22'05	8.61033 AU	opposition	-4099 Sep 10 j 16:24	16° $\mathbf{\Delta}$ 28'15	-2°-53'-43
direct	-4105 Aug 27 j 19:05	21° $\mathbf{\Delta}$ 03'37		min. Earth dist.	-4099 Sep 10 j 08:36	16° $\mathbf{\Delta}$ 29'52	7.88130 AU
evening set	-4105 Dec 05 j 11:13	28° $\mathbf{\Delta}$ 24'51			-4099 Sep 28 j 22:27	15° $\mathbf{\Delta}$ 0	
desc. node	-4105 Dec 11 j 07:00	29° $\mathbf{\Delta}$ 07'43		direct	-4099 Nov 15 j 10:07	13° $\mathbf{\Delta}$ 00'28	
	-4105 Dec 18 j 07:39	0° $\mathbf{\Delta}$			-4099 Dec 31 j 19:58	15° $\mathbf{\Delta}$	
				evening set	-4098 Feb 27 j 00:00	21° $\mathbf{\Delta}$ 21'59	
conjunction	-4105 Dec 22 j 09:53	0° $\mathbf{\Delta}$ 30'34	0°00'-57				
minimum elong	-4105 Dec 22 j 09:52	0° $\mathbf{\Delta}$ 30'34	0°01'07	conjunction	-4098 Mar 16 j 21:40	23° $\mathbf{\Delta}$ 44'22	-2°-21'-39
behind sun begin	-4105 Dec 22 j 02:47	0° $\mathbf{\Delta}$ 28'23		minimum elong	-4098 Mar 16 j 21:40	23° $\mathbf{\Delta}$ 44'22	2°21'47
behind sun end	-4105 Dec 22 j 16:57	0° $\mathbf{\Delta}$ 32'45		max. Earth dist.	-4098 Mar 17 j 09:16	23° $\mathbf{\Delta}$ 48'14	9.86139 AU
max. Earth dist.	-4105 Dec 21 j 20:46	0° $\mathbf{\Delta}$ 26'30	10.53479 AU	morning rise	-4098 Apr 03 j 22:37	26° $\mathbf{\Delta}$ 07'48	
morning rise	-4104 Jan 08 j 13:07	2° $\mathbf{\Delta}$ 37'47			-4098 May 05 j 11:08	0° $\mathbf{\Delta}$	
retrograde	-4104 Apr 23 j 09:14	10° $\mathbf{\Delta}$ 26'46		retrograde	-4098 Jul 20 j 13:08	4° $\mathbf{\Delta}$ 47'18	
opposition	-4104 Jul 02 j 13:06	7° $\mathbf{\Delta}$ 00'34	0°-21'-17	opposition	-4098 Sep 25 j 11:27	1° $\mathbf{\Delta}$ 15'45	-2°-58'-47
min. Earth dist.	-4104 Jul 02 j 22:16	6° $\mathbf{\Delta}$ 58'47	8.45656 AU	min. Earth dist.	-4098 Sep 25 j 01:20	1° $\mathbf{\Delta}$ 17'52	7.85539 AU
direct	-4104 Sep 08 j 09:23	3° $\mathbf{\Delta}$ 38'56			-4098 Oct 10 j 21:46	30° $\mathbf{\Delta}$ 0	
evening set	-4104 Dec 17 j 08:21	11° $\mathbf{\Delta}$ 10'05		direct	-4098 Nov 30 j 05:47	27° $\mathbf{\Delta}$ 46'57	
					-4097 Jan 18 j 11:54	0° $\mathbf{\Delta}$	
conjunction	-4103 Jan 03 j 10:56	13° $\mathbf{\Delta}$ 19'06	0°-32'-47	evening set	-4097 Mar 14 j 16:54	6° $\mathbf{\Delta}$ 12'56	
minimum elong	-4103 Jan 03 j 10:55	13° $\mathbf{\Delta}$ 19'05	0°32'57				
max. Earth dist.	-4103 Jan 03 j 00:30	13° $\mathbf{\Delta}$ 15'48	10.38104 AU	conjunction	-4097 Apr 01 j 17:26	8° $\mathbf{\Delta}$ 36'11	-2°-20'-58
morning rise	-4103 Jan 20 j 18:42	15° $\mathbf{\Delta}$ 29'46		minimum elong	-4097 Apr 01 j 17:28	8° $\mathbf{\Delta}$ 36'11	2°21'03
retrograde	-4103 May 07 j 10:55	23° $\mathbf{\Delta}$ 31'34		max. Earth dist.	-4097 Apr 02 j 07:55	8° $\mathbf{\Delta}$ 41'00	9.85467 AU
opposition	-4103 Jul 16 j 04:00	20° $\mathbf{\Delta}$ 03'44	-1°00'-43	morning rise	-4097 Apr 19 j 20:08	11° $\mathbf{\Delta}$ 00'03	
min. Earth dist.	-4103 Jul 16 j 10:42	20° $\mathbf{\Delta}$ 02'24	8.30494 AU	retrograde	-4097 Aug 04 j 15:48	19° $\mathbf{\Delta}$ 35'55	
direct	-4103 Sep 21 j 10:00	16° $\mathbf{\Delta}$ 40'55		opposition	-4097 Oct 10 j 05:44	16° $\mathbf{\Delta}$ 04'54	-2°-51'-55
evening set	-4103 Dec 30 j 18:53	24° $\mathbf{\Delta}$ 22'55		min. Earth dist.	-4097 Oct 09 j 18:10	16° $\mathbf{\Delta}$ 07'20	7.86777 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 26

Attention, astronomical year style is used: The year -4097 in astronomical counting style is the year 4098 BCE in historical counting style.

direct	-4097 Dec 15 j 05:55	12° <del>✕</del> 35'20		behind sun end	-4091 Jun 28 j 22:35	3° <del>Π</del> 07'40	
evening set	-4096 Mar 29 j 10:36	21° <del>✕</del> 02'23		max. Earth dist.	-4091 Jun 29 j 04:47	3° <del>Π</del> 09'36	10.46345 AU
				morning rise	-4091 Jul 16 j 06:42	5° <del>Π</del> 15'52	
conjunction	-4096 Apr 16 j 13:20	23° <del>✕</del> 25'38	-2°-10'-59	retrograde	-4091 Oct 24 j 09:43	12° <del>Π</del> 42'20	
minimum elong	-4096 Apr 16 j 13:23	23° <del>✕</del> 25'39	2°11'02	opposition	-4091 Dec 30 j 15:02	9° <del>Π</del> 20'33	0°28'10
max. Earth dist.	-4096 Apr 17 j 05:27	23° <del>✕</del> 30'58	9.88592 AU	min. Earth dist.	-4091 Dec 30 j 06:36	9° <del>Π</del> 22'13	8.53884 AU
morning rise	-4096 May 04 j 16:55	25° <del>✕</del> 49'02		direct	-4090 Mar 10 j 08:09	5° <del>Π</del> 53'23	
	-4096 Jun 08 j 07:50	0° <del>Υ</del>		evening set	-4090 Jun 24 j 06:52	13° <del>Π</del> 36'19	
retrograde	-4096 Aug 18 j 11:48	4° <del>Υ</del> 17'28					
opposition	-4096 Oct 23 j 20:40	0° <del>Υ</del> 47'26	-2°-33'-46	conjunction	-4090 Jul 11 j 21:39	15° <del>Π</del> 44'34	0°38'33
min. Earth dist.	-4096 Oct 23 j 08:20	0° <del>Υ</del> 50'01	7.91638 AU	minimum elong	-4090 Jul 11 j 21:37	15° <del>Π</del> 44'33	0°38'43
	-4096 Nov 02 j 09:14	30° <del>℞</del>		max. Earth dist.	-4090 Jul 12 j 06:45	15° <del>Π</del> 47'20	10.61588 AU
direct	-4096 Dec 29 j 07:05	27° <del>✕</del> 17'28		morning rise	-4090 Jul 29 j 07:14	17° <del>Π</del> 51'13	
	-4095 Feb 22 j 19:34	0° <del>Υ</del>		retrograde	-4090 Nov 05 j 15:54	25° <del>Π</del> 06'33	
evening set	-4095 Apr 14 j 01:31	5° <del>Υ</del> 42'24		opposition	-4089 Jan 12 j 08:40	21° <del>Π</del> 46'23	1°05'08
				min. Earth dist.	-4089 Jan 12 j 02:32	21° <del>Π</del> 47'35	8.68973 AU
conjunction	-4095 May 02 j 05:30	8° <del>Υ</del> 04'47	-1°-52'-36	direct	-4089 Mar 23 j 17:40	18° <del>Π</del> 20'23	
minimum elong	-4095 May 02 j 05:35	8° <del>Υ</del> 04'48	1°52'37	evening set	-4089 Jul 07 j 05:08	25° <del>Π</del> 53'24	
max. Earth dist.	-4095 May 02 j 22:17	8° <del>Υ</del> 10'18	9.95213 AU				
morning rise	-4095 May 20 j 08:56	10° <del>Υ</del> 26'53		conjunction	-4089 Jul 24 j 14:35	27° <del>Π</del> 58'12	1°07'10
retrograde	-4095 Sep 01 j 22:46	18° <del>Υ</del> 44'54		minimum elong	-4089 Jul 24 j 14:33	27° <del>Π</del> 58'12	1°07'21
opposition	-4095 Nov 07 j 06:05	15° <del>Υ</del> 16'14	-2°-6'-2	max. Earth dist.	-4089 Jul 24 j 20:08	27° <del>Π</del> 59'53	10.76288 AU
min. Earth dist.	-4095 Nov 06 j 17:11	15° <del>Υ</del> 18'55	7.99792 AU	morning rise	-4089 Aug 10 j 18:54	0° <del>☾</del> 01'26	
direct	-4094 Jan 13 j 06:15	11° <del>Υ</del> 46'14			-4089 Aug 10 j 14:01	0° <del>☾</del>	
evening set	-4094 Apr 29 j 10:02	20° <del>Υ</del> 06'08		retrograde	-4089 Nov 17 j 15:12	7° <del>☾</del> 07'18	
				opposition	-4088 Jan 24 j 19:00	3° <del>☾</del> 48'32	1°37'57
conjunction	-4094 May 17 j 14:03	22° <del>Υ</del> 26'49	-1°-27'-28	min. Earth dist.	-4088 Jan 24 j 14:50	3° <del>☾</del> 49'20	8.83207 AU
minimum elong	-4094 May 17 j 14:07	22° <del>Υ</del> 26'50	1°27'26	direct	-4088 Apr 04 j 16:45	0° <del>☾</del> 23'48	
max. Earth dist.	-4094 May 18 j 07:00	22° <del>Υ</del> 32'19	10.04941 AU	evening set	-4088 Jul 18 j 15:54	7° <del>☾</del> 47'36	
morning rise	-4094 Jun 04 j 16:02	24° <del>Υ</del> 46'46					
	-4094 Jul 20 j 17:33	0° <del>♄</del>		conjunction	-4088 Aug 04 j 20:06	9° <del>☾</del> 49'14	1°32'06
retrograde	-4094 Sep 15 j 23:17	2° <del>♄</del> 52'23		minimum elong	-4088 Aug 04 j 20:03	9° <del>☾</del> 49'13	1°32'17
	-4094 Nov 14 j 07:21	30° <del>℞</del> <del>Υ</del>		max. Earth dist.	-4088 Aug 04 j 22:52	9° <del>☾</del> 50'03	10.89802 AU
opposition	-4094 Nov 21 j 08:44	29° <del>Υ</del> 25'19	-1°-31'-13	morning rise	-4088 Aug 21 j 19:11	11° <del>☾</del> 49'23	
min. Earth dist.	-4094 Nov 20 j 19:33	29° <del>Υ</del> 28'02	8.10792 AU	retrograde	-4088 Nov 28 j 08:02	18° <del>☾</del> 47'34	
direct	-4093 Jan 28 j 00:55	25° <del>Υ</del> 55'39		opposition	-4087 Feb 04 j 23:10	15° <del>☾</del> 29'59	2°05'40
	-4093 Apr 08 j 20:01	0° <del>♄</del>		min. Earth dist.	-4087 Feb 04 j 21:20	15° <del>☾</del> 30'20	8.95980 AU
evening set	-4093 May 14 j 09:05	4° <del>♄</del> 08'02		direct	-4087 Apr 17 j 07:20	12° <del>☾</del> 06'31	
				evening set	-4087 Jul 30 j 16:38	19° <del>☾</del> 22'07	
conjunction	-4093 Jun 01 j 11:41	6° <del>♄</del> 26'15	0°-57'-41				
minimum elong	-4093 Jun 01 j 11:43	6° <del>♄</del> 26'16	0°57'36	conjunction	-4087 Aug 16 j 15:45	21° <del>☾</del> 20'57	1°52'39
max. Earth dist.	-4093 Jun 02 j 04:15	6° <del>♄</del> 31'33	10.17210 AU	minimum elong	-4087 Aug 16 j 15:42	21° <del>☾</del> 20'56	1°52'49
morning rise	-4093 Jun 19 j 10:54	8° <del>♄</del> 43'21		max. Earth dist.	-4087 Aug 16 j 15:57	21° <del>☾</del> 21'01	11.01593 AU
	-4093 Aug 18 j 11:47	15° <del>♄</del>		morning rise	-4087 Sep 02 j 09:59	23° <del>☾</del> 18'26	
retrograde	-4093 Sep 29 j 13:14	16° <del>♄</del> 35'39			-4087 Nov 25 j 06:43	0° <del>♏</del>	
	-4093 Nov 11 j 09:16	15° <del>℞</del> <del>♄</del>		retrograde	-4087 Dec 09 j 21:09	0° <del>♏</del> 10'49	
opposition	-4093 Dec 05 j 03:21	13° <del>♄</del> 10'19	0°-52'-9		-4087 Dec 24 j 11:59	30° <del>℞</del> <del>☾</del>	
min. Earth dist.	-4093 Dec 04 j 14:41	13° <del>♄</del> 12'54	8.23997 AU	opposition	-4086 Feb 16 j 22:28	26° <del>☾</del> 54'11	2°27'40
direct	-4092 Feb 11 j 11:41	9° <del>♄</del> 41'16		min. Earth dist.	-4086 Feb 16 j 23:49	26° <del>☾</del> 53'56	9.06818 AU
	-4092 May 04 j 16:42	15° <del>♄</del>		direct	-4086 Apr 29 j 13:29	23° <del>☾</del> 31'58	
evening set	-4092 May 27 j 20:50	17° <del>♄</del> 44'29			-4086 Aug 05 j 09:21	0° <del>♏</del>	
				evening set	-4086 Aug 11 j 08:48	0° <del>♏</del> 40'32	
conjunction	-4092 Jun 14 j 20:37	19° <del>♄</del> 59'39	0°-25'-26				
minimum elong	-4092 Jun 14 j 20:39	19° <del>♄</del> 59'40	0°25'20	conjunction	-4086 Aug 28 j 03:14	2° <del>♏</del> 37'03	2°08'22
max. Earth dist.	-4092 Jun 15 j 11:54	20° <del>♄</del> 04'28	10.31284 AU	minimum elong	-4086 Aug 28 j 03:11	2° <del>♏</del> 37'02	2°08'32
morning rise	-4092 Jul 02 j 15:59	22° <del>♄</del> 13'26		max. Earth dist.	-4086 Aug 27 j 23:44	2° <del>♏</del> 36'02	11.11257 AU
retrograde	-4092 Oct 11 j 17:18	29° <del>♄</del> 52'25		morning rise	-4086 Sep 13 j 17:28	4° <del>♏</del> 32'23	
opposition	-4092 Dec 17 j 13:21	26° <del>♄</del> 28'53	0°-11'-33	retrograde	-4086 Dec 21 j 04:19	11° <del>♏</del> 20'49	
min. Earth dist.	-4092 Dec 17 j 02:23	26° <del>♄</del> 31'05	8.38633 AU	opposition	-4085 Feb 28 j 18:02	8° <del>♏</del> 04'51	2°43'34
direct	-4091 Feb 24 j 14:02	23° <del>♄</del> 00'40		min. Earth dist.	-4085 Feb 28 j 22:26	8° <del>♏</del> 04'02	9.15356 AU
asc. node	-4091 Apr 05 j 01:36	24° <del>♄</del> 18'45		direct	-4085 May 11 j 12:41	4° <del>♏</del> 43'48	
	-4091 Jun 03 j 08:52	0° <del>♏</del>		evening set	-4085 Aug 22 j 17:43	11° <del>♏</del> 46'37	
evening set	-4091 Jun 10 j 20:14	0° <del>♏</del> 53'51					
				conjunction	-4085 Sep 08 j 08:16	13° <del>♏</del> 41'20	2°19'00
conjunction	-4091 Jun 28 j 15:59	3° <del>♏</del> 05'38	0°07'16	minimum elong	-4085 Sep 08 j 08:14	13° <del>♏</del> 41'20	2°19'07
minimum elong	-4091 Jun 28 j 15:59	3° <del>♏</del> 05'38	0°07'25	max. Earth dist.	-4085 Sep 08 j 01:18	13° <del>♏</del> 39'19	11.18480 AU
behind sun begin	-4091 Jun 28 j 09:23	3° <del>♏</del> 03'37			-4085 Sep 19 j 16:30	15° <del>♏</del>	



## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 27

Attention, astronomical year style is used: The year -4085 in astronomical counting style is the year 4086 BCE in historical counting style.

morning rise	-4085 Sep 24 j 19:29	15° $\Omega$ 35'06		retrograde	-4078 Mar 10 j 11:10	28° $\Omega$ 41'25	
retrograde	-4084 Jan 01 j 11:38	22° $\Omega$ 21'26		opposition	-4078 May 20 j 12:36	25° $\Omega$ 21'48	1°41'28
opposition	-4084 Mar 11 j 10:59	19° $\Omega$ 05'50	2°53'13	min. Earth dist.	-4078 May 21 j 02:01	25° $\Omega$ 19'19	8.98033 AU
min. Earth dist.	-4084 Mar 11 j 17:24	19° $\Omega$ 04'39	9.21300 AU	direct	-4078 Jul 29 j 13:20	22° $\Omega$ 03'49	
direct	-4084 May 22 j 08:57	15° $\Omega$ 45'50		evening set	-4078 Nov 06 j 07:03	29° $\Omega$ 05'48	
evening set	-4084 Sep 01 j 21:20	22° $\Omega$ 44'14			-4078 Nov 13 j 22:33	0° $\mathbb{M}$	
conjunction	-4084 Sep 18 j 09:02	24° $\Omega$ 37'45	2°24'24	conjunction	-4078 Nov 22 j 21:00	1° $\mathbb{M}$ 04'05	1°10'45
minimum elong	-4084 Sep 18 j 09:02	24° $\Omega$ 37'45	2°24'30	minimum elong	-4078 Nov 22 j 21:02	1° $\mathbb{M}$ 04'06	1°10'40
max. Earth dist.	-4084 Sep 18 j 00:12	24° $\Omega$ 35'12	11.23019 AU	max. Earth dist.	-4078 Nov 22 j 04:43	0° $\mathbb{M}$ 59'13	10.91983 AU
morning rise	-4084 Oct 04 j 17:59	26° $\Omega$ 30'32		morning rise	-4078 Dec 09 j 13:41	3° $\mathbb{M}$ 03'15	
	-4084 Nov 07 j 05:19	0° $\mathbb{M}$		retrograde	-4077 Mar 23 j 00:26	10° $\mathbb{M}$ 22'02	
retrograde	-4083 Jan 11 j 19:18	3° $\mathbb{M}$ 16'30		opposition	-4077 Jun 01 j 23:11	7° $\mathbb{M}$ 00'51	1°10'12
opposition	-4083 Mar 23 j 02:42	0° $\mathbb{M}$ 00'58	2°56'31	min. Earth dist.	-4077 Jun 02 j 13:01	6° $\mathbb{M}$ 58'15	8.85419 AU
min. Earth dist.	-4083 Mar 23 j 10:48	29° $\Omega$ 59'30	9.24450 AU	direct	-4077 Aug 10 j 10:20	3° $\mathbb{M}$ 42'14	
	-4083 Mar 23 j 08:01	30° $\mathbb{R}$ $\Omega$		evening set	-4077 Nov 18 j 00:13	10° $\mathbb{M}$ 50'17	
direct	-4083 Jun 02 j 23:00	26° $\Omega$ 41'54					
	-4083 Aug 08 j 23:48	0° $\mathbb{M}$		conjunction	-4077 Dec 04 j 17:17	12° $\mathbb{M}$ 51'10	0°43'27
evening set	-4083 Sep 12 j 21:21	3° $\mathbb{M}$ 37'15		minimum elong	-4077 Dec 04 j 17:19	12° $\mathbb{M}$ 51'11	0°43'20
				max. Earth dist.	-4077 Dec 04 j 01:23	12° $\mathbb{M}$ 46'21	10.78519 AU
conjunction	-4083 Sep 29 j 07:09	5° $\mathbb{M}$ 30'08	2°24'32	morning rise	-4077 Dec 21 j 13:59	14° $\mathbb{M}$ 53'12	
minimum elong	-4083 Sep 29 j 07:09	5° $\mathbb{M}$ 30'09	2°24'37		-4077 Dec 22 j 12:56	15° $\mathbb{M}$	
max. Earth dist.	-4083 Sep 28 j 20:30	5° $\mathbb{M}$ 27'04	11.24727 AU	retrograde	-4076 Apr 03 j 23:22	22° $\mathbb{M}$ 22'48	
morning rise	-4083 Oct 15 j 14:51	7° $\mathbb{M}$ 22'32		opposition	-4076 Jun 13 j 16:49	18° $\mathbb{M}$ 59'54	0°34'57
retrograde	-4082 Jan 23 j 04:23	14° $\mathbb{M}$ 09'53		min. Earth dist.	-4076 Jun 14 j 05:55	18° $\mathbb{M}$ 57'25	8.71109 AU
opposition	-4082 Apr 03 j 18:48	10° $\mathbb{M}$ 54'08	2°53'31	direct	-4076 Aug 21 j 12:55	15° $\mathbb{M}$ 40'27	
min. Earth dist.	-4082 Apr 04 j 05:07	10° $\mathbb{M}$ 52'16	9.24716 AU	evening set	-4076 Nov 29 j 02:52	22° $\mathbb{M}$ 56'14	
direct	-4082 Jun 14 j 10:41	7° $\mathbb{M}$ 35'46					
evening set	-4082 Sep 23 j 19:31	14° $\mathbb{M}$ 29'28		conjunction	-4076 Dec 15 j 23:37	25° $\mathbb{M}$ 00'05	0°13'30
				minimum elong	-4076 Dec 15 j 23:37	25° $\mathbb{M}$ 00'05	0°13'22
conjunction	-4082 Oct 10 j 04:13	16° $\mathbb{M}$ 22'19	2°19'27	behind sun begin	-4076 Dec 15 j 19:31	24° $\mathbb{M}$ 58'50	
minimum elong	-4082 Oct 10 j 04:14	16° $\mathbb{M}$ 22'20	2°19'30	behind sun end	-4076 Dec 16 j 03:44	25° $\mathbb{M}$ 01'20	
max. Earth dist.	-4082 Oct 09 j 14:58	16° $\mathbb{M}$ 18'29	11.23561 AU	max. Earth dist.	-4076 Dec 15 j 09:40	24° $\mathbb{M}$ 55'47	10.63604 AU
morning rise	-4082 Oct 26 j 11:57	18° $\mathbb{M}$ 14'57		morning rise	-4075 Jan 02 j 00:30	27° $\mathbb{M}$ 05'18	
retrograde	-4081 Feb 03 j 15:35	25° $\mathbb{M}$ 05'22			-4075 Jan 27 j 09:30	0° $\mathbb{Z}$	
opposition	-4081 Apr 15 j 12:17	21° $\mathbb{M}$ 49'05	2°44'17	retrograde	-4075 Apr 17 j 08:33	4° $\mathbb{Z}$ 47'01	
min. Earth dist.	-4081 Apr 16 j 00:48	21° $\mathbb{M}$ 46'48	9.22094 AU	desc. node	-4075 May 27 j 09:21	3° $\mathbb{Z}$ 31'26	
direct	-4081 Jun 25 j 21:17	18° $\mathbb{M}$ 31'11		opposition	-4075 Jun 26 j 18:19	1° $\mathbb{Z}$ 22'17	0°-3'-7
evening set	-4081 Oct 04 j 17:45	25° $\mathbb{M}$ 24'41		min. Earth dist.	-4075 Jun 27 j 05:14	1° $\mathbb{Z}$ 20'11	8.55699 AU
max. Earth dist.	-4081 Oct 20 j 11:36	27° $\mathbb{M}$ 13'46	11.19554 AU		-4075 Jul 15 j 02:47	30° $\mathbb{R}$ $\mathbb{M}$	
				direct	-4075 Sep 02 j 23:33	28° $\mathbb{M}$ 01'47	
conjunction	-4081 Oct 21 j 02:26	27° $\mathbb{M}$ 18'05	2°09'16		-4075 Oct 20 j 19:29	0° $\mathbb{Z}$	
minimum elong	-4081 Oct 21 j 02:28	27° $\mathbb{M}$ 18'05	2°09'17	evening set	-4075 Dec 11 j 17:09	5° $\mathbb{Z}$ 26'50	
morning rise	-4081 Nov 06 j 11:10	29° $\mathbb{M}$ 11'33					
	-4081 Nov 13 j 15:17	0° $\mathbb{Z}$		conjunction	-4075 Dec 28 j 17:50	7° $\mathbb{Z}$ 33'55	0°-18'-3
retrograde	-4080 Feb 15 j 06:37	6° $\mathbb{Z}$ 06'39		minimum elong	-4075 Dec 28 j 17:49	7° $\mathbb{Z}$ 33'55	0°18'13
opposition	-4080 Apr 26 j 08:04	2° $\mathbb{Z}$ 49'32	2°29'00	max. Earth dist.	-4075 Dec 28 j 06:09	7° $\mathbb{Z}$ 30'16	10.47934 AU
min. Earth dist.	-4080 Apr 26 j 21:23	2° $\mathbb{Z}$ 47'06	9.16653 AU	morning rise	-4074 Jan 14 j 23:08	9° $\mathbb{Z}$ 42'34	
	-4080 Jun 11 j 22:03	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-4074 May 01 j 05:27	17° $\mathbb{Z}$ 37'01	
direct	-4080 Jul 06 j 08:52	29° $\mathbb{M}$ 31'51		opposition	-4074 Jul 10 j 04:09	14° $\mathbb{Z}$ 10'27	0°-42'-29
	-4080 Jul 30 j 11:20	0° $\mathbb{Z}$		min. Earth dist.	-4074 Jul 10 j 12:15	14° $\mathbb{Z}$ 08'52	8.39966 AU
evening set	-4080 Oct 14 j 17:45	6° $\mathbb{Z}$ 26'40		direct	-4074 Sep 15 j 18:00	10° $\mathbb{Z}$ 48'42	
				evening set	-4074 Dec 24 j 20:30	18° $\mathbb{Z}$ 24'13	
conjunction	-4080 Oct 31 j 03:30	8° $\mathbb{Z}$ 21'11	1°54'12				
minimum elong	-4080 Oct 31 j 03:33	8° $\mathbb{Z}$ 21'12	1°54'11	conjunction	-4073 Jan 11 j 01:08	20° $\mathbb{Z}$ 34'40	0°-49'-37
max. Earth dist.	-4080 Oct 30 j 12:32	8° $\mathbb{Z}$ 16'48	11.12810 AU	minimum elong	-4073 Jan 11 j 01:06	20° $\mathbb{Z}$ 34'39	0°49'48
morning rise	-4080 Nov 16 j 13:59	10° $\mathbb{Z}$ 16'01		max. Earth dist.	-4073 Jan 10 j 15:50	20° $\mathbb{Z}$ 31'42	10.32327 AU
retrograde	-4079 Feb 26 j 06:20	17° $\mathbb{Z}$ 17'28		morning rise	-4073 Jan 28 j 10:54	22° $\mathbb{Z}$ 46'48	
opposition	-4079 May 08 j 07:49	13° $\mathbb{Z}$ 59'14	2°07'56		-4073 Apr 12 j 23:21	0° $\mathbb{Z}$	
min. Earth dist.	-4079 May 08 j 21:06	13° $\mathbb{Z}$ 56'48	9.08550 AU	retrograde	-4073 May 15 j 13:16	0° $\mathbb{Z}$ 53'58	
direct	-4079 Jul 17 j 22:34	10° $\mathbb{Z}$ 41'33			-4073 Jun 17 j 08:03	30° $\mathbb{R}$ $\mathbb{Z}$	
evening set	-4079 Oct 25 j 21:28	17° $\mathbb{Z}$ 39'08		opposition	-4073 Jul 23 j 22:32	27° $\mathbb{Z}$ 25'41	-1°-21'-6
				min. Earth dist.	-4073 Jul 24 j 03:56	27° $\mathbb{Z}$ 24'37	8.24751 AU
conjunction	-4079 Nov 11 j 09:00	19° $\mathbb{Z}$ 35'18	1°34'33	direct	-4073 Sep 28 j 20:49	24° $\mathbb{Z}$ 02'29	
minimum elong	-4079 Nov 11 j 09:03	19° $\mathbb{Z}$ 35'18	1°34'29		-4073 Dec 23 j 19:08	0° $\mathbb{Z}$	
max. Earth dist.	-4079 Nov 10 j 17:41	19° $\mathbb{Z}$ 30'46	11.03526 AU	evening set	-4072 Jan 07 j 13:35	1° $\mathbb{Z}$ 49'16	
morning rise	-4079 Nov 27 j 22:09	21° $\mathbb{Z}$ 32'03					

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 28

Attention, astronomical year style is used: The year -4072 in astronomical counting style is the year 4073 BCE in historical counting style.

conjunction	-4072 Jan 24 j 22:09	4°☾03'00	-1°-19'-29	morning rise	-4066 May 13 j 07:18	3°☿42'26	
minimum elong	-4072 Jan 24 j 22:06	4°☾02'59	1°19'41	retrograde	-4066 Aug 26 j 11:32	12°☿06'30	
max. Earth dist.	-4072 Jan 24 j 16:04	4°☾01'02	10.17641 AU	opposition	-4066 Oct 31 j 19:23	8°☿36'27	-2°-20'-35
morning rise	-4072 Feb 11 j 12:08	6°☾18'30		min. Earth dist.	-4066 Oct 31 j 05:58	8°☿39'16	7.93798 AU
retrograde	-4072 May 29 j 05:13	14°☾37'33		direct	-4065 Jan 06 j 12:29	5°☿05'50	
opposition	-4072 Aug 06 j 00:57	11°☾07'46	-1°-56'-33	evening set	-4065 Apr 22 j 12:09	13°☿29'04	
min. Earth dist.	-4072 Aug 06 j 03:28	11°☾07'15	8.10923 AU				
direct	-4072 Oct 11 j 11:30	7°☾43'02		conjunction	-4065 May 10 j 16:27	15°☿50'52	-1°-40'-21
evening set	-4071 Jan 20 j 20:33	15°☾41'12		minimum elong	-4065 May 10 j 16:31	15°☿50'53	1°40'20
				max. Earth dist.	-4065 May 11 j 10:49	15°☿56'53	9.98283 AU
conjunction	-4071 Feb 07 j 09:05	17°☾58'01	-1°-45'-38	morning rise	-4065 May 28 j 19:15	18°☿12'08	
minimum elong	-4071 Feb 07 j 09:02	17°☾58'00	1°45'50	retrograde	-4065 Sep 09 j 17:39	26°☿24'32	
max. Earth dist.	-4071 Feb 07 j 07:09	17°☾57'23	10.04752 AU	opposition	-4065 Nov 15 j 01:46	22°☿56'03	-1°-48'-47
morning rise	-4071 Feb 25 j 02:54	20°☾16'33		min. Earth dist.	-4065 Nov 14 j 12:24	22°☿58'49	8.03661 AU
retrograde	-4071 Jun 13 j 03:59	28°☾45'37		direct	-4064 Jan 21 j 09:16	19°☿25'37	
opposition	-4071 Aug 20 j 10:24	25°☾14'38	-2°-26'-10	evening set	-4064 May 06 j 16:03	27°☿42'19	
min. Earth dist.	-4071 Aug 20 j 09:47	25°☾14'46	7.99328 AU				
direct	-4071 Oct 25 j 12:24	21°☾48'23		conjunction	-4064 May 24 j 19:32	0°♄01'58	-1°-12'-29
evening set	-4070 Feb 04 j 16:25	29°☾57'12		minimum elong	-4064 May 24 j 19:35	0°♄01'59	1°12'26
	-4070 Feb 05 j 01:02	0°♄			-4064 May 24 j 13:25	0°♄	
				max. Earth dist.	-4064 May 25 j 13:10	0°♄07'40	10.09640 AU
conjunction	-4070 Feb 22 j 08:51	2°♄16'44	-2°-6'00	morning rise	-4064 Jun 11 j 20:21	2°♄20'42	
minimum elong	-4070 Feb 22 j 08:48	2°♄16'43	2°06'11	retrograde	-4064 Sep 22 j 12:57	10°♄19'57	
max. Earth dist.	-4070 Feb 22 j 11:50	2°♄17'43	9.94475 AU	min. Earth dist.	-4064 Nov 27 j 11:35	6°♄55'55	8.16167 AU
morning rise	-4070 Mar 12 j 06:00	4°♄37'46		opposition	-4064 Nov 28 j 00:28	6°♄53'17	-1°-11'-20
retrograde	-4070 Jun 28 j 07:59	13°♄13'57		direct	-4063 Feb 03 j 23:59	3°♄23'26	
opposition	-4070 Sep 04 j 01:14	9°♄42'10	-2°-47'-21	evening set	-4063 May 21 j 09:38	11°♄31'37	
min. Earth dist.	-4070 Sep 03 j 21:06	9°♄43'01	7.90702 AU				
direct	-4070 Nov 08 j 21:57	6°♄14'31		conjunction	-4063 Jun 08 j 10:55	13°♄48'28	0°-41'-7
evening set	-4069 Feb 19 j 23:07	14°♄32'18		minimum elong	-4063 Jun 08 j 10:57	13°♄48'28	0°41'02
	-4069 Feb 23 j 11:42	15°♄		max. Earth dist.	-4063 Jun 09 j 02:54	13°♄53'32	10.23243 AU
					-4063 Jun 17 j 20:23	15°♄	
conjunction	-4069 Mar 09 j 19:11	16°♄53'56	-2°-18'-45	morning rise	-4063 Jun 26 j 08:30	16°♄04'03	
minimum elong	-4069 Mar 09 j 19:10	16°♄53'56	2°18'54	retrograde	-4063 Oct 05 j 21:20	23°♄49'45	
max. Earth dist.	-4069 Mar 10 j 03:04	16°♄56'34	9.87495 AU	opposition	-4063 Dec 11 j 14:40	20°♄25'03	0°-31'-5
morning rise	-4069 Mar 27 j 19:02	19°♄16'48		min. Earth dist.	-4063 Dec 11 j 02:35	20°♄27'29	8.30531 AU
retrograde	-4069 Jul 13 j 13:57	27°♄56'16		direct	-4062 Feb 18 j 07:45	16°♄56'08	
opposition	-4069 Sep 18 j 19:12	24°♄24'10	-2°-58'00	evening set	-4062 Jun 04 j 15:15	24°♄54'36	
min. Earth dist.	-4069 Sep 18 j 11:33	24°♄25'46	7.85621 AU				
direct	-4069 Nov 23 j 14:13	20°♄55'18		conjunction	-4062 Jun 22 j 13:04	27°♄08'10	0°-8'-25
evening set	-4068 Mar 06 j 13:17	29°♄19'29		minimum elong	-4062 Jun 22 j 13:05	27°♄08'10	0°08'18
	-4068 Mar 11 j 16:33	0°♄		behind sun begin	-4062 Jun 22 j 06:42	27°♄06'11	
				behind sun end	-4062 Jun 22 j 19:27	27°♄10'09	
conjunction	-4068 Mar 24 j 12:37	1°♄42'30	-2°-22'-35	max. Earth dist.	-4062 Jun 23 j 03:04	27°♄12'32	10.38264 AU
minimum elong	-4068 Mar 24 j 12:38	1°♄42'30	2°22'42	morning rise	-4062 Jul 10 j 06:21	29°♄20'15	
max. Earth dist.	-4068 Mar 25 j 00:52	1°♄46'35	9.84311 AU		-4062 Jul 15 j 17:18	0°♄	
morning rise	-4068 Apr 11 j 14:32	4°♄06'21		asc. node	-4062 Sep 27 j 16:55	6°♄28'36	
retrograde	-4068 Jul 27 j 19:06	12°♄44'47		retrograde	-4062 Oct 18 j 18:37	6°♄52'59	
opposition	-4068 Oct 02 j 13:58	9°♄12'52	-2°-56'-53	opposition	-4062 Dec 24 j 20:31	3°♄30'15	0°09'22
min. Earth dist.	-4068 Oct 02 j 03:21	9°♄15'06	7.84445 AU	min. Earth dist.	-4062 Dec 24 j 09:27	3°♄32'27	8.45926 AU
direct	-4068 Dec 07 j 11:47	5°♄43'04		direct	-4061 Mar 04 j 06:46	0°♄02'31	
evening set	-4067 Mar 22 j 06:54	14°♄10'22		evening set	-4061 Jun 18 j 08:07	7°♄50'44	
conjunction	-4067 Apr 09 j 08:55	16°♄33'54	-2°-17'-1	conjunction	-4061 Jul 06 j 01:31	10°♄00'47	0°23'50
minimum elong	-4067 Apr 09 j 08:58	16°♄33'55	2°17'05	minimum elong	-4061 Jul 06 j 01:30	10°♄00'46	0°23'59
max. Earth dist.	-4067 Apr 10 j 00:37	16°♄39'08	9.85149 AU	max. Earth dist.	-4061 Jul 06 j 13:36	10°♄04'30	10.53871 AU
morning rise	-4067 Apr 27 j 12:12	18°♄57'50		morning rise	-4061 Jul 23 j 13:42	12°♄09'14	
retrograde	-4067 Aug 11 j 19:33	27°♄30'56		retrograde	-4061 Oct 31 j 07:22	19°♄30'09	
opposition	-4067 Oct 17 j 06:51	23°♄59'43	-2°-44'-1	opposition	-4060 Jan 06 j 18:12	16°♄09'17	0°47'55
min. Earth dist.	-4067 Oct 16 j 18:14	24°♄02'22	7.87241 AU	min. Earth dist.	-4060 Jan 06 j 09:18	16°♄11'02	8.61540 AU
direct	-4067 Dec 22 j 12:22	20°♄29'19		direct	-4060 Mar 16 j 19:31	12°♄42'54	
evening set	-4066 Apr 06 j 23:57	28°♄56'15		evening set	-4060 Jun 30 j 12:44	20°♄20'58	
	-4066 Apr 15 j 03:10	0°♄					
				conjunction	-4060 Jul 18 j 01:00	22°♄27'30	0°53'55
conjunction	-4066 Apr 25 j 03:42	1°♄19'23	-2°-2'-30	minimum elong	-4060 Jul 18 j 00:58	22°♄27'29	0°54'05
minimum elong	-4066 Apr 25 j 03:46	1°♄19'24	2°02'31	max. Earth dist.	-4060 Jul 18 j 10:17	22°♄30'18	10.69276 AU
max. Earth dist.	-4066 Apr 25 j 21:29	1°♄25'16	9.89924 AU	morning rise	-4060 Aug 04 j 07:47	24°♄32'24	

Attention, astronomical year style is used: The year -4060 in astronomical counting style is the year 4061 BCE in historical counting style.

	-4060 Sep 27 j 14:38	0° $\text{☿}$		minimum elong	-4054 Sep 24 j 16:03	0° $\text{♊}$ 43'41	2°25'07
retrograde	-4060 Nov 11 j 11:59	1° $\text{☿}$ 42'57		max. Earth dist.	-4054 Sep 24 j 04:16	0° $\text{♊}$ 40'17	11.24356 AU
	-4060 Dec 27 j 14:25	30° $\text{♊}$		morning rise	-4054 Oct 11 j 00:21	2° $\text{♊}$ 36'15	
opposition	-4059 Jan 18 j 08:16	28° $\text{♊}$ 23'48	1°22'54	retrograde	-4053 Jan 18 j 07:25	9° $\text{♊}$ 23'01	
min. Earth dist.	-4059 Jan 18 j 02:26	28° $\text{♊}$ 24'56	8.76620 AU	opposition	-4053 Mar 29 j 18:53	6° $\text{♊}$ 07'36	2°55'35
direct	-4059 Mar 29 j 21:37	24° $\text{♊}$ 58'48		min. Earth dist.	-4053 Mar 30 j 05:40	6° $\text{♊}$ 05'38	9.24833 AU
	-4059 Jun 21 j 08:44	0° $\text{☿}$		direct	-4053 Jun 09 j 13:05	2° $\text{♊}$ 49'00	
evening set	-4059 Jul 13 j 05:41	2° $\text{☿}$ 27'17		evening set	-4053 Sep 19 j 04:46	9° $\text{♊}$ 43'39	
conjunction	-4059 Jul 30 j 12:26	4° $\text{☿}$ 30'27	1°20'45	conjunction	-4053 Oct 05 j 13:57	11° $\text{♊}$ 36'32	2°22'22
minimum elong	-4059 Jul 30 j 12:23	4° $\text{☿}$ 30'26	1°20'56	minimum elong	-4053 Oct 05 j 13:59	11° $\text{♊}$ 36'32	2°22'27
max. Earth dist.	-4059 Jul 30 j 17:44	4° $\text{☿}$ 32'02	10.83772 AU	max. Earth dist.	-4053 Oct 05 j 00:46	11° $\text{♊}$ 32'43	11.24131 AU
morning rise	-4059 Aug 16 j 13:56	6° $\text{☿}$ 32'04		morning rise	-4053 Oct 21 j 21:38	13° $\text{♊}$ 29'03	
retrograde	-4059 Nov 23 j 06:40	13° $\text{☿}$ 33'59		retrograde	-4052 Jan 29 j 18:36	20° $\text{♊}$ 18'07	
opposition	-4058 Jan 30 j 15:53	10° $\text{☿}$ 16'18	1°53'10	opposition	-4052 Apr 09 j 11:48	17° $\text{♊}$ 02'07	2°49'15
min. Earth dist.	-4058 Jan 30 j 13:10	10° $\text{☿}$ 16'48	8.90491 AU	min. Earth dist.	-4052 Apr 09 j 23:44	16° $\text{♊}$ 59'57	9.23124 AU
direct	-4058 Apr 11 j 17:43	6° $\text{☿}$ 52'39		direct	-4052 Jun 20 j 01:12	13° $\text{♊}$ 43'56	
evening set	-4058 Jul 25 j 11:41	14° $\text{☿}$ 12'23		evening set	-4052 Sep 29 j 03:05	20° $\text{♊}$ 37'42	
conjunction	-4058 Aug 11 j 13:02	16° $\text{☿}$ 12'30	1°43'28	conjunction	-4052 Oct 15 j 11:51	22° $\text{♊}$ 30'53	2°14'33
minimum elong	-4058 Aug 11 j 12:59	16° $\text{☿}$ 12'29	1°43'39	minimum elong	-4052 Oct 15 j 11:53	22° $\text{♊}$ 30'53	2°14'35
max. Earth dist.	-4058 Aug 11 j 14:10	16° $\text{☿}$ 12'50	10.96744 AU	max. Earth dist.	-4052 Oct 14 j 21:24	22° $\text{♊}$ 26'41	11.20996 AU
morning rise	-4058 Aug 28 j 09:37	18° $\text{☿}$ 11'13		morning rise	-4052 Oct 31 j 19:54	24° $\text{♊}$ 23'58	
retrograde	-4058 Dec 04 j 21:30	25° $\text{☿}$ 06'23			-4052 Dec 31 j 00:35	0° $\text{♊}$	
opposition	-4057 Feb 11 j 17:51	21° $\text{☿}$ 49'48	2°17'56	retrograde	-4051 Feb 09 j 08:22	1° $\text{♊}$ 17'00	
min. Earth dist.	-4057 Feb 11 j 17:29	21° $\text{☿}$ 49'52	9.02563 AU		-4051 Mar 22 j 18:44	30° $\text{♊}$	
direct	-4057 Apr 24 j 05:30	18° $\text{☿}$ 27'29		opposition	-4051 Apr 21 j 06:45	28° $\text{♊}$ 00'06	2°36'47
evening set	-4057 Aug 06 j 08:13	25° $\text{☿}$ 39'29		min. Earth dist.	-4051 Apr 21 j 20:13	27° $\text{♊}$ 57'38	9.18536 AU
				direct	-4051 Jul 01 j 11:55	24° $\text{♊}$ 42'04	
conjunction	-4057 Aug 23 j 04:47	27° $\text{☿}$ 37'02	2°01'31		-4051 Sep 25 j 15:27	0° $\text{♊}$	
minimum elong	-4057 Aug 23 j 04:45	27° $\text{☿}$ 37'01	2°01'41	evening set	-4051 Oct 10 j 02:19	1° $\text{♊}$ 36'27	
max. Earth dist.	-4057 Aug 23 j 02:53	27° $\text{☿}$ 36'28	11.07654 AU				
morning rise	-4057 Sep 08 j 20:56	29° $\text{☿}$ 33'19		conjunction	-4051 Oct 26 j 11:29	3° $\text{♊}$ 30'29	2°01'43
	-4057 Sep 12 j 18:42	0° $\text{♊}$		minimum elong	-4051 Oct 26 j 11:31	3° $\text{♊}$ 30'30	2°01'43
retrograde	-4057 Dec 16 j 08:13	6° $\text{♊}$ 23'34		max. Earth dist.	-4051 Oct 25 j 19:04	3° $\text{♊}$ 25'42	11.15078 AU
opposition	-4056 Feb 23 j 15:15	3° $\text{♊}$ 07'47	2°36'45	morning rise	-4051 Nov 11 j 21:06	5° $\text{♊}$ 24'44	
min. Earth dist.	-4056 Feb 23 j 17:34	3° $\text{♊}$ 07'21	9.12325 AU	retrograde	-4050 Feb 21 j 03:25	12° $\text{♊}$ 23'22	
	-4056 Apr 18 j 11:46	30° $\text{♊}$		opposition	-4050 May 03 j 04:55	9° $\text{♊}$ 05'18	2°18'22
direct	-4056 May 05 j 08:14	29° $\text{♊}$ 46'40		min. Earth dist.	-4050 May 03 j 19:43	9° $\text{♊}$ 02'35	9.11242 AU
	-4056 May 22 j 02:33	0° $\text{♊}$		direct	-4050 Jul 13 j 00:21	5° $\text{♊}$ 47'11	
evening set	-4056 Aug 16 j 20:55	6° $\text{♊}$ 52'14		evening set	-4050 Oct 21 j 04:09	12° $\text{♊}$ 43'42	
conjunction	-4056 Sep 02 j 13:22	8° $\text{♊}$ 47'45	2°14'35	conjunction	-4050 Nov 06 j 14:44	14° $\text{♊}$ 39'10	1°44'09
minimum elong	-4056 Sep 02 j 13:20	8° $\text{♊}$ 47'45	2°14'43	minimum elong	-4050 Nov 06 j 14:47	14° $\text{♊}$ 39'11	1°44'06
max. Earth dist.	-4056 Sep 02 j 08:30	8° $\text{♊}$ 46'20	11.16048 AU	max. Earth dist.	-4050 Nov 05 j 21:43	14° $\text{♊}$ 34'08	11.06577 AU
morning rise	-4056 Sep 19 j 01:48	10° $\text{♊}$ 42'11		morning rise	-4050 Nov 23 j 02:47	16° $\text{♊}$ 35'07	
	-4056 Oct 31 j 11:34	15° $\text{♊}$		retrograde	-4049 Mar 05 j 03:47	23° $\text{♊}$ 41'01	
retrograde	-4056 Dec 26 j 17:05	17° $\text{♊}$ 29'27		opposition	-4049 May 15 j 07:18	20° $\text{♊}$ 21'32	1°54'21
	-4055 Feb 23 j 21:42	15° $\text{♊}$		min. Earth dist.	-4049 May 15 j 22:13	20° $\text{♊}$ 18'47	9.01478 AU
opposition	-4055 Mar 06 j 09:47	14° $\text{♊}$ 14'09	2°49'22	direct	-4049 Jul 24 j 15:22	17° $\text{♊}$ 03'05	
min. Earth dist.	-4055 Mar 06 j 15:28	14° $\text{♊}$ 13'06	9.19394 AU	evening set	-4049 Nov 01 j 10:48	24° $\text{♊}$ 03'22	
direct	-4055 May 17 j 05:53	10° $\text{♊}$ 54'05					
	-4055 Jul 31 j 20:36	15° $\text{♊}$		conjunction	-4049 Nov 17 j 23:42	26° $\text{♊}$ 00'46	1°22'13
evening set	-4055 Aug 28 j 03:28	17° $\text{♊}$ 54'38		minimum elong	-4049 Nov 17 j 23:44	26° $\text{♊}$ 00'47	1°22'08
				max. Earth dist.	-4049 Nov 17 j 07:35	25° $\text{♊}$ 55'58	10.95752 AU
conjunction	-4055 Sep 13 j 16:25	19° $\text{♊}$ 48'41	2°22'26	morning rise	-4049 Dec 04 j 14:43	27° $\text{♊}$ 58'55	
minimum elong	-4055 Sep 13 j 16:24	19° $\text{♊}$ 48'40	2°22'33		-4049 Dec 22 j 11:38	0° $\text{♊}$	
max. Earth dist.	-4055 Sep 13 j 07:49	19° $\text{♊}$ 46'11	11.21649 AU	retrograde	-4048 Mar 16 j 14:13	5° $\text{♊}$ 13'40	
morning rise	-4055 Sep 30 j 02:15	21° $\text{♊}$ 41'52		opposition	-4048 May 26 j 14:59	1° $\text{♊}$ 52'35	1°25'13
retrograde	-4054 Jan 06 j 23:48	28° $\text{♊}$ 27'59		min. Earth dist.	-4048 May 27 j 04:42	1° $\text{♊}$ 50'02	8.89563 AU
opposition	-4054 Mar 18 j 02:40	25° $\text{♊}$ 12'50	2°55'39		-4048 Jun 22 j 08:07	30° $\text{♊}$	
min. Earth dist.	-4054 Mar 18 j 11:35	25° $\text{♊}$ 11'12	9.23585 AU	direct	-4048 Aug 04 j 10:41	28° $\text{♊}$ 33'39	
direct	-4054 May 28 j 22:17	21° $\text{♊}$ 53'38			-4048 Sep 15 j 02:25	0° $\text{♊}$	
evening set	-4054 Sep 08 j 05:35	28° $\text{♊}$ 50'32		evening set	-4048 Nov 12 j 00:13	5° $\text{♊}$ 39'16	
	-4054 Sep 18 j 08:43	0° $\text{♊}$					
conjunction	-4054 Sep 24 j 16:03	0° $\text{♊}$ 43'41	2°25'02	conjunction	-4048 Nov 28 j 15:58	7° $\text{♊}$ 39'06	0°56'26
				minimum elong	-4048 Nov 28 j 16:01	7° $\text{♊}$ 39'06	0°56'20

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Attention, astronomical year style is used: The year -4048 in astronomical counting style is the year 4049 BCE in historical counting style.

max. Earth dist.	-4048 Nov 28 j 00:28	7° $\mathbb{M}$ 34'25	10.82977 AU	minimum elong	-4041 Feb 15 j 20:33	25° $\mathfrak{Z}$ 56'29	1°57'38
morning rise	-4048 Dec 15 j 10:40	9° $\mathbb{M}$ 39'56		max. Earth dist.	-4041 Feb 15 j 23:08	25° $\mathfrak{Z}$ 57'20	9.98896 AU
	-4047 Feb 05 j 22:03	15° $\mathbb{M}$		morning rise	-4041 Mar 05 j 16:08	28° $\mathfrak{Z}$ 16'28	
retrograde	-4047 Mar 29 j 09:54	17° $\mathbb{M}$ 04'56			-4041 Mar 19 j 07:54	0° $\approx$	
	-4047 May 21 j 14:15	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-4041 Jun 21 j 19:48	6° $\approx$ 49'59	
opposition	-4047 Jun 08 j 05:29	13° $\mathbb{M}$ 42'11	0°51'39	opposition	-4041 Aug 28 j 18:18	3° $\approx$ 18'43	-2°-38'-44
min. Earth dist.	-4047 Jun 08 j 18:01	13° $\mathbb{M}$ 39'49	8.75933 AU	min. Earth dist.	-4041 Aug 28 j 14:03	3° $\approx$ 19'36	7.94547 AU
direct	-4047 Aug 16 j 08:44	10° $\mathbb{M}$ 22'32			-4041 Oct 21 j 21:47	30° $\mathbb{R}$ $\mathfrak{Z}$	
	-4047 Nov 01 j 07:46	15° $\mathbb{M}$		direct	-4041 Nov 02 j 15:19	29° $\mathfrak{Z}$ 52'02	
evening set	-4047 Nov 23 j 22:20	17° $\mathbb{M}$ 35'07			-4041 Nov 14 j 08:48	0° $\approx$	
				evening set	-4040 Feb 13 j 08:10	8° $\approx$ 06'01	
conjunction	-4047 Dec 10 j 17:22	19° $\mathbb{M}$ 37'45	0°27'33				
minimum elong	-4047 Dec 10 j 17:23	19° $\mathbb{M}$ 37'45	0°27'26	conjunction	-4040 Mar 02 j 02:24	10° $\approx$ 26'43	-2°-13'-52
max. Earth dist.	-4047 Dec 10 j 02:30	19° $\mathbb{M}$ 33'12	10.68732 AU	minimum elong	-4040 Mar 02 j 02:22	10° $\approx$ 26'42	2°14'02
morning rise	-4047 Dec 27 j 16:21	21° $\mathbb{M}$ 41'38		max. Earth dist.	-4040 Mar 02 j 09:05	10° $\approx$ 28'56	9.90760 AU
retrograde	-4046 Apr 11 j 13:45	29° $\mathbb{M}$ 18'11		morning rise	-4040 Mar 20 j 01:00	12° $\approx$ 48'48	
opposition	-4046 Jun 21 j 03:31	25° $\mathbb{M}$ 53'41	0°14'40		-4040 Apr 06 j 07:50	15° $\approx$	
min. Earth dist.	-4046 Jun 21 j 14:52	25° $\mathbb{M}$ 51'30	8.61124 AU	retrograde	-4040 Jul 06 j 02:27	21° $\approx$ 27'21	
direct	-4046 Aug 28 j 15:30	22° $\mathbb{M}$ 33'06		opposition	-4040 Sep 11 j 11:31	17° $\approx$ 55'43	-2°-54'-22
desc. node	-4046 Nov 12 j 00:52	27° $\mathbb{M}$ 05'45		min. Earth dist.	-4040 Sep 11 j 04:28	17° $\approx$ 57'12	7.88212 AU
evening set	-4046 Dec 06 j 07:12	29° $\mathbb{M}$ 54'14			-4040 Oct 23 j 12:16	15° $\mathbb{R}$ $\approx$	
	-4046 Dec 07 j 02:07	0° $\mathfrak{A}$		direct	-4040 Nov 16 j 04:39	14° $\approx$ 27'53	
					-4040 Dec 09 j 19:44	15° $\approx$	
conjunction	-4046 Dec 23 j 05:58	1° $\mathfrak{A}$ 59'58	0°-3'-29	evening set	-4039 Feb 27 j 19:37	22° $\approx$ 49'22	
minimum elong	-4046 Dec 23 j 05:57	1° $\mathfrak{A}$ 59'58	0°03'39				
behind sun begin	-4046 Dec 22 j 22:56	1° $\mathfrak{A}$ 57'48		conjunction	-4039 Mar 17 j 17:16	25° $\approx$ 11'44	-2°-21'-52
behind sun end	-4046 Dec 23 j 12:59	2° $\mathfrak{A}$ 02'08		minimum elong	-4039 Mar 17 j 17:16	25° $\approx$ 11'44	2°22'00
max. Earth dist.	-4046 Dec 22 j 16:47	1° $\mathfrak{A}$ 55'53	10.53590 AU	max. Earth dist.	-4039 Mar 18 j 03:59	25° $\approx$ 15'19	9.86222 AU
morning rise	-4045 Jan 09 j 09:25	4° $\mathfrak{A}$ 07'11		morning rise	-4039 Apr 04 j 18:21	27° $\approx$ 35'11	
retrograde	-4045 Apr 25 j 04:56	11° $\mathfrak{A}$ 56'07			-4039 Apr 23 j 20:14	0° $\mathbb{H}$	
opposition	-4045 Jul 04 j 09:29	8° $\mathfrak{A}$ 29'53	0°-24'-20	retrograde	-4039 Jul 21 j 08:49	6° $\mathbb{H}$ 14'28	
min. Earth dist.	-4045 Jul 04 j 19:05	8° $\mathfrak{A}$ 28'01	8.45776 AU	opposition	-4039 Sep 26 j 06:28	2° $\mathbb{H}$ 42'56	-2°-58'-39
direct	-4045 Sep 10 j 06:30	5° $\mathfrak{A}$ 08'13		min. Earth dist.	-4039 Sep 25 j 20:58	2° $\mathbb{H}$ 44'56	7.85631 AU
evening set	-4045 Dec 19 j 04:17	12° $\mathfrak{A}$ 39'15			-4039 Nov 02 j 13:37	30° $\mathbb{R}$ $\approx$	
				direct	-4039 Dec 01 j 01:17	29° $\approx$ 14'06	
conjunction	-4044 Jan 05 j 07:05	14° $\mathfrak{A}$ 48'16	0°-35'-11		-4039 Dec 29 j 09:49	0° $\mathbb{H}$	
minimum elong	-4044 Jan 05 j 07:03	14° $\mathfrak{A}$ 48'15	0°35'22	evening set	-4038 Mar 15 j 12:26	7° $\mathbb{H}$ 40'04	
max. Earth dist.	-4044 Jan 04 j 21:19	14° $\mathfrak{A}$ 45'11	10.38229 AU				
morning rise	-4044 Jan 22 j 14:54	16° $\mathfrak{A}$ 58'56		conjunction	-4038 Apr 02 j 13:04	10° $\mathbb{H}$ 03'18	-2°-20'-34
retrograde	-4044 May 08 j 07:19	25° $\mathfrak{A}$ 00'38		minimum elong	-4038 Apr 02 j 13:05	10° $\mathbb{H}$ 03'19	2°20'40
opposition	-4044 Jul 17 j 00:04	21° $\mathfrak{A}$ 32'45	-1°-3'-35	max. Earth dist.	-4038 Apr 03 j 03:05	10° $\mathbb{H}$ 07'59	9.85584 AU
min. Earth dist.	-4044 Jul 17 j 06:33	21° $\mathfrak{A}$ 31'28	8.30626 AU	morning rise	-4038 Apr 20 j 15:53	12° $\mathbb{H}$ 27'11	
direct	-4044 Sep 22 j 05:53	18° $\mathfrak{A}$ 09'55		retrograde	-4038 Aug 05 j 10:54	21° $\mathbb{H}$ 02'48	
evening set	-4044 Dec 31 j 14:46	25° $\mathfrak{A}$ 51'47		opposition	-4038 Oct 11 j 00:35	17° $\mathbb{H}$ 31'49	-2°-51'-3
				min. Earth dist.	-4038 Oct 10 j 13:09	17° $\mathbb{H}$ 34'13	7.86930 AU
conjunction	-4043 Jan 17 j 21:39	28° $\mathfrak{A}$ 04'07	-1°-6'-5	direct	-4038 Dec 16 j 02:21	14° $\mathbb{H}$ 02'14	
minimum elong	-4043 Jan 17 j 21:36	28° $\mathfrak{A}$ 04'07	1°06'16	evening set	-4037 Mar 31 j 06:10	22° $\mathbb{H}$ 29'13	
max. Earth dist.	-4043 Jan 17 j 15:56	28° $\mathfrak{A}$ 02'17	10.23431 AU				
	-4043 Feb 02 j 00:00	0° $\mathfrak{Z}$		conjunction	-4037 Apr 18 j 09:00	24° $\mathbb{H}$ 52'25	-2°-10'-1
morning rise	-4043 Feb 04 j 09:39	0° $\mathfrak{Z}$ 18'11		minimum elong	-4037 Apr 18 j 09:04	24° $\mathbb{H}$ 52'26	2°10'03
retrograde	-4043 May 22 j 19:36	8° $\mathfrak{Z}$ 32'16		max. Earth dist.	-4037 Apr 19 j 01:14	24° $\mathbb{H}$ 57'48	9.88800 AU
opposition	-4043 Jul 30 j 23:00	5° $\mathfrak{Z}$ 02'56	-1°-40'-49	morning rise	-4037 May 06 j 12:37	27° $\mathbb{H}$ 15'48	
min. Earth dist.	-4043 Jul 31 j 01:45	5° $\mathfrak{Z}$ 02'23	8.16486 AU		-4037 May 28 j 10:32	0° $\mathbb{Y}$	
direct	-4043 Oct 05 j 15:33	1° $\mathfrak{Z}$ 38'49		retrograde	-4037 Aug 20 j 05:26	5° $\mathbb{Y}$ 43'51	
evening set	-4042 Jan 14 j 15:31	9° $\mathfrak{Z}$ 32'01		opposition	-4037 Oct 25 j 15:16	2° $\mathbb{Y}$ 13'50	-2°-32'-13
				min. Earth dist.	-4037 Oct 25 j 02:30	2° $\mathbb{Y}$ 16'30	7.91897 AU
conjunction	-4042 Feb 01 j 02:22	11° $\mathfrak{Z}$ 47'32	-1°-34'-12		-4037 Nov 23 j 14:56	30° $\mathbb{R}$ $\mathbb{H}$	
minimum elong	-4042 Feb 01 j 02:19	11° $\mathfrak{Z}$ 47'31	1°34'23	direct	-4037 Dec 31 j 03:13	28° $\mathbb{H}$ 43'51	
max. Earth dist.	-4042 Feb 01 j 00:51	11° $\mathfrak{Z}$ 47'02	10.10040 AU		-4036 Feb 06 j 08:26	0° $\mathbb{Y}$	
morning rise	-4042 Feb 18 j 18:20	14° $\mathfrak{Z}$ 04'46		evening set	-4036 Apr 14 j 20:46	7° $\mathbb{Y}$ 08'33	
retrograde	-4042 Jun 06 j 16:17	22° $\mathfrak{Z}$ 29'48					
opposition	-4042 Aug 14 j 05:27	18° $\mathfrak{Z}$ 59'19	-2°-13'-25	conjunction	-4036 May 03 j 00:53	9° $\mathbb{Y}$ 30'53	-1°-51'-8
min. Earth dist.	-4042 Aug 14 j 04:30	18° $\mathfrak{Z}$ 59'30	8.04195 AU	minimum elong	-4036 May 03 j 00:58	9° $\mathbb{Y}$ 30'54	1°51'09
direct	-4042 Oct 19 j 10:47	15° $\mathfrak{Z}$ 33'53		max. Earth dist.	-4036 May 03 j 18:11	9° $\mathbb{Y}$ 36'34	9.95515 AU
evening set	-4041 Jan 29 j 05:57	23° $\mathfrak{Z}$ 38'08		morning rise	-4036 May 21 j 04:13	11° $\mathbb{Y}$ 52'53	
				retrograde	-4036 Sep 02 j 16:10	20° $\mathbb{Y}$ 10'30	
conjunction	-4041 Feb 15 j 20:37	25° $\mathfrak{Z}$ 56'30	-1°-57'-27	min. Earth dist.	-4036 Nov 07 j 11:02	16° $\mathbb{Y}$ 44'37	8.00104 AU

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 31

Attention, astronomical year style is used: The year -4036 in astronomical counting style is the year 4037 BCE in historical counting style.

opposition	-4036 Nov 08 j 00:27	16° $\Upsilon$ 41'50	-2°-3'-56	minimum elong	-4030 Jul 25 j 09:25	29° $\Pi$ 23'40	1°09'24
direct	-4035 Jan 14 j 01:11	13° $\Upsilon$ 11'50		max. Earth dist.	-4030 Jul 25 j 15:13	29° $\Pi$ 25'25	10.76026 AU
evening set	-4035 Apr 30 j 04:56	21° $\Upsilon$ 31'27			-4030 Jul 30 j 10:01	0° $\Theta$	
				morning rise	-4030 Aug 11 j 13:32	1° $\Theta$ 26'56	
conjunction	-4035 May 18 j 09:03	23° $\Upsilon$ 52'05	-1°-25'-37	retrograde	-4030 Nov 18 j 10:23	8° $\Theta$ 33'06	
minimum elong	-4035 May 18 j 09:07	23° $\Upsilon$ 52'07	1°25'35	opposition	-4029 Jan 25 j 14:01	5° $\Theta$ 14'23	1°40'21
max. Earth dist.	-4035 May 19 j 02:35	23° $\Upsilon$ 57'47	10.05247 AU	min. Earth dist.	-4029 Jan 25 j 09:40	5° $\Theta$ 15'12	8.82885 AU
morning rise	-4035 Jun 05 j 10:54	26° $\Upsilon$ 11'57		direct	-4029 Apr 06 j 11:55	1° $\Theta$ 49'42	
	-4035 Jul 07 j 10:15	0° $\mathcal{R}$		evening set	-4029 Jul 20 j 11:02	9° $\Theta$ 13'49	
retrograde	-4035 Sep 16 j 17:42	4° $\mathcal{R}$ 17'14					
opposition	-4035 Nov 22 j 02:53	0° $\mathcal{R}$ 50'12	-1°-28'-44	conjunction	-4029 Aug 06 j 15:05	11° $\Theta$ 15'28	1°33'54
min. Earth dist.	-4035 Nov 21 j 13:46	0° $\mathcal{R}$ 52'53	8.11063 AU	minimum elong	-4029 Aug 06 j 15:02	11° $\Theta$ 15'27	1°34'05
	-4035 Dec 02 j 09:31	30° $\mathcal{R}$ $\Upsilon$		max. Earth dist.	-4029 Aug 06 j 18:19	11° $\Theta$ 16'26	10.89425 AU
direct	-4034 Jan 28 j 18:07	27° $\Upsilon$ 20'32		morning rise	-4029 Aug 23 j 13:53	13° $\Theta$ 15'37	
	-4034 Mar 25 j 22:12	0° $\mathcal{R}$		retrograde	-4029 Nov 30 j 04:34	20° $\Theta$ 14'13	
evening set	-4034 May 15 j 03:54	5° $\mathcal{R}$ 32'45		opposition	-4028 Feb 06 j 18:39	16° $\Theta$ 56'39	2°07'42
				min. Earth dist.	-4028 Feb 06 j 17:24	16° $\Theta$ 56'54	8.95558 AU
conjunction	-4034 Jun 02 j 06:29	7° $\mathcal{R}$ 50'56	0°-55'-33	direct	-4028 Apr 18 j 01:50	13° $\Theta$ 33'14	
minimum elong	-4034 Jun 02 j 06:32	7° $\mathcal{R}$ 50'57	0°55'29	evening set	-4028 Jul 31 j 12:03	20° $\Theta$ 49'10	
max. Earth dist.	-4034 Jun 02 j 23:09	7° $\mathcal{R}$ 56'16	10.17438 AU				
morning rise	-4034 Jun 20 j 05:32	10° $\mathcal{R}$ 07'58		conjunction	-4028 Aug 17 j 10:55	22° $\Theta$ 48'03	1°54'08
	-4034 Aug 02 j 10:49	15° $\mathcal{R}$		minimum elong	-4028 Aug 17 j 10:52	22° $\Theta$ 48'02	1°54'18
retrograde	-4034 Sep 30 j 08:44	18° $\mathcal{R}$ 00'02		max. Earth dist.	-4028 Aug 17 j 10:33	22° $\Theta$ 47'56	11.01122 AU
	-4034 Nov 30 j 17:01	15° $\mathcal{R}$ $\mathcal{R}$		morning rise	-4028 Sep 03 j 05:02	24° $\Theta$ 45'33	
opposition	-4034 Dec 05 j 21:28	14° $\mathcal{R}$ 34'47	0°-49'-24		-4028 Oct 27 j 00:42	0° $\mathcal{Q}$	
min. Earth dist.	-4034 Dec 05 j 09:33	14° $\mathcal{R}$ 37'12	8.24169 AU	retrograde	-4028 Dec 10 j 15:36	1° $\mathcal{Q}$ 38'21	
direct	-4033 Feb 12 j 05:12	11° $\mathcal{R}$ 05'43			-4027 Jan 25 j 18:16	30° $\mathcal{R}$ $\Theta$	
	-4033 Apr 23 j 06:27	15° $\mathcal{R}$		opposition	-4027 Feb 17 j 18:12	28° $\Theta$ 21'43	2°29'16
evening set	-4033 May 29 j 15:36	19° $\mathcal{R}$ 08'55		min. Earth dist.	-4027 Feb 17 j 20:07	28° $\Theta$ 21'21	9.06315 AU
				direct	-4027 Apr 30 j 08:02	24° $\Theta$ 59'30	
conjunction	-4033 Jun 16 j 15:14	21° $\mathcal{R}$ 24'04	0°-23'-10		-4027 Jul 23 j 17:18	0° $\mathcal{Q}$	
minimum elong	-4033 Jun 16 j 15:15	21° $\mathcal{R}$ 24'04	0°23'04	evening set	-4027 Aug 12 j 04:25	2° $\mathcal{Q}$ 08'26	
max. Earth dist.	-4033 Jun 17 j 05:52	21° $\mathcal{R}$ 28'41	10.31394 AU				
morning rise	-4033 Jul 04 j 10:28	23° $\mathcal{R}$ 37'50		conjunction	-4027 Aug 28 j 22:37	4° $\mathcal{Q}$ 04'59	2°09'28
	-4033 Sep 05 j 16:48	0° $\Pi$		minimum elong	-4027 Aug 28 j 22:34	4° $\mathcal{Q}$ 04'58	2°09'36
retrograde	-4033 Oct 13 j 11:06	1° $\Pi$ 16'43		max. Earth dist.	-4027 Aug 28 j 18:29	4° $\mathcal{Q}$ 03'47	11.10714 AU
	-4033 Nov 20 j 19:25	30° $\mathcal{R}$ $\mathcal{R}$		morning rise	-4027 Sep 14 j 12:50	6° $\mathcal{Q}$ 00'23	
opposition	-4033 Dec 19 j 07:39	27° $\mathcal{R}$ 53'16	0°-8'-42	retrograde	-4027 Dec 22 j 00:41	12° $\mathcal{Q}$ 49'16	
min. Earth dist.	-4033 Dec 18 j 21:37	27° $\mathcal{R}$ 55'17	8.38687 AU	opposition	-4026 Mar 01 j 14:06	9° $\mathcal{Q}$ 33'15	2°44'41
direct	-4032 Feb 26 j 09:00	24° $\mathcal{R}$ 25'04		min. Earth dist.	-4026 Mar 01 j 18:08	9° $\mathcal{Q}$ 32'30	9.14784 AU
asc. node	-4032 Mar 09 j 23:16	24° $\mathcal{R}$ 33'19		direct	-4026 May 12 j 10:11	6° $\mathcal{Q}$ 12'11	
	-4032 May 22 j 23:01	0° $\Pi$		evening set	-4026 Aug 23 j 13:26	13° $\mathcal{Q}$ 15'20	
evening set	-4032 Jun 11 j 14:53	2° $\Pi$ 18'21			-4026 Sep 07 j 17:06	15° $\mathcal{Q}$	
conjunction	-4032 Jun 29 j 10:25	4° $\Pi$ 30'07	0°09'34	conjunction	-4026 Sep 09 j 03:56	15° $\mathcal{Q}$ 10'07	2°19'40
minimum elong	-4032 Jun 29 j 10:24	4° $\Pi$ 30'06	0°09'43	minimum elong	-4026 Sep 09 j 03:55	15° $\mathcal{Q}$ 10'06	2°19'47
behind sun begin	-4032 Jun 29 j 04:29	4° $\Pi$ 28'18		max. Earth dist.	-4026 Sep 08 j 21:34	15° $\mathcal{Q}$ 08'16	11.17879 AU
behind sun end	-4032 Jun 29 j 16:19	4° $\Pi$ 31'55		morning rise	-4026 Sep 25 j 15:00	17° $\mathcal{Q}$ 03'56	
max. Earth dist.	-4032 Jun 29 j 21:59	4° $\Pi$ 33'41	10.46331 AU	retrograde	-4025 Jan 02 j 08:29	23° $\mathcal{Q}$ 50'43	
morning rise	-4032 Jul 17 j 01:05	6° $\Pi$ 40'20		opposition	-4025 Mar 13 j 07:27	20° $\mathcal{Q}$ 35'02	2°53'47
retrograde	-4032 Oct 25 j 03:19	14° $\Pi$ 06'53		min. Earth dist.	-4025 Mar 13 j 13:10	20° $\mathcal{Q}$ 33'59	9.20677 AU
opposition	-4032 Dec 31 j 09:26	10° $\Pi$ 45'11	0°30'58	direct	-4025 May 24 j 04:31	17° $\mathcal{Q}$ 15'02	
min. Earth dist.	-4032 Dec 31 j 01:17	10° $\Pi$ 46'47	8.53813 AU	evening set	-4025 Sep 03 j 17:14	24° $\mathcal{Q}$ 13'42	
direct	-4031 Mar 11 j 03:31	7° $\Pi$ 18'02					
evening set	-4031 Jun 25 j 01:39	15° $\Pi$ 01'11		conjunction	-4025 Sep 20 j 04:57	26° $\mathcal{Q}$ 07'18	2°24'36
				minimum elong	-4025 Sep 20 j 04:56	26° $\mathcal{Q}$ 07'18	2°24'42
conjunction	-4031 Jul 12 j 16:15	17° $\Pi$ 09'26	0°40'46	max. Earth dist.	-4025 Sep 19 j 20:48	26° $\mathcal{Q}$ 04'56	11.22383 AU
minimum elong	-4031 Jul 12 j 16:14	17° $\Pi$ 09'25	0°40'57	morning rise	-4025 Oct 06 j 13:47	28° $\mathcal{Q}$ 00'09	
max. Earth dist.	-4031 Jul 13 j 00:31	17° $\Pi$ 11'57	10.61450 AU		-4025 Oct 24 j 20:30	0° $\mathcal{M}$	
morning rise	-4031 Jul 30 j 01:45	19° $\Pi$ 16'05		retrograde	-4024 Jan 13 j 16:14	4° $\mathcal{M}$ 46'33	
retrograde	-4031 Nov 06 j 10:51	26° $\Pi$ 31'37		opposition	-4024 Mar 23 j 23:32	1° $\mathcal{M}$ 30'56	2°56'31
opposition	-4030 Jan 13 j 03:13	23° $\Pi$ 11'30	1°07'47	min. Earth dist.	-4024 Mar 24 j 07:47	1° $\mathcal{M}$ 29'26	9.23808 AU
min. Earth dist.	-4030 Jan 12 j 20:46	23° $\Pi$ 12'45	8.68773 AU		-4024 Apr 14 j 13:34	30° $\mathcal{R}$ $\mathcal{Q}$	
direct	-4030 Mar 24 j 12:07	19° $\Pi$ 45'34		direct	-4024 Jun 03 j 18:59	28° $\mathcal{Q}$ 11'49	
evening set	-4030 Jul 08 j 00:05	27° $\Pi$ 18'51			-4024 Jul 22 j 09:56	0° $\mathcal{M}$	
				evening set	-4024 Sep 13 j 17:32	5° $\mathcal{M}$ 07'26	
conjunction	-4030 Jul 25 j 09:28	29° $\Pi$ 23'41	1°09'13				

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 32

Attention, astronomical year style is used: The year -4024 in astronomical counting style is the year 4025 BCE in historical counting style.

conjunction	-4024 Sep 30 j 03:13	7° $\mathring{M}$ 00'24	2°24'16			-4018 Dec 10 j 12:35	15° $\mathring{M}$	
minimum elong	-4024 Sep 30 j 03:14	7° $\mathring{M}$ 00'24	2°24'21	morning rise		-4018 Dec 22 j 11:31	16° $\mathring{M}$ 26'17	
max. Earth dist.	-4024 Sep 29 j 16:10	6° $\mathring{M}$ 57'12	11.24085 AU	retrograde		-4017 Apr 05 j 20:55	23° $\mathring{M}$ 55'59	
morning rise	-4024 Oct 16 j 11:02	8° $\mathring{M}$ 52'53		opposition		-4017 Jun 15 j 14:55	20° $\mathring{M}$ 32'59	0°31'44
retrograde	-4023 Jan 24 j 00:52	15° $\mathring{M}$ 40'37		min. Earth dist.		-4017 Jun 16 j 02:50	20° $\mathring{M}$ 30'44	8.71130 AU
opposition	-4023 Apr 04 j 15:55	12° $\mathring{M}$ 24'47	2°52'55	direct		-4017 Aug 23 j 11:30	17° $\mathring{M}$ 13'33	
min. Earth dist.	-4023 Apr 05 j 02:38	12° $\mathring{M}$ 22'50	9.24081 AU	evening set		-4017 Dec 01 j 00:17	24° $\mathring{M}$ 29'12	
direct	-4023 Jun 15 j 06:50	9° $\mathring{M}$ 06'21						
evening set	-4023 Sep 24 j 15:50	16° $\mathring{M}$ 00'17		conjunction		-4017 Dec 17 j 21:11	26° $\mathring{M}$ 33'04	0°10'51
max. Earth dist.	-4023 Oct 10 j 11:17	17° $\mathring{M}$ 49'23	11.22939 AU	minimum elong		-4017 Dec 17 j 21:12	26° $\mathring{M}$ 33'04	0°10'43
				behind sun begin		-4017 Dec 17 j 15:44	26° $\mathring{M}$ 31'24	
conjunction	-4023 Oct 11 j 00:32	17° $\mathring{M}$ 53'13	2°18'42	behind sun end		-4017 Dec 18 j 02:40	26° $\mathring{M}$ 34'44	
minimum elong	-4023 Oct 11 j 00:34	17° $\mathring{M}$ 53'13	2°18'46	max. Earth dist.		-4017 Dec 17 j 08:03	26° $\mathring{M}$ 29'01	10.63717 AU
morning rise	-4023 Oct 27 j 08:25	19° $\mathring{M}$ 45'57		morning rise		-4016 Jan 03 j 22:10	28° $\mathring{M}$ 38'17	
retrograde	-4022 Feb 04 j 11:48	26° $\mathring{M}$ 36'45				-4016 Jan 15 j 10:11	0° $\mathring{Z}$	
opposition	-4022 Apr 16 j 09:39	23° $\mathring{M}$ 20'21	2°43'06	retrograde		-4016 Apr 18 j 07:35	6° $\mathring{Z}$ 19'54	
min. Earth dist.	-4022 Apr 16 j 21:38	23° $\mathring{M}$ 18'10	9.21486 AU	desc. node		-4016 Apr 26 j 12:53	6° $\mathring{Z}$ 16'30	
direct	-4022 Jun 26 j 18:48	20° $\mathring{M}$ 02'23		opposition		-4016 Jun 27 j 16:12	2° $\mathring{Z}$ 55'09	0°-6'-23
evening set	-4022 Oct 05 j 14:10	26° $\mathring{M}$ 56'05		min. Earth dist.		-4016 Jun 28 j 02:13	2° $\mathring{Z}$ 53'13	8.55904 AU
						-4016 Aug 12 j 19:30	30° $\mathring{R}$ $\mathring{M}$	
conjunction	-4022 Oct 21 j 23:03	28° $\mathring{M}$ 49'34	2°08'03	direct		-4016 Sep 03 j 20:51	29° $\mathring{M}$ 34'41	
minimum elong	-4022 Oct 21 j 23:05	28° $\mathring{M}$ 49'35	2°08'05			-4016 Sep 25 j 15:13	0° $\mathring{Z}$	
max. Earth dist.	-4022 Oct 21 j 09:22	28° $\mathring{M}$ 45'35	11.18971 AU	evening set		-4016 Dec 12 j 14:41	6° $\mathring{Z}$ 59'32	
	-4022 Nov 01 j 01:31	0° $\mathring{Z}$						
morning rise	-4022 Nov 07 j 07:49	0° $\mathring{Z}$ 43'07		conjunction		-4016 Dec 29 j 15:21	9° $\mathring{Z}$ 06'35	0°-20'-40
retrograde	-4021 Feb 16 j 05:55	7° $\mathring{Z}$ 38'36		minimum elong		-4016 Dec 29 j 15:20	9° $\mathring{Z}$ 06'35	0°20'50
opposition	-4021 Apr 28 j 05:43	4° $\mathring{Z}$ 21'21	2°27'16	max. Earth dist.		-4016 Dec 29 j 03:24	9° $\mathring{Z}$ 02'51	10.48213 AU
min. Earth dist.	-4021 Apr 28 j 18:00	4° $\mathring{Z}$ 19'07	9.16097 AU	morning rise		-4015 Jan 15 j 20:49	11° $\mathring{Z}$ 15'13	
direct	-4021 Jul 08 j 07:01	1° $\mathring{Z}$ 03'39		retrograde		-4015 May 02 j 04:16	19° $\mathring{Z}$ 09'28	
evening set	-4021 Oct 16 j 14:23	7° $\mathring{Z}$ 58'34		opposition		-4015 Jul 11 j 01:57	15° $\mathring{Z}$ 42'57	0°-45'-38
max. Earth dist.	-4021 Nov 01 j 09:53	9° $\mathring{Z}$ 48'57	11.12291 AU	min. Earth dist.		-4015 Jul 11 j 09:59	15° $\mathring{Z}$ 41'23	8.40314 AU
				direct		-4015 Sep 16 j 14:23	12° $\mathring{Z}$ 21'13	
conjunction	-4021 Nov 02 j 00:18	9° $\mathring{Z}$ 53'11	1°52'33	evening set		-4015 Dec 25 j 17:56	19° $\mathring{Z}$ 56'32	
minimum elong	-4021 Nov 02 j 00:21	9° $\mathring{Z}$ 53'12	1°52'32					
morning rise	-4021 Nov 18 j 10:56	11° $\mathring{Z}$ 48'07		conjunction		-4014 Jan 11 j 22:33	22° $\mathring{Z}$ 06'55	0°-52'-4
retrograde	-4020 Feb 28 j 03:36	18° $\mathring{Z}$ 49'53		minimum elong		-4014 Jan 11 j 22:31	22° $\mathring{Z}$ 06'54	0°52'15
opposition	-4020 May 09 j 05:41	15° $\mathring{Z}$ 31'32	2°05'41	max. Earth dist.		-4014 Jan 11 j 12:57	22° $\mathring{Z}$ 03'51	10.32735 AU
min. Earth dist.	-4020 May 09 j 18:38	15° $\mathring{Z}$ 29'10	9.08072 AU	morning rise		-4014 Jan 29 j 08:30	24° $\mathring{Z}$ 19'01	
direct	-4020 Jul 18 j 18:14	12° $\mathring{Z}$ 13'49				-4014 Mar 22 j 20:27	0° $\mathring{Z}$	
evening set	-4020 Oct 26 j 18:23	19° $\mathring{Z}$ 11'31		retrograde		-4014 May 16 j 10:17	2° $\mathring{Z}$ 25'55	
						-4014 Jul 11 j 13:34	30° $\mathring{R}$ $\mathring{Z}$	
conjunction	-4020 Nov 12 j 05:58	21° $\mathring{Z}$ 07'45	1°32'31	opposition		-4014 Jul 24 j 20:07	28° $\mathring{Z}$ 57'42	-1°-23'-57
minimum elong	-4020 Nov 12 j 06:01	21° $\mathring{Z}$ 07'46	1°32'27	min. Earth dist.		-4014 Jul 25 j 01:55	28° $\mathring{Z}$ 56'33	8.25210 AU
max. Earth dist.	-4020 Nov 11 j 14:21	21° $\mathring{Z}$ 03'08	11.03106 AU	direct		-4014 Sep 29 j 18:52	25° $\mathring{Z}$ 34'33	
morning rise	-4020 Nov 28 j 19:25	23° $\mathring{Z}$ 04'36				-4014 Dec 11 j 08:00	0° $\mathring{Z}$	
	-4019 Feb 22 j 05:30	0° $\mathring{M}$		evening set		-4013 Jan 08 j 11:01	3° $\mathring{Z}$ 21'06	
retrograde	-4019 Mar 11 j 08:48	0° $\mathring{M}$ 14'14						
	-4019 Mar 28 j 15:12	30° $\mathring{R}$ $\mathring{Z}$		conjunction		-4013 Jan 25 j 19:40	5° $\mathring{Z}$ 34'47	-1°-21'-37
opposition	-4019 May 21 j 10:38	26° $\mathring{Z}$ 54'33	1°38'48	minimum elong		-4013 Jan 25 j 19:37	5° $\mathring{Z}$ 34'46	1°21'49
min. Earth dist.	-4019 May 22 j 00:16	26° $\mathring{Z}$ 52'01	8.97673 AU	max. Earth dist.		-4013 Jan 25 j 13:44	5° $\mathring{Z}$ 32'51	10.18142 AU
direct	-4019 Jul 30 j 11:19	23° $\mathring{Z}$ 36'30		morning rise		-4013 Feb 12 j 09:45	7° $\mathring{Z}$ 50'12	
	-4019 Nov 01 j 15:08	0° $\mathring{M}$		retrograde		-4013 May 31 j 01:04	16° $\mathring{Z}$ 08'54	
evening set	-4019 Nov 07 j 04:06	0° $\mathring{M}$ 38'34		opposition		-4013 Aug 07 j 22:04	12° $\mathring{Z}$ 39'12	-1°-58'-56
				min. Earth dist.		-4013 Aug 08 j 00:52	12° $\mathring{Z}$ 38'38	8.11463 AU
conjunction	-4019 Nov 23 j 18:11	2° $\mathring{M}$ 36'55	1°08'25	direct		-4013 Oct 13 j 09:32	9° $\mathring{Z}$ 14'32	
minimum elong	-4019 Nov 23 j 18:14	2° $\mathring{M}$ 36'56	1°08'20	evening set		-4012 Jan 22 j 17:50	17° $\mathring{Z}$ 12'26	
max. Earth dist.	-4019 Nov 23 j 02:33	2° $\mathring{M}$ 32'14	10.91706 AU					
morning rise	-4019 Dec 10 j 11:08	4° $\mathring{M}$ 36'11		conjunction		-4012 Feb 09 j 06:30	19° $\mathring{Z}$ 29'11	-1°-47'-20
retrograde	-4018 Mar 23 j 22:12	11° $\mathring{M}$ 55'09		minimum elong		-4012 Feb 09 j 06:27	19° $\mathring{Z}$ 29'10	1°47'31
opposition	-4018 Jun 02 j 21:22	8° $\mathring{M}$ 33'53	1°07'11	max. Earth dist.		-4012 Feb 09 j 05:14	19° $\mathring{Z}$ 28'46	10.05313 AU
min. Earth dist.	-4018 Jun 03 j 10:42	8° $\mathring{M}$ 31'23	8.85231 AU	morning rise		-4012 Feb 27 j 00:16	21° $\mathring{Z}$ 47'37	
direct	-4018 Aug 11 j 08:10	5° $\mathring{M}$ 15'16				-4012 May 27 j 15:29	0° $\mathring{\approx}$	
evening set	-4018 Nov 18 j 21:21	12° $\mathring{M}$ 23'17		retrograde		-4012 Jun 14 j 00:21	0° $\mathring{\approx}$ 16'17	
						-4012 Jul 01 j 10:52	30° $\mathring{R}$ $\mathring{Z}$	
conjunction	-4018 Dec 05 j 14:42	14° $\mathring{M}$ 24'13	0°40'54	opposition		-4012 Aug 21 j 07:07	26° $\mathring{Z}$ 45'23	-2°-27'-56
minimum elong	-4018 Dec 05 j 14:44	14° $\mathring{M}$ 24'13	0°40'47	min. Earth dist.		-4012 Aug 21 j 06:15	26° $\mathring{Z}$ 45'34	7.99916 AU
max. Earth dist.	-4018 Dec 05 j 00:17	14° $\mathring{M}$ 19'50	10.78432 AU	direct		-4012 Oct 26 j 09:10	23° $\mathring{Z}$ 19'14	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 33

Attention, astronomical year style is used: The year -4011 in astronomical counting style is the year 4012 BCE in historical counting style.

	-4011 Jan 25 j 01:38	0°♊		conjunction	-4005 May 26 j 14:29	1°♏27'35	-1°-10'-29
evening set	-4011 Feb 05 j 13:23	1°♊27'44		minimum elong	-4005 May 26 j 14:33	1°♏27'36	1°10'26
				max. Earth dist.	-4005 May 27 j 07:10	1°♏32'58	10.09831 AU
conjunction	-4011 Feb 23 j 05:56	3°♊47'09	-2°-7'-10	morning rise	-4005 Jun 13 j 15:18	3°♏46'16	
minimum elong	-4011 Feb 23 j 05:53	3°♊47'08	2°07'20	retrograde	-4005 Sep 24 j 06:57	11°♏45'15	
max. Earth dist.	-4011 Feb 23 j 09:41	3°♊48'24	9.95070 AU	opposition	-4005 Nov 29 j 18:41	8°♏18'36	-1°-8'-43
morning rise	-4011 Mar 13 j 02:58	6°♊08'05		min. Earth dist.	-4005 Nov 29 j 05:45	8°♏21'15	8.16280 AU
retrograde	-4011 Jun 29 j 04:43	14°♊43'49		direct	-4004 Feb 05 j 19:39	4°♏48'44	
opposition	-4011 Sep 04 j 21:28	11°♊12'07	-2°-48'-23	evening set	-4004 May 22 j 04:18	12°♏56'50	
min. Earth dist.	-4011 Sep 04 j 16:47	11°♊13'06	7.91309 AU		-4004 Jun 07 j 10:42	15°♏	
direct	-4011 Nov 09 j 17:48	7°♊44'34					
	-4010 Feb 12 j 19:28	15°♊		conjunction	-4004 Jun 09 j 05:36	15°♏13'39	0°-38'-55
evening set	-4010 Feb 20 j 19:50	16°♊02'01		minimum elong	-4004 Jun 09 j 05:38	15°♏13'39	0°38'50
				max. Earth dist.	-4004 Jun 09 j 21:27	15°♏18'41	10.23280 AU
conjunction	-4010 Mar 10 j 16:00	18°♊23'33	-2°-19'-18	morning rise	-4004 Jun 27 j 03:05	17°♏29'13	
minimum elong	-4010 Mar 10 j 15:58	18°♊23'33	2°19'27	retrograde	-4004 Oct 06 j 14:39	25°♏14'49	
max. Earth dist.	-4010 Mar 11 j 00:10	18°♊26'16	9.88101 AU	opposition	-4004 Dec 12 j 08:48	21°♏50'05	0°-28'-18
morning rise	-4010 Mar 28 j 15:46	20°♊46'18		min. Earth dist.	-4004 Dec 11 j 20:31	21°♏52'33	8.30487 AU
retrograde	-4010 Jul 14 j 10:53	29°♊25'15		direct	-4003 Feb 19 j 02:57	18°♏21'07	
opposition	-4010 Sep 19 j 14:57	25°♊53'15	-2°-58'-15	evening set	-4003 Jun 05 j 09:48	26°♏19'36	
min. Earth dist.	-4010 Sep 19 j 07:05	25°♊54'53	7.86220 AU				
direct	-4010 Nov 24 j 10:00	22°♊24'27		conjunction	-4003 Jun 23 j 07:40	28°♏33'09	0°-6'-9
	-4009 Mar 02 j 04:41	0°♋		minimum elong	-4003 Jun 23 j 07:39	28°♏33'09	0°06'02
evening set	-4009 Mar 08 j 09:46	0°♋48'19		behind sun begin	-4003 Jun 23 j 00:45	28°♏31'01	
				behind sun end	-4003 Jun 23 j 14:33	28°♏35'17	
conjunction	-4009 Mar 26 j 09:06	3°♋11'14	-2°-22'-30	max. Earth dist.	-4003 Jun 23 j 21:57	28°♏37'37	10.38143 AU
minimum elong	-4009 Mar 26 j 09:07	3°♋11'14	2°22'36		-4003 Jul 04 j 21:55	0°♌	
max. Earth dist.	-4009 Mar 26 j 21:03	3°♋15'13	9.84894 AU	morning rise	-4003 Jul 11 j 00:43	0°♌45'13	
morning rise	-4009 Apr 13 j 11:00	5°♋34'59		asc. node	-4003 Sep 01 j 23:26	6°♌19'10	
retrograde	-4009 Jul 29 j 15:21	14°♋12'51		retrograde	-4003 Oct 19 j 13:42	8°♌17'59	
opposition	-4009 Oct 04 j 09:20	10°♋41'03	-2°-56'-21	opposition	-4003 Dec 25 j 14:44	4°♌55'12	0°12'11
min. Earth dist.	-4009 Oct 03 j 23:06	10°♋43'12	7.85002 AU	min. Earth dist.	-4003 Dec 25 j 04:05	4°♌57'19	8.45726 AU
direct	-4009 Dec 09 j 07:34	7°♋11'18		direct	-4002 Mar 05 j 00:22	1°♌27'24	
evening set	-4008 Mar 23 j 02:55	15°♋38'17		evening set	-4002 Jun 19 j 02:48	9°♌15'45	
conjunction	-4008 Apr 10 j 04:53	18°♋01'44	-2°-16'-19	conjunction	-4002 Jul 06 j 20:04	11°♌25'48	0°26'05
minimum elong	-4008 Apr 10 j 04:55	18°♋01'44	2°16'23	minimum elong	-4002 Jul 06 j 20:03	11°♌25'48	0°26'14
max. Earth dist.	-4008 Apr 10 j 19:45	18°♋06'40	9.85677 AU	max. Earth dist.	-4002 Jul 07 j 08:07	11°♌29'31	10.53595 AU
morning rise	-4008 Apr 28 j 08:11	20°♋25'34		morning rise	-4002 Jul 24 j 08:02	13°♌34'15	
retrograde	-4008 Aug 12 j 14:26	28°♋58'08		retrograde	-4002 Nov 01 j 02:36	20°♌55'17	
opposition	-4008 Oct 18 j 01:53	25°♋27'02	-2°-42'-46	opposition	-4001 Jan 07 j 12:40	17°♌34'23	0°50'38
min. Earth dist.	-4008 Oct 17 j 14:09	25°♋29'30	7.87729 AU	min. Earth dist.	-4001 Jan 07 j 04:40	17°♌35'57	8.61202 AU
direct	-4008 Dec 23 j 07:34	21°♋56'39		direct	-4001 Mar 18 j 12:49	14°♌07'55	
	-4007 Apr 04 j 19:20	0°♍		evening set	-4001 Jul 02 j 07:32	21°♌46'13	
evening set	-4007 Apr 07 j 19:32	0°♍23'17					
				conjunction	-4001 Jul 19 j 19:30	23°♌52'45	0°56'03
conjunction	-4007 Apr 25 j 23:14	2°♍46'21	-2°-1'-15	minimum elong	-4001 Jul 19 j 19:28	23°♌52'44	0°56'13
minimum elong	-4007 Apr 25 j 23:18	2°♍46'22	2°01'17	max. Earth dist.	-4001 Jul 20 j 03:56	23°♌55'18	10.68871 AU
max. Earth dist.	-4007 Apr 26 j 15:45	2°♍51'48	9.90370 AU	morning rise	-4001 Aug 06 j 02:11	25°♌57'41	
morning rise	-4007 May 14 j 02:58	5°♍09'20			-4001 Sep 12 j 09:06	0°♎	
retrograde	-4007 Aug 27 j 05:57	13°♍32'54		retrograde	-4001 Nov 13 j 05:01	3°♎08'28	
opposition	-4007 Nov 01 j 14:04	10°♍02'58	-2°-18'-44		-4000 Jan 17 j 19:16	30°♎♌	
min. Earth dist.	-4007 Nov 01 j 01:39	10°♍05'34	7.94190 AU	opposition	-4000 Jan 20 j 03:01	29°♌49'16	1°25'25
direct	-4006 Jan 07 j 07:27	6°♍32'20		min. Earth dist.	-4000 Jan 19 j 21:40	29°♌50'18	8.76173 AU
evening set	-4006 Apr 23 j 07:25	14°♍55'19		direct	-4000 Mar 30 j 17:27	26°♌24'11	
					-4000 Jun 08 j 00:00	0°♎	
conjunction	-4006 May 11 j 11:41	17°♍17'05	-1°-38'-40	evening set	-4000 Jul 14 j 00:31	3°♎52'58	
minimum elong	-4006 May 11 j 11:45	17°♍17'06	1°38'39				
max. Earth dist.	-4006 May 12 j 04:37	17°♍22'37	9.98616 AU	conjunction	-4000 Jul 31 j 07:02	5°♎56'09	1°22'40
morning rise	-4006 May 29 j 14:36	19°♍38'18		minimum elong	-4000 Jul 31 j 06:59	5°♎56'08	1°22'51
retrograde	-4006 Sep 10 j 11:53	27°♍50'18		max. Earth dist.	-4000 Jul 31 j 11:33	5°♎57'30	10.83275 AU
opposition	-4006 Nov 15 j 20:10	24°♍21'52	-1°-46'-28	morning rise	-4000 Aug 17 j 08:29	7°♎57'48	
min. Earth dist.	-4006 Nov 15 j 07:22	24°♍24'31	8.03924 AU	retrograde	-4000 Nov 24 j 01:55	15°♎00'05	
direct	-4005 Jan 22 j 04:15	20°♍51'25		opposition	-3999 Jan 31 j 10:52	11°♎42'18	1°55'22
evening set	-4005 May 08 j 11:02	29°♍07'58		min. Earth dist.	-3999 Jan 31 j 07:43	11°♎42'54	8.89963 AU
	-4005 May 15 j 06:33	0°♏		direct	-3999 Apr 12 j 13:21	8°♎18'37	
				evening set	-3999 Jul 26 j 06:45	15°♎38'40	

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 34

Attention, astronomical year style is used: The year -3999 in astronomical counting style is the year 4000 BCE in historical counting style.

conjunction	-3999 Aug 12 j 08:00	17° <del>38</del> '50	1°45'06	max. Earth dist.	-3993 Oct 16 j 17:13	23° <del>17</del> '56'49	11.20688 AU
minimum elong	-3999 Aug 12 j 07:57	17° <del>38</del> '49	1°45'16	morning rise	-3993 Nov 02 j 16:20	25° <del>17</del> '54'18	
max. Earth dist.	-3999 Aug 12 j 09:30	17° <del>39</del> '17	10.96187 AU		-3993 Dec 12 j 15:42	0° <del>18</del>	
morning rise	-3999 Aug 29 j 04:24	19° <del>37</del> '35		retrograde	-3992 Feb 11 j 05:41	2° <del>18</del> '47'38	
retrograde	-3999 Dec 05 j 17:01	26° <del>33</del> '09			-3992 Apr 15 j 11:06	30° <del>18</del> ' <del>17</del>	
opposition	-3998 Feb 12 j 13:13	23° <del>16</del> '29	2°19'45	opposition	-3992 Apr 22 j 04:05	29° <del>17</del> '30'46	2°35'17
min. Earth dist.	-3998 Feb 12 j 12:18	23° <del>16</del> '40	9.01992 AU	min. Earth dist.	-3992 Apr 22 j 17:56	29° <del>17</del> '28'14	9.18248 AU
direct	-3998 Apr 25 j 00:12	19° <del>54</del> '09		direct	-3992 Jul 02 j 08:39	26° <del>17</del> '12'48	
evening set	-3998 Aug 07 j 03:34	27° <del>06</del> '29			-3992 Sep 11 j 17:38	0° <del>18</del>	
				evening set	-3992 Oct 10 j 22:45	3° <del>18</del> '07'19	
conjunction	-3998 Aug 24 j 00:03	29° <del>04</del> '04	2°02'48	conjunction	-3992 Oct 27 j 08:00	5° <del>18</del> '01'25	2°00'16
minimum elong	-3998 Aug 24 j 00:00	29° <del>04</del> '04	2°02'57	minimum elong	-3992 Oct 27 j 08:03	5° <del>18</del> '01'26	2°00'16
max. Earth dist.	-3998 Aug 23 j 23:00	29° <del>03</del> '46	11.07086 AU	max. Earth dist.	-3992 Oct 26 j 15:45	4° <del>18</del> '56'40	11.14820 AU
	-3998 Aug 31 j 23:10	0° <del>19</del>		morning rise	-3992 Nov 12 j 17:49	6° <del>18</del> '55'45	
morning rise	-3998 Sep 09 j 15:56	1° <del>19</del> '00'24		retrograde	-3991 Feb 21 j 23:37	13° <del>18</del> '54'42	
retrograde	-3998 Dec 17 j 04:48	7° <del>15</del> '1'05		opposition	-3991 May 04 j 02:25	10° <del>18</del> '36'37	2°16'21
opposition	-3997 Feb 24 j 11:15	4° <del>13</del> '5'14	2°38'06	min. Earth dist.	-3991 May 04 j 16:50	10° <del>18</del> '33'59	9.11000 AU
min. Earth dist.	-3997 Feb 24 j 13:39	4° <del>13</del> '44'7	9.11780 AU	direct	-3991 Jul 13 j 21:13	7° <del>18</del> '18'34	
direct	-3997 May 07 j 03:56	1° <del>19</del> '14'06		evening set	-3991 Oct 22 j 00:42	14° <del>18</del> '15'11	
evening set	-3997 Aug 18 j 16:28	8° <del>19</del> '19'57					
conjunction	-3997 Sep 04 j 08:42	10° <del>15</del> '29	2°15'27	conjunction	-3991 Nov 07 j 11:31	16° <del>18</del> '10'44	1°42'18
minimum elong	-3997 Sep 04 j 08:40	10° <del>15</del> '29	2°15'34	minimum elong	-3991 Nov 07 j 11:34	16° <del>18</del> '10'44	1°42'15
max. Earth dist.	-3997 Sep 04 j 03:47	10° <del>14</del> '04	11.15534 AU	max. Earth dist.	-3991 Nov 06 j 19:36	16° <del>18</del> '06'02	11.06362 AU
morning rise	-3997 Sep 20 j 21:05	12° <del>09</del> '58		morning rise	-3991 Nov 23 j 23:37	18° <del>06</del> '45	
	-3997 Oct 17 j 06:07	15° <del>08</del>		retrograde	-3990 Mar 06 j 02:52	25° <del>05</del> '12'56	
retrograde	-3997 Dec 28 j 12:25	18° <del>05</del> '7'36		opposition	-3990 May 16 j 05:00	21° <del>05</del> '53'26	1°51'53
opposition	-3996 Mar 07 j 06:06	15° <del>04</del> '2'15	2°50'10	min. Earth dist.	-3990 May 16 j 18:53	21° <del>05</del> '50'52	9.01284 AU
min. Earth dist.	-3996 Mar 07 j 12:03	15° <del>04</del> '1'09	9.18922 AU	direct	-3990 Jul 25 j 13:32	18° <del>03</del> '35'04	
	-3996 Mar 16 j 21:46	15° <del>04</del> ' <del>18</del>		evening set	-3990 Nov 02 j 07:35	25° <del>03</del> '35'21	
direct	-3996 May 18 j 00:51	12° <del>02</del> '22'10					
	-3996 Jul 16 j 12:11	15° <del>02</del>		conjunction	-3990 Nov 18 j 20:39	27° <del>03</del> '32'51	1°20'02
evening set	-3996 Aug 28 j 23:12	19° <del>02</del> '22'56		minimum elong	-3990 Nov 18 j 20:42	27° <del>03</del> '32'52	1°19'57
				max. Earth dist.	-3990 Nov 18 j 05:03	27° <del>03</del> '28'11	10.95590 AU
conjunction	-3996 Sep 14 j 11:59	21° <del>01</del> '7'00	2°22'51	morning rise	-3990 Dec 05 j 11:50	29° <del>03</del> '31'05	
minimum elong	-3996 Sep 14 j 11:58	21° <del>01</del> '7'00	2°22'57		-3990 Dec 09 j 15:34	0° <del>18</del> ' <del>17</del>	
max. Earth dist.	-3996 Sep 14 j 03:08	21° <del>01</del> '14'27	11.21208 AU	retrograde	-3989 Mar 18 j 12:45	6° <del>18</del> '46'00	
morning rise	-3996 Sep 30 j 21:51	23° <del>01</del> '10'15		opposition	-3989 May 28 j 12:49	3° <del>18</del> '24'55	1°22'22
retrograde	-3995 Jan 07 j 19:28	29° <del>05</del> '56'44		min. Earth dist.	-3989 May 29 j 02:06	3° <del>18</del> '22'27	8.89428 AU
opposition	-3995 Mar 18 j 23:05	26° <del>04</del> '1'31	2°55'53	direct	-3989 Aug 06 j 06:35	0° <del>18</del> '06'02	
min. Earth dist.	-3995 Mar 19 j 07:27	26° <del>04</del> '39'59	9.23173 AU	evening set	-3989 Nov 13 j 21:14	7° <del>18</del> '11'39	
direct	-3995 May 29 j 19:24	23° <del>02</del> '22'18					
	-3995 Sep 06 j 04:22	0° <del>18</del> ' <del>17</del>		conjunction	-3989 Nov 30 j 13:03	9° <del>18</del> '11'31	0°53'59
evening set	-3995 Sep 09 j 01:24	0° <del>18</del> ' <del>17</del> '26		minimum elong	-3989 Nov 30 j 13:05	9° <del>18</del> '11'32	0°53'53
				max. Earth dist.	-3989 Nov 29 j 21:09	9° <del>18</del> '06'44	10.82880 AU
conjunction	-3995 Sep 25 j 11:54	2° <del>17</del> '12'38	2°24'59	morning rise	-3989 Dec 17 j 08:03	11° <del>18</del> '12'26	
minimum elong	-3995 Sep 25 j 11:54	2° <del>17</del> '12'38	2°25'04		-3988 Jan 21 j 02:36	15° <del>18</del> ' <del>17</del>	
max. Earth dist.	-3995 Sep 25 j 01:02	2° <del>17</del> '09'29	11.23966 AU	retrograde	-3988 Mar 30 j 06:41	18° <del>18</del> '37'33	
morning rise	-3995 Oct 11 j 20:08	4° <del>17</del> '05'14		opposition	-3988 Jun 09 j 03:20	15° <del>18</del> '14'47	0°48'33
retrograde	-3994 Jan 19 j 05:07	10° <del>17</del> '52'20		min. Earth dist.	-3988 Jun 09 j 16:12	15° <del>18</del> '12'21	8.75865 AU
opposition	-3994 Mar 30 j 15:39	7° <del>17</del> '36'54	2°55'15		-3988 Jun 12 j 09:33	15° <del>18</del> ' <del>17</del>	
min. Earth dist.	-3994 Mar 31 j 01:31	7° <del>17</del> '35'06	9.24459 AU	direct	-3988 Aug 17 j 06:17	11° <del>18</del> '55'08	
direct	-3994 Jun 10 j 09:43	4° <del>17</del> '18'23			-3988 Oct 17 j 20:11	15° <del>18</del> ' <del>17</del>	
evening set	-3994 Sep 20 j 00:45	11° <del>17</del> '13'10		evening set	-3988 Nov 24 j 19:24	19° <del>18</del> '07'42	
conjunction	-3994 Oct 06 j 09:58	13° <del>17</del> '06'06	2°21'50	conjunction	-3988 Dec 11 j 14:33	21° <del>18</del> '10'22	0°24'58
minimum elong	-3994 Oct 06 j 10:00	13° <del>17</del> '06'06	2°21'54	minimum elong	-3988 Dec 11 j 14:34	21° <del>18</del> '10'22	0°24'51
max. Earth dist.	-3994 Oct 05 j 21:32	13° <del>17</del> '02'30	11.23777 AU	max. Earth dist.	-3988 Dec 10 j 23:47	21° <del>18</del> '05'50	10.68703 AU
morning rise	-3994 Oct 22 j 17:36	14° <del>17</del> '58'41		morning rise	-3988 Dec 28 j 13:46	23° <del>18</del> '14'18	
retrograde	-3993 Jan 30 j 15:39	21° <del>17</del> '48'06			-3987 Mar 11 j 07:00	0° <del>18</del> ' <del>17</del>	
opposition	-3993 Apr 11 j 08:58	18° <del>17</del> '32'06	2°48'20	retrograde	-3987 Apr 12 j 11:37	0° <del>18</del> ' <del>17</del> '50'53	
min. Earth dist.	-3993 Apr 11 j 20:43	18° <del>17</del> '29'57	9.22789 AU		-3987 May 15 j 01:47	30° <del>18</del> ' <del>17</del>	
direct	-3993 Jun 21 j 20:55	15° <del>17</del> '13'59		opposition	-3987 Jun 22 j 01:16	27° <del>18</del> '26'21	0°11'26
evening set	-3993 Sep 30 j 23:21	22° <del>17</del> '07'54		min. Earth dist.	-3987 Jun 22 j 12:47	27° <del>18</del> '24'09	8.61128 AU
				direct	-3987 Aug 29 j 13:23	24° <del>18</del> '05'46	
conjunction	-3993 Oct 17 j 08:05	24° <del>17</del> '01'08	2°13'32	desc. node	-3987 Oct 12 j 07:14	25° <del>18</del> '44'32	
minimum elong	-3993 Oct 17 j 08:07	24° <del>17</del> '01'09	2°13'34		-3987 Nov 25 j 00:58	0° <del>18</del> ' <del>17</del>	



## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 35

Attention, astronomical year style is used: The year -3987 in astronomical counting style is the year 3988 BCE in historical counting style.

evening set	-3987 Dec 07 j 04:16	1°♂26'49		conjunction	-3980 Mar 18 j 14:07	26°♂41'18	-2°-22'-5
				minimum elong	-3980 Mar 18 j 14:07	26°♂41'18	2°22'12
conjunction	-3987 Dec 24 j 03:16	3°♂32'34	0°-6'-6	max. Earth dist.	-3980 Mar 19 j 00:46	26°♂44'51	9.86382 AU
minimum elong	-3987 Dec 24 j 03:14	3°♂32'34	0°06'15	morning rise	-3980 Apr 05 j 15:13	29°♂04'41	
behind sun begin	-3987 Dec 23 j 20:32	3°♂30'30			-3980 Apr 12 j 18:21	0°♂	
behind sun end	-3987 Dec 24 j 09:57	3°♂34'38		retrograde	-3980 Jul 22 j 03:42	7°♂43'40	
max. Earth dist.	-3987 Dec 23 j 15:06	3°♂28'48	10.53625 AU	opposition	-3980 Sep 27 j 02:19	4°♂12'08	-2°-58'-30
morning rise	-3986 Jan 10 j 06:47	5°♂39'48		min. Earth dist.	-3980 Sep 26 j 16:48	4°♂14'08	7.85787 AU
retrograde	-3986 Apr 26 j 02:28	13°♂28'43		direct	-3980 Dec 01 j 22:40	0°♂43'15	
opposition	-3986 Jul 05 j 07:05	10°♂02'26	0°-27'-32	evening set	-3979 Mar 16 j 08:53	9°♂09'08	
min. Earth dist.	-3986 Jul 05 j 16:08	10°♂00'40	8.45849 AU				
direct	-3986 Sep 11 j 03:51	6°♂40'45		conjunction	-3979 Apr 03 j 09:42	11°♂32'22	-2°-20'-8
evening set	-3986 Dec 20 j 01:26	14°♂11'39		minimum elong	-3979 Apr 03 j 09:44	11°♂32'22	2°20'13
				max. Earth dist.	-3979 Apr 04 j 00:10	11°♂37'11	9.85742 AU
conjunction	-3985 Jan 06 j 04:25	16°♂20'40	0°-37'-43	morning rise	-3979 Apr 21 j 12:31	13°♂56'12	
minimum elong	-3985 Jan 06 j 04:24	16°♂20'40	0°37'53	retrograde	-3979 Aug 06 j 05:20	22°♂31'32	
max. Earth dist.	-3985 Jan 05 j 19:26	16°♂17'50	10.38323 AU	opposition	-3979 Oct 11 j 20:12	19°♂00'34	-2°-50'-7
morning rise	-3985 Jan 23 j 12:16	18°♂31'19		min. Earth dist.	-3979 Oct 11 j 08:18	19°♂03'04	7.87099 AU
retrograde	-3985 May 10 j 04:21	26°♂32'55		direct	-3979 Dec 16 j 21:57	15°♂31'00	
opposition	-3985 Jul 18 j 21:21	23°♂04'58	-1°-6'-35	evening set	-3978 Apr 01 j 02:34	23°♂57'52	
min. Earth dist.	-3985 Jul 19 j 03:05	23°♂03'51	8.30751 AU				
direct	-3985 Sep 24 j 03:34	19°♂42'06		conjunction	-3978 Apr 19 j 05:37	26°♂21'05	-2°-8'-59
evening set	-3984 Jan 02 j 12:03	27°♂23'50		minimum elong	-3978 Apr 19 j 05:41	26°♂21'06	2°09'01
				max. Earth dist.	-3978 Apr 19 j 22:35	26°♂26'43	9.89000 AU
conjunction	-3984 Jan 19 j 18:56	29°♂36'09	-1°-8'-22	morning rise	-3978 May 07 j 09:11	28°♂44'25	
minimum elong	-3984 Jan 19 j 18:54	29°♂36'08	1°08'33		-3978 May 17 j 05:36	0°♀	
max. Earth dist.	-3984 Jan 19 j 13:06	29°♂34'16	10.23568 AU	retrograde	-3978 Aug 21 j 01:08	7°♀12'09	
	-3984 Jan 22 j 21:13	0°♂		opposition	-3978 Oct 26 j 10:40	3°♀42'09	-2°-30'-35
morning rise	-3984 Feb 06 j 06:59	1°♂50'10		min. Earth dist.	-3978 Oct 25 j 21:25	3°♀44'55	7.92135 AU
retrograde	-3984 May 23 j 16:50	10°♂04'04		direct	-3978 Dec 31 j 21:59	0°♀12'10	
opposition	-3984 Jul 31 j 20:01	6°♂34'40	-1°-43'-26	evening set	-3977 Apr 16 j 17:04	8°♀36'40	
min. Earth dist.	-3984 Jul 31 j 22:31	6°♂34'10	8.16645 AU				
direct	-3984 Oct 06 j 12:05	3°♂10'29		conjunction	-3977 May 04 j 21:17	10°♀58'59	-1°-49'-36
evening set	-3983 Jan 15 j 12:44	11°♂03'32		minimum elong	-3977 May 04 j 21:21	10°♀59'00	1°49'36
				max. Earth dist.	-3977 May 05 j 15:14	11°♀04'53	9.95803 AU
conjunction	-3983 Feb 01 j 23:31	13°♂19'01	-1°-36'-6	morning rise	-3977 May 23 j 00:30	13°♀20'56	
minimum elong	-3983 Feb 01 j 23:28	13°♂19'00	1°36'17	retrograde	-3977 Sep 04 j 12:36	21°♀38'07	
max. Earth dist.	-3983 Feb 01 j 21:11	13°♂18'15	10.10209 AU	opposition	-3977 Nov 09 j 19:45	18°♀09'28	-2°-1'-45
morning rise	-3983 Feb 19 j 15:34	15°♂36'12		min. Earth dist.	-3977 Nov 09 j 06:24	18°♀12'14	8.00420 AU
retrograde	-3983 Jun 07 j 14:15	24°♂00'59		direct	-3976 Jan 15 j 20:02	14°♀39'28	
opposition	-3983 Aug 15 j 02:15	20°♂30'27	-2°-15'-30	evening set	-3976 May 01 j 00:48	22°♀58'49	
min. Earth dist.	-3983 Aug 15 j 01:43	20°♂30'33	8.04376 AU				
direct	-3983 Oct 20 j 06:36	17°♂04'55		conjunction	-3976 May 19 j 04:54	25°♀19'24	-1°-23'-42
evening set	-3982 Jan 30 j 02:58	25°♂09'01		minimum elong	-3976 May 19 j 04:58	25°♀19'25	1°23'39
				max. Earth dist.	-3976 May 19 j 22:24	25°♀25'05	10.05575 AU
conjunction	-3982 Feb 16 j 17:36	27°♂27'19	-1°-58'-52	morning rise	-3976 Jun 06 j 06:40	27°♀39'12	
minimum elong	-3982 Feb 16 j 17:33	27°♂27'18	1°59'03		-3976 Jun 25 j 09:07	0°♂	
max. Earth dist.	-3982 Feb 16 j 19:14	27°♂27'51	9.99081 AU	retrograde	-3976 Sep 17 j 13:30	5°♂44'05	
morning rise	-3982 Mar 06 j 13:17	29°♂47'15		opposition	-3976 Nov 22 j 22:00	2°♂17'06	-1°-26'-8
	-3982 Mar 08 j 04:51	0°♂		min. Earth dist.	-3976 Nov 22 j 09:39	2°♂19'39	8.11374 AU
retrograde	-3982 Jun 22 j 17:01	8°♂20'28			-3976 Dec 23 j 07:38	30°♀	
opposition	-3982 Aug 29 j 14:49	4°♂49'10	-2°-40'-9	direct	-3975 Jan 29 j 13:46	28°♀47'26	
min. Earth dist.	-3982 Aug 29 j 11:21	4°♂49'53	7.94732 AU		-3975 Mar 07 j 17:02	0°♂	
direct	-3982 Nov 03 j 12:16	1°♂22'21		evening set	-3975 May 15 j 23:32	6°♂59'29	
evening set	-3981 Feb 14 j 05:07	9°♂36'14					
				conjunction	-3975 Jun 03 j 02:00	9°♂17'36	0°-53'-22
conjunction	-3981 Mar 03 j 23:25	11°♂56'53	-2°-14'-43	minimum elong	-3975 Jun 03 j 02:03	9°♂17'37	0°53'17
minimum elong	-3981 Mar 03 j 23:23	11°♂56'52	2°14'52	max. Earth dist.	-3975 Jun 03 j 17:45	9°♂22'38	10.17715 AU
max. Earth dist.	-3981 Mar 04 j 05:32	11°♂58'55	9.90938 AU	morning rise	-3975 Jun 21 j 01:03	11°♂34'36	
morning rise	-3981 Mar 21 j 22:06	14°♂18'56			-3975 Jul 20 j 01:10	15°♂	
	-3981 Mar 27 j 05:16	15°♂		retrograde	-3975 Oct 01 j 02:52	19°♂26'23	
retrograde	-3981 Jul 07 j 22:27	22°♂57'07		opposition	-3975 Dec 06 j 16:24	16°♂01'13	0°-46'-34
opposition	-3981 Sep 13 j 07:37	19°♂25'29	-2°-55'-1	min. Earth dist.	-3975 Dec 06 j 05:22	16°♂03'27	8.24399 AU
min. Earth dist.	-3981 Sep 13 j 01:08	19°♂26'50	7.88381 AU		-3975 Dec 19 j 10:38	15°♂	
direct	-3981 Nov 18 j 02:25	15°♂57'33		direct	-3974 Feb 13 j 01:13	12°♂32'11	
evening set	-3980 Feb 29 j 16:20	24°♂18'57			-3974 Apr 08 j 14:33	15°♂	
				evening set	-3974 May 30 j 11:07	20°♂35'21	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 36

Attention, astronomical year style is used: The year -3974 in astronomical counting style is the year 3975 BCE in historical counting style.

conjunction	-3974 Jun 17 j 10:34	22°♄50'26	0°-20'-50			-3968 Jul 09 j 12:14	0°♄	
minimum elong	-3974 Jun 17 j 10:35	22°♄50'27	0°20'44	evening set		-3968 Aug 13 j 00:34	3°♄38'12	
max. Earth dist.	-3974 Jun 17 j 23:55	22°♄54'38	10.31563 AU					
morning rise	-3974 Jul 05 j 05:48	25°♄04'09		conjunction		-3968 Aug 29 j 18:41	5°♄34'48	2°10'34
	-3974 Aug 19 j 02:53	0°♄		minimum elong		-3968 Aug 29 j 18:38	5°♄34'47	2°10'42
retrograde	-3974 Oct 14 j 05:54	2°♄42'57		max. Earth dist.		-3968 Aug 29 j 14:51	5°♄33'41	11.10138 AU
	-3974 Dec 11 j 15:11	30°♄		morning rise		-3968 Sep 15 j 08:45	7°♄30'14	
opposition	-3974 Dec 20 j 02:38	29°♄19'36	0°-5'-47	retrograde		-3968 Dec 22 j 21:55	14°♄19'35	
min. Earth dist.	-3974 Dec 19 j 16:53	29°♄21'33	8.38793 AU	opposition		-3967 Mar 02 j 10:51	11°♄03'31	2°45'47
asc. node	-3973 Feb 12 j 07:16	26°♄02'57		min. Earth dist.		-3967 Mar 02 j 14:22	11°♄02'52	9.14162 AU
direct	-3973 Feb 27 j 04:16	25°♄51'27		direct		-3967 May 13 j 06:06	7°♄42'27	
	-3973 May 11 j 08:08	0°♄		evening set		-3967 Aug 24 j 09:54	14°♄45'54	
evening set	-3973 Jun 13 j 10:13	3°♄44'47				-3967 Aug 26 j 11:24	15°♄	
conjunction	-3973 Jul 01 j 05:36	5°♄56'32	0°11'55	conjunction		-3967 Sep 10 j 00:21	16°♄40'45	2°20'19
minimum elong	-3973 Jul 01 j 05:35	5°♄56'31	0°12'03	minimum elong		-3967 Sep 10 j 00:19	16°♄40'45	2°20'26
behind sun begin	-3973 Jul 01 j 00:43	5°♄55'02		max. Earth dist.		-3967 Sep 09 j 18:38	16°♄39'06	11.17214 AU
behind sun end	-3973 Jul 01 j 10:27	5°♄58'01		morning rise		-3967 Sep 26 j 11:12	18°♄34'39	
max. Earth dist.	-3973 Jul 01 j 16:24	5°♄59'52	10.46366 AU	retrograde		-3966 Jan 03 j 05:58	25°♄21'54	
morning rise	-3973 Jul 18 j 20:10	8°♄06'43		opposition		-3966 Mar 14 j 04:45	22°♄06'08	2°54'19
retrograde	-3973 Oct 26 j 22:21	15°♄33'22		min. Earth dist.		-3966 Mar 14 j 10:38	22°♄05'03	9.19979 AU
opposition	-3972 Jan 02 j 04:31	12°♄11'43	0°33'51	direct		-3966 May 25 j 01:15	18°♄46'05	
min. Earth dist.	-3972 Jan 01 j 19:59	12°♄13'24	8.53778 AU	evening set		-3966 Sep 04 j 14:00	25°♄45'04	
direct	-3972 Mar 11 j 22:49	8°♄44'39						
evening set	-3972 Jun 25 j 20:58	16°♄27'57		conjunction		-3966 Sep 21 j 01:32	27°♄38'44	2°24'47
conjunction	-3972 Jul 13 j 11:32	18°♄36'12	0°43'03	minimum elong		-3966 Sep 21 j 01:32	27°♄38'44	2°24'53
minimum elong	-3972 Jul 13 j 11:30	18°♄36'11	0°43'13	max. Earth dist.		-3966 Sep 20 j 17:03	27°♄36'16	11.21656 AU
max. Earth dist.	-3972 Jul 13 j 20:01	18°♄38'47	10.61346 AU	morning rise		-3966 Oct 07 j 10:23	29°♄31'39	
morning rise	-3972 Jul 30 j 20:48	20°♄42'50				-3966 Oct 11 j 15:04	0°♄	
retrograde	-3972 Nov 07 j 06:02	27°♄58'36		retrograde		-3965 Jan 14 j 13:48	6°♄18'32	
opposition	-3971 Jan 13 j 22:29	24°♄38'32	1°10'30	opposition		-3965 Mar 25 j 21:20	3°♄02'49	2°56'28
min. Earth dist.	-3971 Jan 13 j 15:59	24°♄39'48	8.68599 AU	min. Earth dist.		-3965 Mar 26 j 06:04	3°♄01'13	9.23068 AU
direct	-3971 Mar 25 j 07:47	21°♄12'39				-3965 May 17 j 22:46	30°♄	
evening set	-3971 Jul 08 j 19:38	28°♄46'13		direct		-3965 Jun 05 j 16:02	29°♄43'37	
	-3971 Jul 19 j 03:19	0°♄				-3965 Jun 24 j 06:41	0°♄	
conjunction	-3971 Jul 26 j 04:53	0°♄51'03	1°11'19	evening set		-3965 Sep 15 j 14:26	6°♄39'30	
minimum elong	-3971 Jul 26 j 04:50	0°♄51'02	1°11'30	conjunction		-3965 Oct 02 j 00:03	8°♄32'33	2°23'57
max. Earth dist.	-3971 Jul 26 j 10:58	0°♄52'53	10.75781 AU	minimum elong		-3965 Oct 02 j 00:04	8°♄32'33	2°24'02
morning rise	-3971 Aug 12 j 08:40	2°♄54'17		max. Earth dist.		-3965 Oct 01 j 12:43	8°♄29'16	11.23330 AU
retrograde	-3971 Nov 19 j 07:29	10°♄00'46		morning rise		-3965 Oct 18 j 08:00	10°♄25'10	
opposition	-3970 Jan 26 j 09:39	6°♄42'06	1°42'46	retrograde		-3964 Jan 25 j 21:39	17°♄13'22	
min. Earth dist.	-3970 Jan 26 j 06:02	6°♄42'48	8.82577 AU	opposition		-3964 Apr 05 j 13:56	13°♄57'22	2°52'16
direct	-3970 Apr 07 j 06:07	3°♄17'28		min. Earth dist.		-3964 Apr 06 j 00:18	13°♄55'29	9.23316 AU
evening set	-3970 Jul 21 j 06:51	10°♄41'54		direct		-3964 Jun 16 j 04:39	10°♄38'51	
conjunction	-3970 Aug 07 j 10:38	12°♄43'35	1°35'44	evening set		-3964 Sep 25 j 12:55	17°♄33'03	
minimum elong	-3970 Aug 07 j 10:34	12°♄43'34	1°35'55	conjunction		-3964 Oct 11 j 21:45	19°♄26'05	2°17'54
max. Earth dist.	-3970 Aug 07 j 13:18	12°♄44'23	10.89051 AU	minimum elong		-3964 Oct 11 j 21:47	19°♄26'06	2°17'57
morning rise	-3970 Aug 24 j 09:15	14°♄43'46		max. Earth dist.		-3964 Oct 11 j 09:22	19°♄22'30	11.22167 AU
retrograde	-3970 Nov 30 j 23:32	21°♄42'43		morning rise		-3964 Oct 28 j 05:39	21°♄18'55	
opposition	-3969 Feb 07 j 14:44	18°♄25'12	2°09'46	retrograde		-3963 Feb 05 j 11:17	28°♄10'12	
min. Earth dist.	-3969 Feb 07 j 14:11	18°♄25'19	8.95135 AU	opposition		-3963 Apr 17 j 07:53	24°♄53'38	2°41'52
direct	-3969 Apr 19 j 21:10	15°♄01'47		min. Earth dist.		-3963 Apr 17 j 18:56	24°♄51'37	9.20709 AU
evening set	-3969 Aug 02 j 08:03	22°♄18'06		direct		-3963 Jun 27 j 17:25	21°♄35'36	
conjunction	-3969 Aug 19 j 06:38	24°♄16'59	1°55'37	evening set		-3963 Oct 06 j 11:30	28°♄29'31	
minimum elong	-3969 Aug 19 j 06:35	24°♄16'58	1°55'47			-3963 Oct 19 j 13:07	0°♄	
max. Earth dist.	-3969 Aug 19 j 05:26	24°♄16'38	11.00642 AU	conjunction		-3963 Oct 22 j 20:32	0°♄23'08	2°06'47
morning rise	-3969 Sep 05 j 00:43	26°♄14'33		minimum elong		-3963 Oct 22 j 20:34	0°♄23'08	2°06'48
	-3969 Oct 10 j 15:10	0°♄		max. Earth dist.		-3963 Oct 22 j 07:28	0°♄19'19	11.18199 AU
retrograde	-3969 Dec 12 j 11:45	3°♄07'48		morning rise		-3963 Nov 08 j 05:22	2°♄16'48	
	-3968 Feb 17 j 15:01	30°♄		retrograde		-3962 Feb 17 j 04:03	9°♄12'44	
opposition	-3968 Feb 19 j 14:35	29°♄51'08	2°30'52	opposition		-3962 Apr 29 j 04:28	5°♄55'20	2°25'27
min. Earth dist.	-3968 Feb 19 j 16:16	29°♄50'49	9.05791 AU	min. Earth dist.		-3962 Apr 29 j 16:27	5°♄53'08	9.15334 AU
direct	-3968 May 01 j 05:50	26°♄28'54		direct		-3962 Jul 09 j 03:45	2°♄37'33	
				evening set		-3962 Oct 17 j 11:59	9°♄32'41	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), AstroDienst AG 7-Dez-2017 14:36, page 37

Attention, astronomical year style is used: The year -3962 in astronomical counting style is the year 3963 BCE in historical counting style.

conjunction	-3962 Nov 02 j 21:57	11°♄27'25	1°50'50	conjunction	-3955 Jan 12 j 22:02	23°♄44'09	0°-54'-40
minimum elong	-3962 Nov 02 j 22:00	11°♄27'25	1°50'48	minimum elong	-3955 Jan 12 j 22:00	23°♄44'08	0°54'51
max. Earth dist.	-3962 Nov 02 j 07:15	11°♄23'06	11.11555 AU	max. Earth dist.	-3955 Jan 12 j 13:06	23°♄41'18	10.32841 AU
morning rise	-3962 Nov 19 j 08:52	13°♄22'29		morning rise	-3955 Jan 30 j 08:05	25°♄56'15	
retrograde	-3961 Mar 01 j 02:41	20°♄24'41			-3955 Mar 06 j 13:13	0°♄	
opposition	-3961 May 11 j 04:46	17°♄06'12	2°03'21	retrograde	-3955 May 17 j 09:15	4°♄03'09	
min. Earth dist.	-3961 May 11 j 17:56	17°♄03'47	9.07359 AU	opposition	-3955 Jul 25 j 19:36	0°♄34'59	-1°-27'00
direct	-3961 Jul 20 j 17:15	13°♄48'23		min. Earth dist.	-3955 Jul 26 j 01:19	0°♄33'51	8.25386 AU
evening set	-3961 Oct 28 j 16:19	20°♄46'19			-3955 Aug 02 j 04:22	30°♄♂	
				direct	-3955 Sep 30 j 18:44	27°♄11'53	
conjunction	-3961 Nov 14 j 04:03	22°♄42'40	1°30'24		-3955 Nov 26 j 07:15	0°♄	
minimum elong	-3961 Nov 14 j 04:06	22°♄42'41	1°30'19	evening set	-3954 Jan 09 j 10:29	4°♄58'24	
max. Earth dist.	-3961 Nov 13 j 12:39	22°♄38'07	11.02434 AU				
morning rise	-3961 Nov 30 j 17:48	24°♄39'40		conjunction	-3954 Jan 26 j 19:21	7°♄12'05	-1°-23'-54
	-3960 Jan 23 j 23:00	0°♄		minimum elong	-3954 Jan 26 j 19:18	7°♄12'04	1°24'05
retrograde	-3960 Mar 12 j 07:17	1°♄49'42		max. Earth dist.	-3954 Jan 26 j 14:25	7°♄10'29	10.18370 AU
	-3960 May 01 j 08:27	30°♄♂		morning rise	-3954 Feb 13 j 09:25	9°♄27'29	
opposition	-3960 May 22 j 09:49	28°♄29'53	1°36'00	retrograde	-3954 Jun 01 j 01:13	17°♄46'06	
min. Earth dist.	-3960 May 22 j 23:11	28°♄27'25	8.97040 AU	opposition	-3954 Aug 08 j 21:20	14°♄16'27	-2°-1'-29
direct	-3960 Jul 31 j 09:50	25°♄11'47		min. Earth dist.	-3954 Aug 08 j 23:33	14°♄16'00	8.11752 AU
	-3960 Oct 19 j 06:03	0°♄		direct	-3954 Oct 14 j 08:18	10°♄51'51	
evening set	-3960 Nov 08 j 02:18	2°♄14'04		evening set	-3953 Jan 23 j 17:29	18°♄49'42	
conjunction	-3960 Nov 24 j 16:42	4°♄12'32	1°05'58	conjunction	-3953 Feb 10 j 06:18	21°♄06'26	-1°-49'-9
minimum elong	-3960 Nov 24 j 16:44	4°♄12'33	1°05'52	minimum elong	-3953 Feb 10 j 06:15	21°♄06'25	1°49'20
max. Earth dist.	-3960 Nov 24 j 02:19	4°♄08'14	10.91128 AU	max. Earth dist.	-3953 Feb 10 j 05:42	21°♄06'14	10.05642 AU
morning rise	-3960 Dec 11 j 09:46	6°♄11'55		morning rise	-3953 Feb 28 j 00:01	23°♄24'48	
retrograde	-3959 Mar 24 j 21:23	13°♄31'18			-3953 Apr 30 j 03:18	0°♄	
opposition	-3959 Jun 03 j 20:48	10°♄09'55	1°04'02	retrograde	-3953 Jun 16 j 00:19	1°♄53'16	
min. Earth dist.	-3959 Jun 04 j 08:58	10°♄07'38	8.84717 AU		-3953 Aug 02 j 14:26	30°♄♂	
direct	-3959 Aug 12 j 07:46	6°♄51'17		opposition	-3953 Aug 23 j 06:07	28°♄22'27	-2°-29'-49
evening set	-3959 Nov 19 j 19:55	13°♄59'28		min. Earth dist.	-3953 Aug 23 j 04:38	28°♄22'45	8.00295 AU
	-3959 Nov 28 j 05:54	15°♄		direct	-3953 Oct 28 j 08:11	24°♄56'22	
					-3952 Jan 13 j 14:15	0°♄	
conjunction	-3959 Dec 06 j 13:29	16°♄00'30	0°38'13	evening set	-3952 Feb 07 j 13:03	3°♄04'46	
minimum elong	-3959 Dec 06 j 13:30	16°♄00'31	0°38'06				
max. Earth dist.	-3959 Dec 05 j 23:59	15°♄56'24	10.77999 AU	conjunction	-3952 Feb 25 j 05:38	5°♄24'08	-2°-8'-23
morning rise	-3959 Dec 23 j 10:26	18°♄02'41		minimum elong	-3952 Feb 25 j 05:35	5°♄24'07	2°08'33
retrograde	-3958 Apr 06 j 22:19	25°♄32'42		max. Earth dist.	-3952 Feb 25 j 09:24	5°♄25'23	9.95485 AU
opposition	-3958 Jun 16 j 14:36	22°♄09'38	0°28'20	morning rise	-3952 Mar 14 j 02:38	7°♄44'59	
min. Earth dist.	-3958 Jun 17 j 01:31	22°♄07'34	8.70795 AU		-3952 May 22 j 07:25	15°♄	
direct	-3958 Aug 24 j 10:06	18°♄50'12		retrograde	-3952 Jun 30 j 04:03	16°♄20'23	
evening set	-3958 Dec 01 j 23:18	26°♄05'56			-3952 Aug 08 j 07:37	15°♄♂	
				opposition	-3952 Sep 05 j 20:15	12°♄48'48	-2°-49'-29
conjunction	-3958 Dec 18 j 20:18	28°♄09'51	0°08'04	min. Earth dist.	-3952 Sep 05 j 15:22	12°♄49'49	7.91766 AU
minimum elong	-3958 Dec 18 j 20:18	28°♄09'52	0°07'56	direct	-3952 Nov 10 j 16:39	9°♄21'18	
behind sun begin	-3958 Dec 18 j 13:58	28°♄07'56			-3951 Jan 31 j 18:09	15°♄	
behind sun end	-3958 Dec 19 j 02:39	28°♄11'48		evening set	-3951 Feb 21 j 19:22	17°♄38'34	
max. Earth dist.	-3958 Dec 18 j 07:08	28°♄05'49	10.63487 AU				
	-3957 Jan 02 j 19:26	0°♄♂		conjunction	-3951 Mar 11 j 15:29	20°♄00'02	-2°-19'-52
morning rise	-3957 Jan 04 j 21:34	0°♄15'10		minimum elong	-3951 Mar 11 j 15:28	20°♄00'02	2°20'00
desc. node	-3957 Mar 25 j 19:26	7°♄24'40		max. Earth dist.	-3951 Mar 11 j 23:06	20°♄02'35	9.88593 AU
retrograde	-3957 Apr 20 j 07:28	7°♄56'56		morning rise	-3951 Mar 29 j 15:19	22°♄22'43	
opposition	-3957 Jun 29 j 15:53	4°♄32'09	0°-9'-51		-3951 Jun 11 j 21:33	0°♄♂	
min. Earth dist.	-3957 Jun 30 j 01:47	4°♄30'14	8.55774 AU	retrograde	-3951 Jul 15 j 09:36	1°♄01'12	
direct	-3957 Sep 05 j 19:06	1°♄11'39			-3951 Aug 18 j 00:37	30°♄♂	
evening set	-3957 Dec 14 j 13:57	8°♄36'35		opposition	-3951 Sep 20 j 13:27	27°♄29'18	-2°-58'-29
				min. Earth dist.	-3951 Sep 20 j 06:01	27°♄30'52	7.86743 AU
conjunction	-3957 Dec 31 j 14:42	10°♄43'40	0°-23'-26	direct	-3951 Nov 25 j 08:23	24°♄00'34	
minimum elong	-3957 Dec 31 j 14:41	10°♄43'40	0°23'36		-3950 Feb 18 j 09:07	0°♄♂	
max. Earth dist.	-3957 Dec 31 j 02:41	10°♄39'55	10.48173 AU	evening set	-3950 Mar 09 j 09:03	2°♄24'09	
morning rise	-3956 Jan 17 j 20:25	12°♄52'20					
retrograde	-3956 May 03 j 02:57	20°♄46'38		conjunction	-3950 Mar 27 j 08:23	4°♄47'00	-2°-22'-22
opposition	-3956 Jul 12 j 01:35	17°♄20'08	0°-48'-59	minimum elong	-3950 Mar 27 j 08:24	4°♄47'00	2°22'28
min. Earth dist.	-3956 Jul 12 j 09:57	17°♄18'30	8.40353 AU	max. Earth dist.	-3950 Mar 27 j 19:20	4°♄50'39	9.85444 AU
direct	-3956 Sep 17 j 14:28	13°♄58'25		morning rise	-3950 Apr 14 j 10:25	7°♄10'40	
evening set	-3956 Dec 26 j 17:16	21°♄33'45		retrograde	-3950 Jul 30 j 13:29	15°♄47'57	

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 38

Attention, astronomical year style is used: The year -3950 in astronomical counting style is the year 3951 BCE in historical counting style.

opposition	-3950 Oct 05 j 07:27	12° <del>✕</del> 16'17	-2°-55'-43	asc. node	-3944 Aug 05 j 03:43	5° <del>II</del> 04'50	
min. Earth dist.	-3950 Oct 04 j 22:02	12° <del>✕</del> 18'15	7.85565 AU	retrograde	-3944 Oct 20 j 09:54	9° <del>II</del> 47'25	
direct	-3950 Dec 10 j 05:29	8° <del>✕</del> 46'33		opposition	-3944 Dec 26 j 10:54	6° <del>II</del> 24'37	0°15'14
evening set	-3949 Mar 25 j 01:54	17° <del>✕</del> 13'12		min. Earth dist.	-3944 Dec 26 j 01:17	6° <del>II</del> 26'32	8.45816 AU
				direct	-3943 Mar 05 j 20:34	2° <del>II</del> 56'44	
conjunction	-3949 Apr 12 j 03:51	19° <del>✕</del> 36'34	-2°-15'-30	evening set	-3943 Jun 19 j 23:24	10° <del>II</del> 45'01	
minimum elong	-3949 Apr 12 j 03:53	19° <del>✕</del> 36'35	2°15'34				
max. Earth dist.	-3949 Apr 12 j 17:37	19° <del>✕</del> 41'09	9.86250 AU	conjunction	-3943 Jul 07 j 16:23	12° <del>II</del> 55'00	0°28'30
morning rise	-3949 Apr 30 j 07:15	22° <del>✕</del> 00'19		minimum elong	-3943 Jul 07 j 16:22	12° <del>II</del> 55'00	0°28'40
	-3949 Jul 21 j 13:56	0° <del>Y</del>		max. Earth dist.	-3943 Jul 08 j 03:15	12° <del>II</del> 58'21	10.53597 AU
retrograde	-3949 Aug 14 j 12:29	0° <del>Y</del> 32'14		morning rise	-3943 Jul 25 j 04:14	15° <del>II</del> 03'25	
	-3949 Sep 07 j 10:21	30° <del>R</del>		retrograde	-3943 Nov 01 j 21:10	22° <del>II</del> 24'21	
opposition	-3949 Oct 19 j 23:32	27° <del>✕</del> 01'15	-2°-41'-20	opposition	-3942 Jan 08 j 08:44	19° <del>II</del> 03'25	0°53'32
min. Earth dist.	-3949 Oct 19 j 12:29	27° <del>✕</del> 03'34	7.88300 AU	min. Earth dist.	-3942 Jan 08 j 01:23	19° <del>II</del> 04'51	8.61130 AU
direct	-3949 Dec 25 j 06:02	23° <del>✕</del> 30'53		direct	-3942 Mar 19 j 10:26	15° <del>II</del> 36'51	
	-3948 Mar 24 j 06:52	0° <del>Y</del>		evening set	-3942 Jul 03 j 03:58	23° <del>II</del> 15'13	
evening set	-3948 Apr 08 j 17:57	1° <del>Y</del> 57'08					
				conjunction	-3942 Jul 20 j 15:41	25° <del>II</del> 21'41	0°58'19
conjunction	-3948 Apr 26 j 21:41	4° <del>Y</del> 20'07	-1°-59'-51	minimum elong	-3942 Jul 20 j 15:38	25° <del>II</del> 21'41	0°58'29
minimum elong	-3948 Apr 26 j 21:45	4° <del>Y</del> 20'08	1°59'53	max. Earth dist.	-3942 Jul 20 j 22:58	25° <del>II</del> 23'54	10.68711 AU
max. Earth dist.	-3948 Apr 27 j 13:22	4° <del>Y</del> 25'17	9.90936 AU	morning rise	-3942 Aug 06 j 22:15	27° <del>II</del> 26'35	
morning rise	-3948 May 15 j 01:28	6° <del>Y</del> 43'00			-3942 Aug 29 j 10:52	0° <del>☿</del>	
retrograde	-3948 Aug 28 j 03:05	15° <del>Y</del> 05'56		retrograde	-3942 Nov 14 j 01:13	4° <del>☿</del> 37'29	
opposition	-3948 Nov 02 j 11:16	11° <del>Y</del> 36'04	-2°-16'-39	opposition	-3941 Jan 20 j 23:15	1° <del>☿</del> 18'13	1°28'03
min. Earth dist.	-3948 Nov 01 j 23:03	11° <del>Y</del> 38'38	7.94736 AU	min. Earth dist.	-3941 Jan 20 j 17:41	1° <del>☿</del> 19'17	8.75937 AU
direct	-3947 Jan 08 j 06:20	8° <del>Y</del> 05'28			-3941 Feb 07 j 08:31	30° <del>R</del> <del>II</del>	
evening set	-3947 Apr 24 j 05:17	16° <del>Y</del> 28'03		direct	-3941 Apr 01 j 14:31	27° <del>II</del> 53'04	
					-3941 May 23 j 16:15	0° <del>☿</del>	
conjunction	-3947 May 12 j 09:38	18° <del>Y</del> 49'43	-1°-36'-47	evening set	-3941 Jul 15 j 20:43	5° <del>☿</del> 21'58	
minimum elong	-3947 May 12 j 09:42	18° <del>Y</del> 49'45	1°36'46				
max. Earth dist.	-3947 May 13 j 02:12	18° <del>Y</del> 55'08	9.99138 AU	conjunction	-3941 Aug 02 j 03:07	7° <del>☿</del> 25'09	1°24'41
morning rise	-3947 May 30 j 12:33	21° <del>Y</del> 10'51		minimum elong	-3941 Aug 02 j 03:04	7° <del>☿</del> 25'08	1°24'51
retrograde	-3947 Sep 11 j 07:45	29° <del>Y</del> 22'15		max. Earth dist.	-3941 Aug 02 j 07:41	7° <del>☿</del> 26'31	10.82956 AU
opposition	-3947 Nov 16 j 16:53	25° <del>Y</del> 53'52	-1°-43'-53	morning rise	-3941 Aug 19 j 04:21	9° <del>☿</del> 26'48	
min. Earth dist.	-3947 Nov 16 j 03:51	25° <del>Y</del> 56'34	8.04402 AU	retrograde	-3941 Nov 25 j 22:10	16° <del>☿</del> 29'19	
direct	-3946 Jan 23 j 02:46	22° <del>Y</del> 23'25		opposition	-3940 Feb 02 j 07:17	13° <del>☿</del> 11'28	1°57'40
	-3946 May 04 j 02:14	0° <del>♄</del>		min. Earth dist.	-3940 Feb 02 j 03:50	13° <del>☿</del> 12'07	8.89570 AU
evening set	-3946 May 09 j 08:32	0° <del>♄</del> 39'36		direct	-3940 Apr 13 j 09:33	9° <del>☿</del> 47'45	
				evening set	-3940 Jul 27 j 03:04	17° <del>☿</del> 08'01	
conjunction	-3946 May 27 j 12:04	2° <del>♄</del> 59'08	-1°-8'-16				
minimum elong	-3946 May 27 j 12:07	2° <del>♄</del> 59'09	1°08'13	conjunction	-3940 Aug 13 j 04:14	19° <del>☿</del> 08'12	1°46'47
max. Earth dist.	-3946 May 28 j 04:52	3° <del>♄</del> 04'33	10.10263 AU	minimum elong	-3940 Aug 13 j 04:11	19° <del>☿</del> 08'11	1°46'57
morning rise	-3946 Jun 14 j 12:43	5° <del>♄</del> 17'43		max. Earth dist.	-3940 Aug 13 j 06:15	19° <del>☿</del> 08'48	10.95723 AU
retrograde	-3946 Sep 25 j 02:34	13° <del>♄</del> 16'13		morning rise	-3940 Aug 30 j 00:21	21° <del>☿</del> 06'58	
opposition	-3946 Nov 30 j 15:05	9° <del>♄</del> 49'34	-1°-5'-48	retrograde	-3940 Dec 06 j 14:23	28° <del>☿</del> 02'53	
min. Earth dist.	-3946 Nov 30 j 02:06	9° <del>♄</del> 52'14	8.16649 AU	opposition	-3939 Feb 13 j 09:56	24° <del>☿</del> 46'12	2°21'37
direct	-3945 Feb 06 j 16:45	6° <del>♄</del> 19'41		min. Earth dist.	-3939 Feb 13 j 09:29	24° <del>☿</del> 46'17	9.01472 AU
evening set	-3945 May 24 j 01:24	14° <del>♄</del> 27'29		direct	-3939 Apr 25 j 20:33	21° <del>☿</del> 23'50	
	-3945 May 28 j 09:28	15° <del>♄</del>		evening set	-3939 Aug 08 j 00:09	28° <del>☿</del> 36'29	
conjunction	-3945 Jun 11 j 02:41	16° <del>♄</del> 44'13	0°-36'-30		-3939 Aug 19 j 23:58	0° <del>♁</del>	
minimum elong	-3945 Jun 11 j 02:43	16° <del>♄</del> 44'14	0°36'25	conjunction	-3939 Aug 24 j 20:24	0° <del>♁</del> 34'07	2°04'07
max. Earth dist.	-3945 Jun 11 j 18:46	16° <del>♄</del> 49'19	10.23587 AU	minimum elong	-3939 Aug 24 j 20:21	0° <del>♁</del> 34'06	2°04'15
morning rise	-3945 Jun 28 j 23:55	18° <del>♄</del> 59'40		max. Earth dist.	-3939 Aug 24 j 19:01	0° <del>♁</del> 33'42	11.06515 AU
retrograde	-3945 Oct 08 j 12:01	26° <del>♄</del> 44'55		morning rise	-3939 Sep 10 j 12:09	2° <del>♁</del> 30'29	
opposition	-3945 Dec 14 j 05:05	23° <del>♄</del> 20'10	0°-25'-15	retrograde	-3939 Dec 18 j 01:25	9° <del>♁</del> 21'35	
min. Earth dist.	-3945 Dec 13 j 17:20	23° <del>♄</del> 22'33	8.30725 AU	opposition	-3938 Feb 25 j 08:28	6° <del>♁</del> 05'43	2°39'28
direct	-3944 Feb 20 j 22:05	19° <del>♄</del> 51'09		min. Earth dist.	-3938 Feb 25 j 11:24	6° <del>♁</del> 05'10	9.11183 AU
evening set	-3944 Jun 06 j 06:31	27° <del>♄</del> 49'25		direct	-3938 May 07 j 23:48	2° <del>♁</del> 44'34	
	-3944 Jun 23 j 18:49	0° <del>II</del>		evening set	-3938 Aug 19 j 13:14	9° <del>♁</del> 50'46	
conjunction	-3944 Jun 24 j 04:14	0° <del>II</del> 02'55	0°-3'-41	conjunction	-3938 Sep 05 j 05:12	11° <del>♁</del> 46'21	2°16'19
minimum elong	-3944 Jun 24 j 04:13	0° <del>II</del> 02'55	0°03'34	minimum elong	-3938 Sep 05 j 05:11	11° <del>♁</del> 46'20	2°16'26
behind sun begin	-3944 Jun 23 j 21:01	0° <del>II</del> 00'41		max. Earth dist.	-3938 Sep 04 j 23:48	11° <del>♁</del> 44'47	11.14917 AU
behind sun end	-3944 Jun 24 j 11:25	0° <del>II</del> 05'08		morning rise	-3938 Sep 21 j 17:35	13° <del>♁</del> 40'55	
max. Earth dist.	-3944 Jun 24 j 18:14	0° <del>II</del> 07'17	10.38304 AU		-3938 Oct 03 j 13:02	15° <del>♁</del>	
morning rise	-3944 Jul 11 j 21:05	2° <del>II</del> 14'54		retrograde	-3938 Dec 29 j 09:28	20° <del>♁</del> 29'02	

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 39

Attention, astronomical year style is used: The year -3937 in astronomical counting style is the year 3938 BCE in historical counting style.

opposition	-3937 Mar 09 j 03:44	17°♈13'37	2°50'59	retrograde	-3931 Mar 07 j 03:23	26°♊51'00	
min. Earth dist.	-3937 Mar 09 j 09:18	17°♈12'36	9.18302 AU	opposition	-3931 May 17 j 05:10	23°♊31'28	1°49'10
	-3937 Apr 11 j 10:09	15°♈♈		min. Earth dist.	-3931 May 17 j 18:33	23°♊29'00	9.00627 AU
direct	-3937 May 19 j 23:16	13°♈53'32		direct	-3931 Jul 26 j 11:08	20°♊13'09	
	-3937 Jun 26 j 18:57	15°♈		evening set	-3931 Nov 03 j 06:47	27°♊13'45	
evening set	-3937 Aug 30 j 20:08	20°♈54'39					
conjunction	-3937 Sep 16 j 08:53	22°♈48'47	2°23'16	conjunction	-3931 Nov 19 j 19:57	29°♊11'22	1°17'37
minimum elong	-3937 Sep 16 j 08:52	22°♈48'46	2°23'21	minimum elong	-3931 Nov 19 j 20:00	29°♊11'23	1°17'32
max. Earth dist.	-3937 Sep 16 j 00:39	22°♈46'23	11.20584 AU	max. Earth dist.	-3931 Nov 19 j 04:01	29°♊06'37	10.94964 AU
morning rise	-3937 Oct 02 j 18:40	24°♈42'05			-3931 Nov 26 j 15:06	0°♈	
	-3937 Nov 27 j 16:45	0°♈		morning rise	-3931 Dec 06 j 11:27	1°♈09'45	
retrograde	-3936 Jan 09 j 18:14	1°♈29'04		retrograde	-3930 Mar 19 j 12:51	8°♈25'12	
	-3936 Feb 23 j 05:33	30°♈♈		opposition	-3930 May 29 j 13:31	5°♈04'04	1°19'13
opposition	-3936 Mar 19 j 20:59	28°♈13'47	2°56'07	min. Earth dist.	-3930 May 30 j 03:01	5°♈01'33	8.88831 AU
min. Earth dist.	-3936 Mar 20 j 04:30	28°♈12'25	9.22540 AU	direct	-3930 Aug 07 j 06:30	1°♈45'10	
direct	-3936 May 30 j 16:56	24°♈54'37		evening set	-3930 Nov 14 j 20:49	8°♈51'04	
	-3936 Aug 23 j 21:37	0°♈		conjunction	-3930 Dec 01 j 12:49	10°♈51'05	0°51'17
evening set	-3936 Sep 09 j 22:36	1°♈52'02		minimum elong	-3930 Dec 01 j 12:51	10°♈51'05	0°51'11
				max. Earth dist.	-3930 Nov 30 j 21:09	10°♈46'21	10.82330 AU
conjunction	-3936 Sep 26 j 09:08	3°♈45'20	2°24'53	morning rise	-3930 Dec 18 j 08:09	12°♈52'08	
minimum elong	-3936 Sep 26 j 09:08	3°♈45'20	2°24'58		-3929 Jan 05 j 23:38	15°♈	
max. Earth dist.	-3936 Sep 25 j 23:03	3°♈42'25	11.23321 AU	retrograde	-3929 Apr 01 j 07:55	20°♈17'42	
morning rise	-3936 Oct 12 j 17:16	5°♈38'01		opposition	-3929 Jun 11 j 04:15	16°♈54'52	0°45'05
retrograde	-3935 Jan 20 j 03:18	12°♈25'39		min. Earth dist.	-3929 Jun 11 j 17:06	16°♈52'26	8.75358 AU
opposition	-3935 Mar 31 j 14:03	9°♈10'11	2°54'51		-3929 Jul 08 j 03:25	15°♈♈	
min. Earth dist.	-3935 Mar 31 j 23:53	9°♈08'23	9.23799 AU	direct	-3929 Aug 19 j 07:06	13°♈35'11	
direct	-3935 Jun 11 j 06:29	5°♈51'42			-3929 Sep 29 j 03:24	15°♈	
evening set	-3935 Sep 20 j 22:21	12°♈46'50		evening set	-3929 Nov 26 j 19:26	20°♈47'59	
conjunction	-3935 Oct 07 j 07:29	14°♈39'51	2°21'14	conjunction	-3929 Dec 13 j 14:52	22°♈50'45	0°22'04
minimum elong	-3935 Oct 07 j 07:30	14°♈39'52	2°21'18	minimum elong	-3929 Dec 13 j 14:53	22°♈50'45	0°21'57
max. Earth dist.	-3935 Oct 06 j 18:44	14°♈36'10	11.23108 AU	max. Earth dist.	-3929 Dec 13 j 01:11	22°♈46'34	10.68244 AU
morning rise	-3935 Oct 23 j 15:13	16°♈32'33		morning rise	-3929 Dec 30 j 14:15	24°♈54'49	
retrograde	-3934 Jan 31 j 14:46	23°♈22'31			-3928 Feb 16 j 20:04	0°♈♈	
opposition	-3934 Apr 12 j 07:56	20°♈06'31	2°47'19	retrograde	-3928 Apr 13 j 12:13	2°♈31'46	
min. Earth dist.	-3934 Apr 12 j 20:06	20°♈04'18	9.22111 AU		-3928 Jun 11 j 11:11	30°♈♈	
direct	-3934 Jun 22 j 19:00	16°♈48'26		opposition	-3928 Jun 23 j 02:16	29°♈07'08	0°07'48
evening set	-3934 Oct 01 j 21:17	23°♈42'42		min. Earth dist.	-3928 Jun 23 j 13:01	29°♈05'05	8.60728 AU
				direct	-3928 Aug 30 j 13:56	25°♈46'31	
conjunction	-3934 Oct 18 j 06:01	25°♈36'03	2°12'26	desc. node	-3928 Sep 07 j 16:23	25°♈50'01	
minimum elong	-3934 Oct 18 j 06:03	25°♈36'04	2°12'28		-3928 Nov 10 j 22:08	0°♈♈	
max. Earth dist.	-3934 Oct 17 j 15:04	25°♈31'42	11.20010 AU	evening set	-3928 Dec 08 j 04:43	3°♈07'45	
morning rise	-3934 Nov 03 j 14:28	27°♈29'22					
	-3934 Nov 26 j 17:51	0°♈		conjunction	-3928 Dec 25 j 03:55	5°♈13'35	0°-9'-2
retrograde	-3933 Feb 12 j 03:53	4°♈23'17		minimum elong	-3928 Dec 25 j 03:54	5°♈13'35	0°09'12
opposition	-3933 Apr 24 j 03:27	1°♈06'23	2°33'40	behind sun begin	-3928 Dec 24 j 21:54	5°♈11'44	
min. Earth dist.	-3933 Apr 24 j 17:01	1°♈03'54	9.17567 AU	behind sun end	-3928 Dec 25 j 09:55	5°♈15'26	
	-3933 May 09 j 14:22	30°♈♈		max. Earth dist.	-3928 Dec 24 j 16:44	5°♈10'07	10.53281 AU
direct	-3933 Jul 04 j 07:09	27°♈48'27		morning rise	-3927 Jan 11 j 07:32	7°♈20'54	
	-3933 Aug 26 j 12:34	0°♈		retrograde	-3927 Apr 27 j 03:56	15°♈10'05	
evening set	-3933 Oct 12 j 21:01	4°♈43'20		opposition	-3927 Jul 06 j 08:14	11°♈43'41	0°-31'-9
				min. Earth dist.	-3927 Jul 06 j 16:16	11°♈42'07	8.45578 AU
conjunction	-3933 Oct 29 j 06:30	6°♈37'35	1°58'41	direct	-3927 Sep 12 j 05:00	8°♈21'58	
minimum elong	-3933 Oct 29 j 06:32	6°♈37'35	1°58'40	evening set	-3927 Dec 21 j 02:14	15°♈52'57	
max. Earth dist.	-3933 Oct 28 j 15:14	6°♈33'07	11.14141 AU				
morning rise	-3933 Nov 14 j 16:26	8°♈32'03		conjunction	-3926 Jan 07 j 05:18	18°♈02'02	0°-40'-34
retrograde	-3932 Feb 24 j 01:00	15°♈31'35		minimum elong	-3926 Jan 07 j 05:16	18°♈02'01	0°40'44
opposition	-3932 May 05 j 02:07	12°♈13'28	2°14'09	max. Earth dist.	-3926 Jan 06 j 20:24	17°♈59'13	10.38117 AU
min. Earth dist.	-3932 May 05 j 15:36	12°♈11'00	9.10321 AU	morning rise	-3926 Jan 24 j 13:19	20°♈12'45	
direct	-3932 Jul 14 j 21:28	8°♈55'28		retrograde	-3926 May 11 j 06:47	28°♈14'27	
evening set	-3932 Oct 22 j 23:26	15°♈52'24		opposition	-3926 Jul 19 j 22:33	24°♈46'25	-1°-9'-59
				min. Earth dist.	-3926 Jul 20 j 03:52	24°♈45'22	8.30623 AU
conjunction	-3932 Nov 08 j 10:27	17°♈48'06	1°40'16	direct	-3926 Sep 25 j 03:37	21°♈23'28	
minimum elong	-3932 Nov 08 j 10:29	17°♈48'07	1°40'13	evening set	-3925 Jan 03 j 13:12	29°♈05'14	
max. Earth dist.	-3932 Nov 07 j 19:08	17°♈43'35	11.05692 AU		-3925 Jan 10 j 18:05	0°♈♈	
morning rise	-3932 Nov 24 j 22:41	19°♈44'17					

## Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 40

Attention, astronomical year style is used: The year -3925 in astronomical counting style is the year 3926 BCE in historical counting style.

conjunction	-3925 Jan 20 j 20:07	1°☾17'33	-1°-10'-57	morning rise	-3919 May 08 j 09:02	0°♊20'53	
minimum elong	-3925 Jan 20 j 20:04	1°☾17'32	1°11'08	retrograde	-3919 Aug 22 j 00:41	8°♊47'57	
max. Earth dist.	-3925 Jan 20 j 13:49	1°☾15'32	10.23511 AU	opposition	-3919 Oct 27 j 09:06	5°♊18'02	-2°-28'-43
morning rise	-3925 Feb 07 j 08:23	3°☾31'37		min. Earth dist.	-3919 Oct 26 j 20:09	5°♊20'45	7.92709 AU
retrograde	-3925 May 25 j 18:57	11°☾45'25		direct	-3918 Jan 01 j 21:02	1°♊48'05	
opposition	-3925 Aug 02 j 20:58	8°☾15'58	-1°-46'-25	evening set	-3918 Apr 17 j 16:30	10°♊12'14	
min. Earth dist.	-3925 Aug 02 j 23:47	8°☾15'24	8.16664 AU				
direct	-3925 Oct 08 j 12:18	4°☾51'40		conjunction	-3918 May 05 j 20:41	12°♊34'25	-1°-47'-52
evening set	-3924 Jan 17 j 13:56	12°☾44'43		minimum elong	-3918 May 05 j 20:45	12°♊34'27	1°47'52
				max. Earth dist.	-3918 May 06 j 14:17	12°♊40'12	9.96435 AU
conjunction	-3924 Feb 04 j 00:46	15°☾00'09	-1°-38'-16	morning rise	-3918 May 23 j 23:56	14°♊56'16	
minimum elong	-3924 Feb 04 j 00:43	15°☾00'08	1°38'28	retrograde	-3918 Sep 05 j 10:24	23°♊12'42	
max. Earth dist.	-3924 Feb 03 j 22:12	14°☾59'19	10.10296 AU	opposition	-3918 Nov 10 j 17:49	19°♊44'10	-1°-59'-17
morning rise	-3924 Feb 21 j 16:58	17°☾17'19		min. Earth dist.	-3918 Nov 10 j 05:11	19°♊46'48	8.01097 AU
retrograde	-3924 Jun 08 j 14:36	25°☾41'52		direct	-3917 Jan 16 j 19:05	16°♊14'12	
opposition	-3924 Aug 16 j 02:59	22°☾11'16	-2°-17'-52	evening set	-3917 May 02 j 23:37	24°♊33'03	
min. Earth dist.	-3924 Aug 16 j 02:50	22°☾11'18	8.04535 AU				
direct	-3924 Oct 21 j 08:34	18°☾45'39		conjunction	-3917 May 21 j 03:33	26°♊53'29	-1°-21'-33
evening set	-3923 Jan 31 j 03:59	26°☾49'37		minimum elong	-3917 May 21 j 03:37	26°♊53'30	1°21'30
				max. Earth dist.	-3917 May 21 j 20:05	26°♊58'51	10.06289 AU
conjunction	-3923 Feb 17 j 18:44	29°☾07'53	-2°00'-29	morning rise	-3917 Jun 08 j 05:19	29°♊13'09	
minimum elong	-3923 Feb 17 j 18:41	29°☾07'52	2°00'39		-3917 Jun 14 j 10:18	0°♋	
max. Earth dist.	-3923 Feb 17 j 20:40	29°☾08'31	9.99299 AU	retrograde	-3917 Sep 19 j 10:08	7°♋17'17	
	-3923 Feb 24 j 09:08	0°♋		opposition	-3917 Nov 24 j 19:33	3°♋50'25	-1°-23'-17
morning rise	-3923 Mar 07 j 14:27	1°♋27'45		min. Earth dist.	-3917 Nov 24 j 07:50	3°♋52'49	8.12093 AU
retrograde	-3923 Jun 23 j 15:58	10°♋00'35		direct	-3916 Jan 31 j 12:17	0°♋20'47	
opposition	-3923 Aug 30 j 15:07	6°♋29'15	-2°-41'-43	evening set	-3916 May 16 j 21:36	8°♋32'19	
min. Earth dist.	-3923 Aug 30 j 11:43	6°♋29'57	7.95011 AU				
direct	-3923 Nov 04 j 13:50	3°♋02'22		conjunction	-3916 Jun 03 j 23:55	10°♋50'18	0°-50'-58
evening set	-3922 Feb 15 j 05:59	11°♋16'00		minimum elong	-3916 Jun 03 j 23:57	10°♋50'19	0°50'54
				max. Earth dist.	-3916 Jun 04 j 14:29	10°♋54'58	10.18409 AU
conjunction	-3922 Mar 05 j 00:30	13°♋36'37	-2°-15'-39	morning rise	-3916 Jun 21 j 22:57	13°♋07'10	
minimum elong	-3922 Mar 05 j 00:28	13°♋36'36	2°15'48		-3916 Jul 07 j 09:07	15°♋	
max. Earth dist.	-3922 Mar 05 j 07:15	13°♋38'51	9.91265 AU	retrograde	-3916 Oct 01 j 23:31	20°♋58'20	
	-3922 Mar 15 j 12:15	15°♋		opposition	-3916 Dec 07 j 13:24	17°♋33'16	0°-43'-30
morning rise	-3922 Mar 22 j 23:09	15°♋58'34		min. Earth dist.	-3916 Dec 07 j 02:32	17°♋35'28	8.25043 AU
retrograde	-3922 Jul 08 j 21:17	24°♋36'15			-3915 Jan 12 j 02:20	15°♌	
opposition	-3922 Sep 14 j 07:22	21°♋04'36	-2°-55'-42	direct	-3915 Feb 13 j 22:51	14°♌04'18	
min. Earth dist.	-3922 Sep 14 j 00:31	21°♋06'01	7.88754 AU		-3915 Mar 18 j 17:48	15°♌	
direct	-3922 Nov 19 j 02:39	17°♋36'36		evening set	-3915 May 31 j 08:36	22°♌07'05	
evening set	-3921 Mar 02 j 16:58	25°♋57'43					
				conjunction	-3915 Jun 18 j 07:58	24°♌22'04	0°-18'-19
conjunction	-3921 Mar 20 j 14:55	28°♋20'00	-2°-22'-17	minimum elong	-3915 Jun 18 j 07:59	24°♌22'04	0°18'13
minimum elong	-3921 Mar 20 j 14:55	28°♋20'00	2°22'24	max. Earth dist.	-3915 Jun 18 j 20:37	24°♌26'03	10.32134 AU
max. Earth dist.	-3921 Mar 21 j 02:15	28°♋23'47	9.86788 AU	morning rise	-3915 Jul 06 j 03:05	26°♌35'40	
	-3921 Apr 02 j 03:58	0°♍			-3915 Aug 04 j 12:23	0°♍	
morning rise	-3921 Apr 07 j 15:57	0°♍43'17		retrograde	-3915 Oct 15 j 01:59	4°♍14'04	
retrograde	-3921 Jul 24 j 02:55	9°♍21'41		opposition	-3915 Dec 20 j 23:17	0°♍50'48	0°-2'-40
opposition	-3921 Sep 29 j 01:35	5°♍50'10	-2°-58'-16	min. Earth dist.	-3915 Dec 20 j 13:24	0°♍52'47	8.39273 AU
min. Earth dist.	-3921 Sep 28 j 15:34	5°♍52'16	7.86223 AU		-3915 Dec 31 j 16:16	30°♌	
direct	-3921 Dec 03 j 21:35	2°♍21'16		asc. node	-3914 Jan 14 j 22:44	28°♌57'46	
evening set	-3920 Mar 17 j 09:03	10°♍46'48		direct	-3914 Feb 28 j 02:15	27°♌22'45	
					-3914 Apr 26 j 02:28	0°♍	
conjunction	-3920 Apr 04 j 10:00	13°♍09'58	-2°-19'-37	evening set	-3914 Jun 14 j 07:23	5°♍15'52	
minimum elong	-3920 Apr 04 j 10:02	13°♍09'59	2°19'42				
max. Earth dist.	-3920 Apr 05 j 00:56	13°♍14'56	9.86209 AU	conjunction	-3914 Jul 02 j 02:40	7°♍27'31	0°14'25
morning rise	-3920 Apr 22 j 12:44	15°♍33'42		minimum elong	-3914 Jul 02 j 02:39	7°♍27'31	0°14'33
retrograde	-3920 Aug 07 j 05:18	24°♍08'27		behind sun begin	-3914 Jul 01 j 23:40	7°♍26'35	
opposition	-3920 Oct 12 j 19:04	20°♍37'31	-2°-49'00	behind sun end	-3914 Jul 02 j 05:39	7°♍28'26	
min. Earth dist.	-3920 Oct 12 j 06:58	20°♍40'03	7.87593 AU	max. Earth dist.	-3914 Jul 02 j 13:29	7°♍30'52	10.46746 AU
direct	-3920 Dec 17 j 20:40	17°♍07'57		morning rise	-3914 Jul 19 j 16:57	9°♍37'37	
evening set	-3919 Apr 02 j 02:23	25°♍34'29		retrograde	-3914 Oct 27 j 19:00	17°♍04'05	
				opposition	-3913 Jan 03 j 01:08	13°♍42'32	0°36'53
conjunction	-3919 Apr 20 j 05:30	27°♍57'38	-2°-7'-48	min. Earth dist.	-3913 Jan 02 j 16:49	13°♍44'11	8.54054 AU
minimum elong	-3919 Apr 20 j 05:34	27°♍57'39	2°07'50	direct	-3913 Mar 13 j 19:53	10°♍15'34	
max. Earth dist.	-3919 Apr 20 j 22:35	28°♍03'17	9.89535 AU	evening set	-3913 Jun 27 j 17:57	17°♍58'48	
	-3919 May 05 j 16:49	0°♎					

# Planetary Phenomena of Saturn from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 41

Attention, astronomical year style is used: The year -3913 in astronomical counting style is the year 3914 BCE in historical counting style.

conjunction	-3913 Jul 15 j 08:20	20°II06'59	0°45'26	conjunction	-3907 Sep 21 j 23:32	29°Ω13'43	2°24'56
minimum elong	-3913 Jul 15 j 08:18	20°II06'59	0°45'36	minimum elong	-3907 Sep 21 j 23:32	29°Ω13'43	2°25'01
max. Earth dist.	-3913 Jul 15 j 16:57	20°II09'37	10.61511 AU	max. Earth dist.	-3907 Sep 21 j 14:19	29°Ω11'03	11.20724 AU
morning rise	-3913 Aug 01 j 17:17	22°II13'33			-3907 Sep 28 j 15:25	0°൬	
retrograde	-3913 Nov 09 j 04:00	29°II29'20		morning rise	-3907 Oct 08 j 08:27	1°൬06'47	
opposition	-3912 Jan 15 j 19:14	26°II09'22	1°13'19	retrograde	-3906 Jan 15 j 11:38	7°൬54'17	
min. Earth dist.	-3912 Jan 15 j 13:40	26°II10'27	8.68663 AU	opposition	-3906 Mar 26 j 20:40	4°൬38'24	2°56'21
direct	-3912 Mar 26 j 03:20	22°II43'33		min. Earth dist.	-3906 Mar 27 j 05:17	4°൬36'50	9.22085 AU
	-3912 Jul 07 j 06:05	0°☾		direct	-3906 Jun 06 j 15:00	1°൬19'07	
evening set	-3912 Jul 09 j 16:36	0°☾17'12		evening set	-3906 Sep 16 j 12:47	8°൬15'26	
conjunction	-3912 Jul 27 j 01:34	2°☾22'01	1°13'30	conjunction	-3906 Oct 02 j 22:28	10°൬08'36	2°23'35
minimum elong	-3912 Jul 27 j 01:32	2°☾22'00	1°13'41	minimum elong	-3906 Oct 02 j 22:29	10°൬08'37	2°23'39
max. Earth dist.	-3912 Jul 27 j 06:48	2°☾23'35	10.75730 AU	max. Earth dist.	-3906 Oct 02 j 11:43	10°൬05'30	11.22303 AU
morning rise	-3912 Aug 13 j 05:10	4°☾25'14		morning rise	-3906 Oct 19 j 06:26	12°൬01'20	
retrograde	-3912 Nov 20 j 03:16	11°☾31'53		retrograde	-3905 Jan 26 j 22:53	18°൬50'14	
opposition	-3911 Jan 27 j 06:36	8°☾13'17	1°45'17	opposition	-3905 Apr 07 j 13:48	15°൬34'03	2°51'31
min. Earth dist.	-3911 Jan 27 j 03:54	8°☾13'48	8.82430 AU	min. Earth dist.	-3905 Apr 07 j 23:21	15°൬32'19	9.22249 AU
direct	-3911 Apr 08 j 02:44	4°☾48'40		direct	-3905 Jun 18 j 05:15	12°൬15'28	
evening set	-3911 Jul 22 j 04:00	12°☾13'23		evening set	-3905 Sep 27 j 11:44	19°൬10'03	
conjunction	-3911 Aug 08 j 07:27	14°☾15'02	1°37'37	conjunction	-3905 Oct 13 j 20:43	21°൬03'15	2°17'00
minimum elong	-3911 Aug 08 j 07:24	14°☾15'01	1°37'48	minimum elong	-3905 Oct 13 j 20:44	21°൬03'16	2°17'02
max. Earth dist.	-3911 Aug 08 j 08:55	14°☾15'28	10.88789 AU	max. Earth dist.	-3905 Oct 13 j 09:01	20°൬59'52	11.21072 AU
morning rise	-3911 Aug 25 j 05:59	16°☾15'14		morning rise	-3905 Oct 30 j 04:38	22°൬56'15	
retrograde	-3911 Dec 01 j 20:39	23°☾14'31		retrograde	-3904 Feb 07 j 11:27	29°൬48'10	
opposition	-3910 Feb 08 j 11:59	19°☾57'01	2°11'53	opposition	-3904 Apr 18 j 08:13	26°൬31'26	2°40'29
min. Earth dist.	-3910 Feb 08 j 11:30	19°☾57'07	8.94778 AU	min. Earth dist.	-3904 Apr 18 j 19:00	26°൬29'28	9.19590 AU
direct	-3910 Apr 20 j 19:45	16°☾33'37		direct	-3904 Jun 28 j 15:40	23°൬13'20	
evening set	-3910 Aug 03 j 05:19	23°☾50'15			-3904 Oct 06 j 07:52	0°♄	
conjunction	-3910 Aug 20 j 03:44	25°☾49'10	1°57'09	evening set	-3904 Oct 07 j 10:49	0°♄07'40	
minimum elong	-3910 Aug 20 j 03:41	25°☾49'09	1°57'18	conjunction	-3904 Oct 23 j 19:53	2°♄01'27	2°05'22
max. Earth dist.	-3910 Aug 20 j 02:20	25°☾48'45	11.00182 AU	minimum elong	-3904 Oct 23 j 19:55	2°♄01'27	2°05'22
morning rise	-3910 Sep 05 j 21:37	27°☾46'45		max. Earth dist.	-3904 Oct 23 j 06:29	1°♄57'32	11.17074 AU
	-3910 Sep 25 j 22:18	0°Ω		morning rise	-3904 Nov 09 j 04:58	3°♄55'18	
retrograde	-3910 Dec 13 j 10:07	4°Ω40'27		retrograde	-3903 Feb 18 j 04:53	10°♄51'55	
opposition	-3909 Feb 20 j 12:20	1°Ω23'45	2°32'31	opposition	-3903 Apr 30 j 05:27	7°♄34'21	2°23'27
min. Earth dist.	-3909 Feb 20 j 13:37	1°Ω23'31	9.05238 AU	min. Earth dist.	-3903 Apr 30 j 17:47	7°♄32'06	9.14202 AU
	-3909 Mar 11 j 19:39	30°℞☾		direct	-3903 Jul 10 j 04:02	4°♄16'28	
direct	-3909 May 03 j 02:56	28°☾01'33		evening set	-3903 Oct 18 j 11:43	11°♄12'03	
	-3909 Jun 22 j 23:43	0°Ω		conjunction	-3903 Nov 03 j 21:47	13°♄06'57	1°48'56
evening set	-3909 Aug 14 j 21:57	5°Ω11'10		minimum elong	-3903 Nov 03 j 21:50	13°♄06'57	1°48'53
conjunction	-3909 Aug 31 j 16:01	7°Ω07'50	2°11'40	max. Earth dist.	-3903 Nov 03 j 07:09	13°♄02'39	11.10440 AU
minimum elong	-3909 Aug 31 j 15:59	7°Ω07'49	2°11'48	morning rise	-3903 Nov 20 j 09:00	15°♄02'13	
max. Earth dist.	-3909 Aug 31 j 12:45	7°Ω06'52	11.09493 AU	retrograde	-3902 Mar 02 j 03:11	12°♄05'08	
morning rise	-3909 Sep 17 j 05:52	9°Ω03'20		opposition	-3902 May 12 j 06:17	18°♄46'29	2°00'46
	-3909 Nov 22 j 02:24	15°Ω		min. Earth dist.	-3902 May 12 j 19:11	18°♄44'06	9.06257 AU
retrograde	-3909 Dec 24 j 20:17	15°Ω53'13		direct	-3902 Jul 21 j 17:44	15°♄28'35	
	-3908 Jan 27 j 06:06	15°℞Ω		evening set	-3902 Oct 29 j 16:30	22°♄26'57	
opposition	-3908 Mar 03 j 09:07	12°Ω37'04	2°46'53	conjunction	-3902 Nov 15 j 04:34	24°♄23'30	1°28'03
min. Earth dist.	-3908 Mar 03 j 12:57	12°Ω36'22	9.13436 AU	minimum elong	-3902 Nov 15 j 04:37	24°♄23'31	1°27'59
direct	-3908 May 14 j 03:37	9°Ω15'58		max. Earth dist.	-3902 Nov 14 j 14:19	24°♄19'16	11.01366 AU
	-3908 Aug 13 j 09:02	15°Ω		morning rise	-3902 Dec 01 j 18:31	26°♄20'41	
evening set	-3908 Aug 25 j 07:42	16°Ω19'50			-3901 Jan 04 j 21:35	0°ℳ	
conjunction	-3908 Sep 10 j 22:00	18°Ω14'45	2°20'58	retrograde	-3901 Mar 14 j 09:38	3°ℳ31'27	
minimum elong	-3908 Sep 10 j 21:58	18°Ω14'44	2°21'04	opposition	-3901 May 24 j 11:40	0°ℳ11'28	1°32'54
max. Earth dist.	-3908 Sep 10 j 15:53	18°Ω12'58	11.16407 AU	min. Earth dist.	-3901 May 24 j 23:58	0°ℳ09'11	8.96007 AU
morning rise	-3908 Sep 27 j 08:48	20°Ω08'43			-3901 May 27 j 01:32	30°℞♄	
retrograde	-3907 Jan 04 j 04:41	26°Ω56'32		direct	-3901 Aug 02 j 11:52	26°♄53'19	
opposition	-3907 Mar 15 j 03:30	23°Ω40'41	2°54'50		-3901 Oct 04 j 06:55	0°ℳ	
min. Earth dist.	-3907 Mar 15 j 10:09	23°Ω39'28	9.19109 AU	evening set	-3901 Nov 10 j 03:06	3°ℳ56'02	
direct	-3907 May 25 j 22:50	20°Ω20'34		conjunction	-3901 Nov 26 j 17:47	5°ℳ54'43	1°03'16
evening set	-3907 Sep 05 j 12:09	27°Ω19'58		minimum elong	-3901 Nov 26 j 17:50	5°ℳ54'43	1°03'10

Attention, astronomical year style is used: The year -3901 in astronomical counting style is the year 3902 BCE in historical counting style.

max. Earth dist.	-3901 Nov 26 j 04:18	5° $\mathbb{M}$ 50'40	10.90145 AU
morning rise	-3901 Dec 13 j 11:05	7° $\mathbb{M}$ 54'17	
	-3900 Mar 08 j 22:00	15° $\mathbb{M}$	
retrograde	-3900 Mar 26 j 01:21	15° $\mathbb{M}$ 14'19	
	-3900 Apr 12 j 05:55	15° $\mathbb{R}$ $\mathbb{M}$	
opposition	-3900 Jun 04 j 23:06	11° $\mathbb{M}$ 52'50	1°00'32
min. Earth dist.	-3900 Jun 05 j 10:20	11° $\mathbb{M}$ 50'44	8.83799 AU
direct	-3900 Aug 13 j 08:30	8° $\mathbb{M}$ 34'11	
	-3900 Nov 14 j 19:54	15° $\mathbb{M}$	
evening set	-3900 Nov 20 j 21:19	15° $\mathbb{M}$ 42'47	
conjunction	-3900 Dec 07 j 15:00	17° $\mathbb{M}$ 43'59	0°35'14
minimum elong	-3900 Dec 07 j 15:01	17° $\mathbb{M}$ 43'59	0°35'08
max. Earth dist.	-3900 Dec 07 j 01:35	17° $\mathbb{M}$ 39'55	10.77168 AU
morning rise	-3900 Dec 24 j 12:17	19° $\mathbb{M}$ 46'21	



## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 1

Attention, astronomical year style is used: The year -3900 in astronomical counting style is the year 3901 BCE in historical counting style.

	-3900 Mar 08 j 22:00	15° $\mathbb{M}$	conjunction	-3894 Feb 11 j 09:39	22° $\mathfrak{Z}$ 53'00	-1°-51'-9
retrograde	-3900 Mar 26 j 01:21	15° $\mathbb{M}$ 14'19	minimum elong	-3894 Feb 11 j 09:35	22° $\mathfrak{Z}$ 52'58	1°51'20
	-3900 Apr 12 j 05:55	15° $\mathbb{R}\mathbb{M}$	max. Earth dist.	-3894 Feb 11 j 08:57	22° $\mathfrak{Z}$ 52'46	10.05903 AU
opposition	-3900 Jun 04 j 23:06	11° $\mathbb{M}$ 52'50	1°00'32	morning rise	-3894 Mar 01 j 03:28	25° $\mathfrak{Z}$ 11'20
min. Earth dist.	-3900 Jun 05 j 10:20	11° $\mathbb{M}$ 50'44	8.83799 AU		-3894 Apr 11 j 09:12	0° $\approx$
direct	-3900 Aug 13 j 08:30	8° $\mathbb{M}$ 34'11		retrograde	-3894 Jun 17 j 03:34	3° $\approx$ 39'36
	-3900 Nov 14 j 19:54	15° $\mathbb{M}$		opposition	-3894 Aug 24 j 08:50	0° $\approx$ 08'51
evening set	-3900 Nov 20 j 21:19	15° $\mathbb{M}$ 42'47		min. Earth dist.	-3894 Aug 24 j 07:11	0° $\approx$ 09'11
					-3894 Aug 26 j 04:00	30° $\mathbb{R}\mathfrak{Z}$
conjunction	-3900 Dec 07 j 15:00	17° $\mathbb{M}$ 43'59	0°35'14	direct	-3894 Oct 29 j 09:57	26° $\mathfrak{Z}$ 42'48
minimum elong	-3900 Dec 07 j 15:01	17° $\mathbb{M}$ 43'59	0°35'08		-3894 Dec 29 j 06:53	0° $\approx$
max. Earth dist.	-3900 Dec 07 j 01:35	17° $\mathbb{M}$ 39'55	10.77168 AU	evening set	-3893 Feb 08 j 16:32	4° $\approx$ 51'07
morning rise	-3900 Dec 24 j 12:17	19° $\mathbb{M}$ 46'21				
retrograde	-3899 Apr 08 j 00:55	27° $\mathbb{M}$ 16'58		conjunction	-3893 Feb 26 j 09:04	7° $\approx$ 10'26
opposition	-3899 Jun 17 j 17:22	23° $\mathbb{M}$ 53'50	0°24'34	minimum elong	-3893 Feb 26 j 09:01	7° $\approx$ 10'25
min. Earth dist.	-3899 Jun 18 j 04:00	23° $\mathbb{M}$ 51'49	8.70067 AU	max. Earth dist.	-3893 Feb 26 j 12:07	7° $\approx$ 11'27
direct	-3899 Aug 25 j 10:57	20° $\mathbb{M}$ 34'22		morning rise	-3893 Mar 16 j 06:11	9° $\approx$ 31'14
evening set	-3899 Dec 03 j 01:13	27° $\mathbb{M}$ 50'30			-3893 May 02 j 17:52	15° $\approx$
				retrograde	-3893 Jul 02 j 07:25	18° $\approx$ 06'12
conjunction	-3899 Dec 19 j 22:21	29° $\mathbb{M}$ 54'33	0°04'58		-3893 Sep 02 j 20:30	15° $\mathbb{R}\approx$
minimum elong	-3899 Dec 19 j 22:22	29° $\mathbb{M}$ 54'33	0°04'51	opposition	-3893 Sep 07 j 22:37	14° $\approx$ 34'44
behind sun begin	-3899 Dec 19 j 15:28	29° $\mathbb{M}$ 52'27		min. Earth dist.	-3893 Sep 07 j 18:13	14° $\approx$ 35'39
behind sun end	-3899 Dec 20 j 05:16	29° $\mathbb{M}$ 56'40		direct	-3893 Nov 12 j 18:27	11° $\approx$ 07'15
max. Earth dist.	-3899 Dec 19 j 09:35	29° $\mathbb{M}$ 50'38	10.62888 AU		-3892 Jan 18 j 06:33	15° $\approx$
	-3899 Dec 20 j 16:05	0° $\mathfrak{A}$		evening set	-3892 Feb 23 j 22:38	19° $\approx$ 24'20
morning rise	-3898 Jan 05 j 23:59	2° $\mathfrak{A}$ 00'01				
desc. node	-3898 Feb 17 j 06:26	6° $\mathfrak{A}$ 35'46		conjunction	-3892 Mar 12 j 18:45	21° $\approx$ 45'42
retrograde	-3898 Apr 21 j 10:07	9° $\mathfrak{A}$ 42'15		minimum elong	-3892 Mar 12 j 18:44	21° $\approx$ 45'42
opposition	-3898 Jun 30 j 18:56	6° $\mathfrak{A}$ 17'24	0°-13'-43	max. Earth dist.	-3892 Mar 13 j 01:35	21° $\approx$ 47'59
min. Earth dist.	-3898 Jul 01 j 04:44	6° $\mathfrak{A}$ 15'31	8.55309 AU	morning rise	-3892 Mar 30 j 18:41	24° $\approx$ 08'18
direct	-3898 Sep 06 j 22:18	2° $\mathfrak{A}$ 56'53			-3892 May 20 j 22:55	0° $\mathfrak{H}$
evening set	-3898 Dec 15 j 16:18	10° $\mathfrak{A}$ 22'04		retrograde	-3892 Jul 16 j 12:18	2° $\mathfrak{H}$ 46'10
					-3892 Sep 12 j 11:35	30° $\mathbb{R}\approx$
conjunction	-3897 Jan 01 j 17:19	12° $\mathfrak{A}$ 29'15	0°-26'-32	opposition	-3892 Sep 21 j 15:26	29° $\approx$ 14'24
minimum elong	-3897 Jan 01 j 17:17	12° $\mathfrak{A}$ 29'15	0°26'42	min. Earth dist.	-3892 Sep 21 j 08:38	29° $\approx$ 15'50
max. Earth dist.	-3897 Jan 01 j 06:27	12° $\mathfrak{A}$ 25'51	10.47835 AU	direct	-3892 Nov 26 j 10:52	25° $\approx$ 45'41
morning rise	-3897 Jan 18 j 23:14	14° $\mathfrak{A}$ 38'02			-3891 Feb 04 j 08:25	0° $\mathfrak{H}$
retrograde	-3897 May 05 j 06:27	22° $\mathfrak{A}$ 32'37		evening set	-3891 Mar 10 j 11:54	4° $\mathfrak{H}$ 08'56
opposition	-3897 Jul 14 j 04:37	19° $\mathfrak{A}$ 06'04	0°-52'-43			
min. Earth dist.	-3897 Jul 14 j 12:31	19° $\mathfrak{A}$ 04'32	8.40141 AU	conjunction	-3891 Mar 28 j 11:18	6° $\mathfrak{H}$ 31'40
direct	-3897 Sep 19 j 17:02	15° $\mathfrak{A}$ 44'21		minimum elong	-3891 Mar 28 j 11:19	6° $\mathfrak{H}$ 31'40
evening set	-3897 Dec 28 j 20:01	23° $\mathfrak{A}$ 19'52		max. Earth dist.	-3891 Mar 28 j 21:46	6° $\mathfrak{H}$ 35'09
				morning rise	-3891 Apr 15 j 13:26	8° $\mathfrak{H}$ 55'14
conjunction	-3896 Jan 15 j 01:02	25° $\mathfrak{A}$ 30'18	0°-57'-34	retrograde	-3891 Jul 31 j 15:06	17° $\mathfrak{H}$ 31'46
minimum elong	-3896 Jan 15 j 00:59	25° $\mathfrak{A}$ 30'18	0°57'45	opposition	-3891 Oct 06 j 08:52	14° $\mathfrak{H}$ 00'12
max. Earth dist.	-3896 Jan 14 j 17:26	25° $\mathfrak{A}$ 27'53	10.32726 AU	min. Earth dist.	-3891 Oct 05 j 23:46	14° $\mathfrak{H}$ 02'07
morning rise	-3896 Feb 01 j 11:06	27° $\mathfrak{A}$ 42'27		direct	-3891 Dec 11 j 08:50	10° $\mathfrak{H}$ 30'30
	-3896 Feb 20 j 11:37	0° $\mathfrak{Z}$		evening set	-3890 Mar 26 j 04:24	18° $\mathfrak{H}$ 56'44
retrograde	-3896 May 18 j 12:54	5° $\mathfrak{Z}$ 49'31				
opposition	-3896 Jul 26 j 22:35	2° $\mathfrak{Z}$ 21'20	-1°-30'-24	conjunction	-3890 Apr 13 j 06:29	21° $\mathfrak{H}$ 19'58
min. Earth dist.	-3896 Jul 27 j 03:18	2° $\mathfrak{Z}$ 20'24	8.25383 AU	minimum elong	-3890 Apr 13 j 06:32	21° $\mathfrak{H}$ 19'59
	-3896 Aug 28 j 16:58	30° $\mathbb{R}\mathfrak{A}$		max. Earth dist.	-3890 Apr 13 j 20:03	21° $\mathfrak{H}$ 24'29
direct	-3896 Oct 01 j 21:15	28° $\mathfrak{A}$ 58'16		morning rise	-3890 May 01 j 09:54	23° $\mathfrak{H}$ 43'35
	-3896 Nov 04 j 09:18	0° $\mathfrak{Z}$			-3890 Jun 26 j 10:55	0° $\mathbb{Y}$
evening set	-3895 Jan 10 j 13:33	6° $\mathfrak{Z}$ 44'54		retrograde	-3890 Aug 15 j 12:25	2° $\mathbb{Y}$ 14'38
					-3890 Oct 05 j 12:28	30° $\mathbb{R}\mathfrak{H}$
conjunction	-3895 Jan 27 j 22:32	8° $\mathfrak{Z}$ 58'35	-1°-26'-26	opposition	-3890 Oct 21 j 00:18	28° $\mathfrak{H}$ 43'46
minimum elong	-3895 Jan 27 j 22:29	8° $\mathfrak{Z}$ 58'34	1°26'37	min. Earth dist.	-3890 Oct 20 j 13:11	28° $\mathfrak{H}$ 46'06
max. Earth dist.	-3895 Jan 27 j 18:19	8° $\mathfrak{Z}$ 57'13	10.18451 AU	direct	-3890 Dec 26 j 08:55	25° $\mathfrak{H}$ 13'27
morning rise	-3895 Feb 14 j 12:38	11° $\mathfrak{Z}$ 13'58			-3889 Mar 11 j 21:02	0° $\mathbb{Y}$
retrograde	-3895 Jun 02 j 04:28	19° $\mathfrak{Z}$ 32'36		evening set	-3889 Apr 10 j 19:53	3° $\mathbb{Y}$ 39'11
opposition	-3895 Aug 10 j 00:15	16° $\mathfrak{Z}$ 02'59	-2°-4'-20			
min. Earth dist.	-3895 Aug 10 j 01:40	16° $\mathfrak{Z}$ 02'42	8.11935 AU	conjunction	-3889 Apr 28 j 23:45	6° $\mathbb{Y}$ 02'01
direct	-3895 Oct 15 j 11:12	12° $\mathfrak{Z}$ 38'26		minimum elong	-3889 Apr 28 j 23:49	6° $\mathbb{Y}$ 02'03
evening set	-3894 Jan 24 j 20:48	20° $\mathfrak{Z}$ 36'17		max. Earth dist.	-3889 Apr 29 j 15:32	6° $\mathbb{Y}$ 07'14

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 2

Attention, astronomical year style is used: The year -3889 in astronomical counting style is the year 3890 BCE in historical counting style.

morning rise	-3889 May 17 j 03:25	8°Υ24'45		max. Earth dist.	-3883 Jul 21 j 21:23	26°Π58'43	10.68733 AU
retrograde	-3889 Aug 30 j 02:06	16°Υ46'50		morning rise	-3883 Aug 07 j 20:38	29°Π01'24	
opposition	-3889 Nov 04 j 11:30	13°Υ17'04	-2°-14'-15		-3883 Aug 16 j 04:41	0°☾	
min. Earth dist.	-3889 Nov 03 j 22:59	13°Υ19'40	7.95494 AU	retrograde	-3883 Nov 14 j 23:22	6°☾12'16	
direct	-3888 Jan 10 j 07:20	9°Υ46'29		opposition	-3882 Jan 21 j 21:46	2°☾52'58	1°30'55
evening set	-3888 Apr 25 j 06:29	18°Υ08'30		min. Earth dist.	-3882 Jan 21 j 16:05	2°☾54'04	8.75859 AU
					-3882 Mar 07 j 18:06	30°RΠ	
conjunction	-3888 May 13 j 10:56	20°Υ30'03	-1°-34'-39	direct	-3882 Apr 02 j 13:23	29°Π27'49	
minimum elong	-3888 May 13 j 11:00	20°Υ30'04	1°34'37		-3882 Apr 28 j 05:22	0°☾	
max. Earth dist.	-3888 May 14 j 03:52	20°Υ35'34	9.99883 AU	evening set	-3882 Jul 16 j 19:21	6°☾56'45	
morning rise	-3888 May 31 j 13:41	22°Υ51'00					
	-3888 Aug 10 j 00:40	0°♄		conjunction	-3882 Aug 03 j 01:33	8°☾59'54	1°26'51
retrograde	-3888 Sep 12 j 07:38	1°♄01'37		minimum elong	-3882 Aug 03 j 01:30	8°☾59'53	1°27'01
	-3888 Oct 15 j 20:56	30°RΥ		max. Earth dist.	-3882 Aug 03 j 06:28	9°☾01'22	10.82779 AU
opposition	-3888 Nov 17 j 16:37	27°Υ33'18	-1°-40'-57	morning rise	-3882 Aug 20 j 02:26	11°☾01'30	
min. Earth dist.	-3888 Nov 17 j 03:39	27°Υ35'59	8.05109 AU	retrograde	-3882 Nov 26 j 21:43	18°☾04'12	
direct	-3887 Jan 24 j 02:18	24°Υ02'52		opposition	-3881 Feb 03 j 06:02	14°☾46'20	2°00'07
	-3887 Apr 21 j 12:05	0°♄		min. Earth dist.	-3881 Feb 03 j 03:08	14°☾46'53	8.89304 AU
evening set	-3887 May 10 j 09:14	2°♄18'30		direct	-3881 Apr 15 j 08:04	11°☾22'36	
				evening set	-3881 Jul 29 j 01:41	18°☾43'01	
conjunction	-3887 May 28 j 12:45	4°♄37'55	-1°-5'-47				
minimum elong	-3887 May 28 j 12:48	4°♄37'56	1°05'43	conjunction	-3881 Aug 15 j 02:35	20°☾43'13	1°48'36
max. Earth dist.	-3887 May 29 j 05:36	4°♄43'21	10.10932 AU	minimum elong	-3881 Aug 15 j 02:31	20°☾43'12	1°48'46
morning rise	-3887 Jun 15 j 13:13	6°♄56'20		max. Earth dist.	-3881 Aug 15 j 04:13	20°☾43'42	10.95367 AU
retrograde	-3887 Sep 26 j 02:52	14°♄54'07		morning rise	-3881 Aug 31 j 22:29	22°☾41'58	
opposition	-3887 Dec 01 j 14:21	11°♄27'32	-1°-2'-33	retrograde	-3881 Dec 08 j 12:42	29°☾38'11	
min. Earth dist.	-3887 Dec 01 j 02:10	11°♄30'02	8.17259 AU	opposition	-3880 Feb 15 j 08:53	26°☾21'29	2°23'35
direct	-3886 Feb 07 j 15:45	7°♄57'37		min. Earth dist.	-3880 Feb 15 j 09:17	26°☾21'24	9.01045 AU
	-3886 May 16 j 05:50	15°♄		direct	-3880 Apr 26 j 18:13	22°☾59'05	
evening set	-3886 May 25 j 01:37	16°♄04'59			-3880 Aug 07 j 04:49	0°♄	
				evening set	-3880 Aug 08 j 22:53	0°♄12'02	
conjunction	-3886 Jun 12 j 02:43	18°♄21'36	0°-33'-49				
minimum elong	-3886 Jun 12 j 02:45	18°♄21'36	0°33'43	conjunction	-3880 Aug 25 j 18:49	2°♄09'41	2°05'30
max. Earth dist.	-3886 Jun 12 j 18:05	18°♄26'28	10.24132 AU	minimum elong	-3880 Aug 25 j 18:47	2°♄09'40	2°05'38
morning rise	-3886 Jun 29 j 23:46	20°♄36'55		max. Earth dist.	-3880 Aug 25 j 16:28	2°♄09'00	11.06011 AU
retrograde	-3886 Oct 09 j 10:47	28°♄21'35		morning rise	-3880 Sep 11 j 10:32	4°♄06'06	
opposition	-3886 Dec 15 j 04:09	24°♄56'53	0°-21'-51	retrograde	-3880 Dec 18 j 23:32	10°♄57'38	
min. Earth dist.	-3886 Dec 14 j 17:27	24°♄59'03	8.31199 AU	opposition	-3879 Feb 26 j 07:40	7°♄41'44	2°40'53
direct	-3885 Feb 21 j 22:26	21°♄27'50		min. Earth dist.	-3879 Feb 26 j 10:35	7°♄41'11	9.10624 AU
evening set	-3885 Jun 08 j 06:07	29°♄25'45		direct	-3879 May 08 j 23:52	4°♄20'34	
	-3885 Jun 12 j 21:27	0°Π		evening set	-3879 Aug 20 j 12:05	11°♄27'09	
conjunction	-3885 Jun 26 j 03:32	1°Π39'07	0°00'-54	conjunction	-3879 Sep 06 j 03:56	13°♄22'46	2°17'14
minimum elong	-3885 Jun 26 j 03:30	1°Π39'07	0°00'47	minimum elong	-3879 Sep 06 j 03:54	13°♄22'46	2°17'21
behind sun begin	-3885 Jun 25 j 20:15	1°Π36'52		max. Earth dist.	-3879 Sep 05 j 22:45	13°♄21'16	11.14308 AU
behind sun end	-3885 Jun 26 j 10:46	1°Π41'21			-3879 Sep 20 j 03:22	15°♄	
max. Earth dist.	-3885 Jun 26 j 16:15	1°Π43'05	10.38693 AU	morning rise	-3879 Sep 22 j 16:10	15°♄17'23	
asc. node	-3885 Jul 06 j 09:25	2°Π55'50		retrograde	-3879 Dec 30 j 10:01	22°♄06'02	
morning rise	-3885 Jul 13 j 20:15	3°Π51'00		opposition	-3878 Mar 10 j 03:24	18°♄50'34	2°51'49
retrograde	-3885 Oct 22 j 07:21	11°Π23'08		min. Earth dist.	-3878 Mar 10 j 08:15	18°♄49'40	9.17659 AU
opposition	-3885 Dec 28 j 09:40	8°Π00'21	0°18'35	direct	-3878 May 20 j 22:49	15°♄30'30	
min. Earth dist.	-3885 Dec 28 j 00:41	8°Π02'08	8.46126 AU	evening set	-3878 Aug 31 j 19:10	22°♄31'56	
direct	-3884 Mar 06 j 20:50	4°Π32'25					
evening set	-3884 Jun 20 j 22:31	12°Π20'28		conjunction	-3878 Sep 17 j 07:54	24°♄26'09	2°23'40
				minimum elong	-3878 Sep 17 j 07:54	24°♄26'08	2°23'45
conjunction	-3884 Jul 08 j 15:15	14°Π30'22	0°31'09	max. Earth dist.	-3878 Sep 17 j 00:36	24°♄24'01	11.19919 AU
minimum elong	-3884 Jul 08 j 15:14	14°Π30'21	0°31'19	morning rise	-3878 Oct 03 j 17:31	26°♄19'32	
max. Earth dist.	-3884 Jul 09 j 00:55	14°Π33'20	10.53812 AU		-3878 Nov 08 j 01:41	0°♄	
morning rise	-3884 Jul 26 j 02:59	16°Π38'40		retrograde	-3877 Jan 10 j 18:23	3°♄07'03	
retrograde	-3884 Nov 02 j 19:24	23°Π59'25			-3877 Mar 19 j 23:47	30°R♄	
opposition	-3883 Jan 09 j 07:14	20°Π38'28	0°56'42	opposition	-3877 Mar 21 j 21:11	29°♄51'42	2°56'18
min. Earth dist.	-3883 Jan 08 j 23:46	20°Π39'55	8.61254 AU	min. Earth dist.	-3877 Mar 22 j 04:32	29°♄50'22	9.21858 AU
direct	-3883 Mar 20 j 09:36	17°Π11'52		direct	-3877 Jun 01 j 15:49	26°♄32'32	
evening set	-3883 Jul 04 j 02:46	24°Π50'08			-3877 Aug 09 j 09:25	0°♄	
				evening set	-3877 Sep 11 j 21:55	3°♄30'17	
conjunction	-3883 Jul 21 j 14:20	26°Π56'34	1°00'46				
minimum elong	-3883 Jul 21 j 14:17	26°Π56'33	1°00'56	conjunction	-3877 Sep 28 j 08:22	5°♄23'39	2°24'45

# Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 3

Attention, astronomical year style is used: The year -3877 in astronomical counting style is the year 3878 BCE in historical counting style.

minimum elong	-3877 Sep 28 j 08:22	5° $\overline{\text{m}}$ 23'40	2°24'50			-3871 Dec 22 j 12:41	15° $\overline{\text{m}}$	
max. Earth dist.	-3877 Sep 27 j 22:09	5° $\overline{\text{m}}$ 20'42	11.22619 AU	retrograde		-3870 Apr 02 j 11:14	22° $\overline{\text{m}}$ 04'26	
morning rise	-3877 Oct 14 j 16:32	7° $\overline{\text{m}}$ 16'27		opposition		-3870 Jun 12 j 08:00	18° $\overline{\text{m}}$ 41'28	0°41'17
retrograde	-3876 Jan 22 j 04:20	14° $\overline{\text{m}}$ 04'38		min. Earth dist.		-3870 Jun 12 j 20:01	18° $\overline{\text{m}}$ 39'12	8.74563 AU
opposition	-3876 Apr 01 j 14:41	10° $\overline{\text{m}}$ 49'06	2°54'23	direct		-3870 Aug 20 j 10:09	15° $\overline{\text{m}}$ 21'46	
min. Earth dist.	-3876 Apr 02 j 01:02	10° $\overline{\text{m}}$ 47'13	9.23076 AU	evening set		-3870 Nov 27 j 22:12	22° $\overline{\text{m}}$ 34'56	
direct	-3876 Jun 12 j 06:28	7° $\overline{\text{m}}$ 30'37						
evening set	-3876 Sep 21 j 22:00	14° $\overline{\text{m}}$ 26'06		conjunction		-3870 Dec 14 j 17:57	24° $\overline{\text{m}}$ 37'53	0°18'54
				minimum elong		-3870 Dec 14 j 17:58	24° $\overline{\text{m}}$ 37'53	0°18'46
conjunction	-3876 Oct 08 j 07:03	16° $\overline{\text{m}}$ 19'14	2°20'33	max. Earth dist.		-3870 Dec 14 j 05:11	24° $\overline{\text{m}}$ 33'59	10.67483 AU
minimum elong	-3876 Oct 08 j 07:05	16° $\overline{\text{m}}$ 19'14	2°20'37	morning rise		-3870 Dec 31 j 17:31	26° $\overline{\text{m}}$ 42'06	
max. Earth dist.	-3876 Oct 07 j 17:54	16° $\overline{\text{m}}$ 15'25	11.22361 AU			-3869 Jan 29 j 22:36	0° $\overline{\text{z}}$	
morning rise	-3876 Oct 24 j 14:58	18° $\overline{\text{m}}$ 12'04		retrograde		-3869 Apr 15 j 17:12	4° $\overline{\text{z}}$ 19'38	
retrograde	-3875 Feb 01 j 14:14	25° $\overline{\text{m}}$ 02'38		opposition		-3869 Jun 25 j 06:14	0° $\overline{\text{z}}$ 54'53	0°03'49
opposition	-3875 Apr 13 j 08:59	21° $\overline{\text{m}}$ 46'33	2°46'10	min. Earth dist.		-3869 Jun 25 j 16:04	0° $\overline{\text{z}}$ 53'00	8.60014 AU
min. Earth dist.	-3875 Apr 13 j 21:05	21° $\overline{\text{m}}$ 44'21	9.21337 AU			-3869 Jul 07 j 08:01	30° $\overline{\text{r}}$ $\overline{\text{m}}$	
direct	-3875 Jun 23 j 18:47	18° $\overline{\text{m}}$ 28'29		desc. node		-3869 Aug 01 j 17:57	28° $\overline{\text{m}}$ 22'47	
evening set	-3875 Oct 02 j 21:12	25° $\overline{\text{m}}$ 23'08		direct		-3869 Sep 01 j 17:43	27° $\overline{\text{m}}$ 34'13	
						-3869 Oct 25 j 07:47	0° $\overline{\text{z}}$	
conjunction	-3875 Oct 19 j 06:06	27° $\overline{\text{m}}$ 16'37	2°11'12	evening set		-3869 Dec 10 j 08:11	4° $\overline{\text{z}}$ 55'48	
minimum elong	-3875 Oct 19 j 06:08	27° $\overline{\text{m}}$ 16'38	2°11'14					
max. Earth dist.	-3875 Oct 18 j 15:53	27° $\overline{\text{m}}$ 12'29	11.19214 AU	conjunction		-3869 Dec 27 j 07:33	7° $\overline{\text{z}}$ 01'48	0°-12'-16
morning rise	-3875 Nov 04 j 14:38	29° $\overline{\text{m}}$ 10'04		minimum elong		-3869 Dec 27 j 07:32	7° $\overline{\text{z}}$ 01'47	0°12'26
	-3875 Nov 11 j 23:58	0° $\overline{\text{z}}$		behind sun begin		-3869 Dec 27 j 02:51	7° $\overline{\text{z}}$ 00'21	
retrograde	-3874 Feb 13 j 06:46	6° $\overline{\text{z}}$ 04'41		behind sun end		-3869 Dec 27 j 12:13	7° $\overline{\text{z}}$ 03'14	
opposition	-3874 Apr 25 j 05:06	2° $\overline{\text{z}}$ 47'41	2°31'52	max. Earth dist.		-3869 Dec 26 j 20:21	6° $\overline{\text{z}}$ 58'19	10.52616 AU
min. Earth dist.	-3874 Apr 25 j 17:43	2° $\overline{\text{z}}$ 45'23	9.16745 AU	morning rise		-3868 Jan 13 j 11:25	9° $\overline{\text{z}}$ 09'16	
	-3874 Jun 09 j 22:55	30° $\overline{\text{r}}$ $\overline{\text{m}}$		retrograde		-3868 Apr 28 j 10:02	16° $\overline{\text{z}}$ 58'55	
direct	-3874 Jul 05 j 09:11	29° $\overline{\text{m}}$ 29'48		opposition		-3868 Jul 07 j 12:34	13° $\overline{\text{z}}$ 32'25	0°-35'-8
	-3874 Jul 30 j 08:16	0° $\overline{\text{z}}$		min. Earth dist.		-3868 Jul 07 j 20:15	13° $\overline{\text{z}}$ 30'56	8.44975 AU
evening set	-3874 Oct 13 j 21:20	6° $\overline{\text{z}}$ 25'01		direct		-3868 Sep 13 j 07:14	10° $\overline{\text{z}}$ 10'37	
				evening set		-3868 Dec 22 j 06:12	17° $\overline{\text{z}}$ 41'57	
conjunction	-3874 Oct 30 j 07:03	8° $\overline{\text{z}}$ 19'27	1°56'56					
minimum elong	-3874 Oct 30 j 07:05	8° $\overline{\text{z}}$ 19'27	1°56'55	conjunction		-3867 Jan 08 j 09:20	19° $\overline{\text{z}}$ 51'07	0°-43'-42
max. Earth dist.	-3874 Oct 29 j 16:32	8° $\overline{\text{z}}$ 15'12	11.13302 AU	minimum elong		-3867 Jan 08 j 09:18	19° $\overline{\text{z}}$ 51'07	0°43'52
morning rise	-3874 Nov 15 j 17:06	10° $\overline{\text{z}}$ 14'05		max. Earth dist.		-3867 Jan 08 j 00:07	19° $\overline{\text{z}}$ 48'12	10.37583 AU
retrograde	-3873 Feb 25 j 03:42	17° $\overline{\text{z}}$ 14'17		morning rise		-3867 Jan 25 j 17:40	22° $\overline{\text{z}}$ 01'58	
opposition	-3873 May 07 j 04:21	13° $\overline{\text{z}}$ 56'07	2°11'44			-3867 May 03 j 14:47	0° $\overline{\text{z}}$	
min. Earth dist.	-3873 May 07 j 17:21	13° $\overline{\text{z}}$ 53'44	9.09464 AU	retrograde		-3867 May 12 j 11:35	0° $\overline{\text{z}}$ 04'02	
direct	-3873 Jul 16 j 21:28	10° $\overline{\text{z}}$ 38'08				-3867 May 21 j 08:11	30° $\overline{\text{r}}$ $\overline{\text{z}}$	
evening set	-3873 Oct 25 j 00:25	17° $\overline{\text{z}}$ 35'28		opposition		-3867 Jul 21 j 03:07	26° $\overline{\text{z}}$ 35'55	-1°-13'-44
				min. Earth dist.		-3867 Jul 21 j 08:41	26° $\overline{\text{z}}$ 34'49	8.30167 AU
conjunction	-3873 Nov 10 j 11:33	19° $\overline{\text{z}}$ 31'19	1°38'02	direct		-3867 Sep 26 j 07:32	23° $\overline{\text{z}}$ 12'50	
minimum elong	-3873 Nov 10 j 11:36	19° $\overline{\text{z}}$ 31'20	1°37'59			-3867 Dec 28 j 08:47	0° $\overline{\text{z}}$	
max. Earth dist.	-3873 Nov 09 j 19:56	19° $\overline{\text{z}}$ 26'42	11.04833 AU	evening set		-3866 Jan 04 j 17:39	0° $\overline{\text{z}}$ 54'56	
morning rise	-3873 Nov 27 j 00:07	21° $\overline{\text{z}}$ 27'41						
retrograde	-3872 Mar 08 j 05:56	28° $\overline{\text{z}}$ 35'04		conjunction		-3866 Jan 22 j 00:45	3° $\overline{\text{z}}$ 07'20	-1°-13'-49
opposition	-3872 May 18 j 07:55	25° $\overline{\text{z}}$ 15'29	1°46'11	minimum elong		-3866 Jan 22 j 00:42	3° $\overline{\text{z}}$ 07'19	1°13'59
min. Earth dist.	-3872 May 18 j 21:34	25° $\overline{\text{z}}$ 12'57	8.99759 AU	max. Earth dist.		-3866 Jan 21 j 18:40	3° $\overline{\text{z}}$ 05'23	10.23135 AU
direct	-3872 Jul 27 j 12:58	21° $\overline{\text{z}}$ 57'09		morning rise		-3866 Feb 08 j 13:15	5° $\overline{\text{z}}$ 21'29	
evening set	-3872 Nov 04 j 08:19	28° $\overline{\text{z}}$ 58'09		retrograde		-3866 May 26 j 22:37	13° $\overline{\text{z}}$ 35'29	
	-3872 Nov 13 j 02:05	0° $\overline{\text{m}}$		opposition		-3866 Aug 04 j 01:32	10° $\overline{\text{z}}$ 05'57	-1°-49'-42
				min. Earth dist.		-3866 Aug 04 j 04:32	10° $\overline{\text{z}}$ 05'21	8.16375 AU
conjunction	-3872 Nov 20 j 21:38	0° $\overline{\text{m}}$ 55'57	1°14'58	direct		-3866 Oct 09 j 17:50	6° $\overline{\text{z}}$ 41'32	
minimum elong	-3872 Nov 20 j 21:41	0° $\overline{\text{m}}$ 55'58	1°14'53	evening set		-3865 Jan 18 j 18:46	14° $\overline{\text{z}}$ 34'49	
max. Earth dist.	-3872 Nov 20 j 05:40	0° $\overline{\text{m}}$ 51'11	10.94111 AU					
morning rise	-3872 Dec 07 j 13:30	2° $\overline{\text{m}}$ 54'32		conjunction		-3865 Feb 05 j 05:50	16° $\overline{\text{z}}$ 50'20	-1°-40'-40
retrograde	-3871 Mar 20 j 16:20	10° $\overline{\text{m}}$ 10'38		minimum elong		-3865 Feb 05 j 05:47	16° $\overline{\text{z}}$ 50'18	1°40'50
opposition	-3871 May 30 j 16:51	6° $\overline{\text{m}}$ 49'26	1°15'46	max. Earth dist.		-3865 Feb 05 j 04:02	16° $\overline{\text{z}}$ 49'44	10.10083 AU
min. Earth dist.	-3871 May 31 j 06:22	6° $\overline{\text{m}}$ 46'55	8.87985 AU	morning rise		-3865 Feb 22 j 22:08	19° $\overline{\text{z}}$ 07'32	
direct	-3871 Aug 08 j 09:01	3° $\overline{\text{m}}$ 30'30		retrograde		-3865 Jun 10 j 18:19	27° $\overline{\text{z}}$ 32'07	
evening set	-3871 Nov 15 j 22:50	10° $\overline{\text{m}}$ 36'47		opposition		-3865 Aug 18 j 07:24	24° $\overline{\text{z}}$ 01'27	-2°-20'-28
				min. Earth dist.		-3865 Aug 18 j 06:57	24° $\overline{\text{z}}$ 01'32	8.04413 AU
conjunction	-3871 Dec 02 j 15:10	12° $\overline{\text{m}}$ 36'58	0°48'19	direct		-3865 Oct 23 j 13:12	20° $\overline{\text{z}}$ 35'44	
minimum elong	-3871 Dec 02 j 15:12	12° $\overline{\text{m}}$ 36'58	0°48'12	evening set		-3864 Feb 02 j 08:58	28° $\overline{\text{z}}$ 39'48	
max. Earth dist.	-3871 Dec 02 j 00:34	12° $\overline{\text{m}}$ 32'33	10.81509 AU			-3864 Feb 12 j 15:18	0° $\approx$	
morning rise	-3871 Dec 19 j 10:44	14° $\overline{\text{m}}$ 38'12						

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 4

Attention, astronomical year style is used: The year -3864 in astronomical counting style is the year 3865 BCE in historical counting style.

conjunction	-3864 Feb 19 j 23:56	0° $\approx$ 58'06	-2°-2'-14	morning rise	-3858 Jun 09 j 08:24	0° $\approx$ 57'57	
minimum elong	-3864 Feb 19 j 23:53	0° $\approx$ 58'05	2°02'24	retrograde	-3858 Sep 20 j 11:11	9° $\approx$ 01'11	
max. Earth dist.	-3864 Feb 20 j 02:52	0° $\approx$ 59'04	9.99250 AU	opposition	-3858 Nov 25 j 21:03	5° $\approx$ 34'25	-1°-19'-55
morning rise	-3864 Mar 08 j 19:38	3° $\approx$ 17'58		min. Earth dist.	-3858 Nov 25 j 09:04	5° $\approx$ 36'53	8.12973 AU
retrograde	-3864 Jun 24 j 20:49	11° $\approx$ 50'42		direct	-3857 Feb 01 j 15:32	2° $\approx$ 04'50	
opposition	-3864 Aug 31 j 19:19	8° $\approx$ 19'17	-2°-43'-27	evening set	-3857 May 18 j 23:58	10° $\approx$ 15'43	
min. Earth dist.	-3864 Aug 31 j 15:14	8° $\approx$ 20'07	7.95053 AU				
direct	-3864 Nov 05 j 17:40	4° $\approx$ 52'19		conjunction	-3857 Jun 06 j 02:12	12° $\approx$ 33'30	0°-48'-10
evening set	-3863 Feb 16 j 11:00	13° $\approx$ 05'57		minimum elong	-3857 Jun 06 j 02:14	12° $\approx$ 33'31	0°48'06
	-3863 Mar 02 j 21:39	15° $\approx$		max. Earth dist.	-3857 Jun 06 j 16:44	12° $\approx$ 38'09	10.19326 AU
				morning rise	-3857 Jun 24 j 01:01	14° $\approx$ 50'10	
conjunction	-3863 Mar 06 j 05:42	15° $\approx$ 26'33	-2°-16'-39		-3857 Jun 25 j 08:33	15° $\approx$	
minimum elong	-3863 Mar 06 j 05:40	15° $\approx$ 26'33	2°16'47	retrograde	-3857 Oct 03 j 23:20	22° $\approx$ 40'30	
max. Earth dist.	-3863 Mar 06 j 13:11	15° $\approx$ 29'03	9.91381 AU	opposition	-3857 Dec 09 j 14:16	19° $\approx$ 15'31	0°-39'-55
morning rise	-3863 Mar 24 j 04:21	17° $\approx$ 48'29		min. Earth dist.	-3857 Dec 09 j 03:03	19° $\approx$ 17'48	8.25954 AU
retrograde	-3863 Jul 10 j 02:21	26° $\approx$ 25'52		direct	-3856 Feb 16 j 01:42	15° $\approx$ 46'37	
opposition	-3863 Sep 15 j 11:14	22° $\approx$ 54'09	-2°-56'-25	evening set	-3856 Jun 01 j 10:09	23° $\approx$ 48'45	
min. Earth dist.	-3863 Sep 15 j 03:50	22° $\approx$ 55'42	7.88950 AU				
direct	-3863 Nov 20 j 06:29	19° $\approx$ 26'05		conjunction	-3856 Jun 19 j 09:25	26° $\approx$ 03'33	0°-15'-25
evening set	-3862 Mar 03 j 21:56	27° $\approx$ 47'07		minimum elong	-3856 Jun 19 j 09:26	26° $\approx$ 03'33	0°15'19
	-3862 Mar 20 j 15:54	0° $\approx$		behind sun begin	-3856 Jun 19 j 07:32	26° $\approx$ 02'58	
				behind sun end	-3856 Jun 19 j 11:19	26° $\approx$ 04'08	
conjunction	-3862 Mar 21 j 20:01	0° $\approx$ 09'22	-2°-22'-27	max. Earth dist.	-3856 Jun 19 j 22:22	26° $\approx$ 07'37	10.33017 AU
minimum elong	-3862 Mar 21 j 20:01	0° $\approx$ 09'22	2°22'34	morning rise	-3856 Jul 07 j 04:12	28° $\approx$ 16'57	
max. Earth dist.	-3862 Mar 22 j 07:28	0° $\approx$ 13'10	9.87054 AU		-3856 Jul 21 j 11:03	0° $\approx$	
morning rise	-3862 Apr 08 j 21:04	2° $\approx$ 32'36		retrograde	-3856 Oct 16 j 02:08	5° $\approx$ 15'44	
retrograde	-3862 Jul 25 j 07:25	11° $\approx$ 10'30		asc. node	-3856 Dec 13 j 11:38	3° $\approx$ 11'59	
opposition	-3862 Sep 30 j 05:05	7° $\approx$ 38'59	-2°-57'-56	opposition	-3856 Dec 21 j 23:39	2° $\approx$ 31'30	0°00'55
min. Earth dist.	-3862 Sep 29 j 19:06	7° $\approx$ 41'04	7.86553 AU	min. Earth dist.	-3856 Dec 21 j 13:59	2° $\approx$ 33'26	8.40098 AU
direct	-3862 Dec 05 j 01:36	4° $\approx$ 10'02			-3855 Jan 26 j 13:52	30° $\approx$	
evening set	-3861 Mar 19 j 13:46	12° $\approx$ 35'23		direct	-3855 Mar 01 j 03:00	29° $\approx$ 03'31	
					-3855 Apr 03 j 13:01	0° $\approx$	
conjunction	-3861 Apr 06 j 14:43	14° $\approx$ 58'29	-2°-18'-58	evening set	-3855 Jun 15 j 08:25	6° $\approx$ 15'08	
minimum elong	-3861 Apr 06 j 14:45	14° $\approx$ 58'30	2°19'02				
max. Earth dist.	-3861 Apr 07 j 05:14	15° $\approx$ 03'19	9.86603 AU	conjunction	-3855 Jul 03 j 03:29	9° $\approx$ 10'36	0°17'16
morning rise	-3861 Apr 24 j 17:30	17° $\approx$ 22'09		minimum elong	-3855 Jul 03 j 03:28	9° $\approx$ 10'36	0°17'25
retrograde	-3861 Aug 09 j 08:40	25° $\approx$ 56'16		max. Earth dist.	-3855 Jul 03 j 14:15	9° $\approx$ 10'56	10.47495 AU
opposition	-3861 Oct 14 j 22:10	22° $\approx$ 25'25	-2°-47'-40	morning rise	-3855 Jul 20 j 17:22	11° $\approx$ 17'30	
min. Earth dist.	-3861 Oct 14 j 10:34	22° $\approx$ 27'51	7.88046 AU	retrograde	-3855 Oct 28 j 19:59	18° $\approx$ 43'28	
direct	-3861 Dec 20 j 00:27	18° $\approx$ 55'50		opposition	-3854 Jan 04 j 01:12	15° $\approx$ 22'02	0°40'19
evening set	-3860 Apr 03 j 06:38	27° $\approx$ 22'05		min. Earth dist.	-3854 Jan 03 j 17:53	15° $\approx$ 23'29	8.54718 AU
				direct	-3854 Mar 14 j 19:02	11° $\approx$ 55'07	
conjunction	-3860 Apr 21 j 09:43	29° $\approx$ 45'08	-2°-6'-22	evening set	-3854 Jun 28 j 18:33	19° $\approx$ 13'01	
minimum elong	-3860 Apr 21 j 09:46	29° $\approx$ 45'09	2°06'24				
max. Earth dist.	-3860 Apr 22 j 02:04	29° $\approx$ 50'33	9.90056 AU	conjunction	-3854 Jul 16 j 08:33	21° $\approx$ 14'04	0°48'08
	-3860 Apr 23 j 06:38	0° $\approx$		minimum elong	-3854 Jul 16 j 08:31	21° $\approx$ 14'03	0°48'17
morning rise	-3860 May 09 j 13:20	2° $\approx$ 08'18		max. Earth dist.	-3854 Jul 16 j 16:14	21° $\approx$ 14'25	10.62069 AU
retrograde	-3860 Aug 23 j 02:56	10° $\approx$ 34'40		morning rise	-3854 Aug 02 j 17:13	23° $\approx$ 15'29	
opposition	-3860 Oct 28 j 11:46	7° $\approx$ 04'53	-2°-26'-29		-3854 Oct 05 j 02:26	0° $\approx$	
min. Earth dist.	-3860 Oct 27 j 23:26	7° $\approx$ 07'28	7.93293 AU	retrograde	-3854 Nov 10 j 02:40	1° $\approx$ 07'57	
direct	-3859 Jan 03 j 00:00	3° $\approx$ 34'57			-3854 Dec 16 j 19:25	30° $\approx$	
evening set	-3859 Apr 18 j 20:15	11° $\approx$ 58'42		opposition	-3853 Jan 16 j 19:14	27° $\approx$ 14'06	1°16'28
				min. Earth dist.	-3853 Jan 16 j 14:38	27° $\approx$ 14'59	8.69126 AU
conjunction	-3859 May 07 j 00:24	14° $\approx$ 20'48	-1°-45'-48	direct	-3853 Mar 28 j 03:57	24° $\approx$ 12'19	
minimum elong	-3859 May 07 j 00:28	14° $\approx$ 20'50	1°45'48		-3853 Jun 24 j 20:04	0° $\approx$	
max. Earth dist.	-3859 May 07 j 17:13	14° $\approx$ 26'19	9.97099 AU	evening set	-3853 Jul 11 j 16:44	1° $\approx$ 55'48	
morning rise	-3859 May 25 j 03:43	16° $\approx$ 42'32					
retrograde	-3859 Sep 06 j 12:30	24° $\approx$ 58'11		conjunction	-3853 Jul 29 j 01:18	4° $\approx$ 00'29	1°15'55
opposition	-3859 Nov 11 j 19:57	21° $\approx$ 29'47	-1°-56'-22	minimum elong	-3853 Jul 29 j 01:15	4° $\approx$ 00'28	1°16'06
min. Earth dist.	-3859 Nov 11 j 07:34	21° $\approx$ 32'21	8.01838 AU	max. Earth dist.	-3853 Jul 29 j 05:09	4° $\approx$ 01'38	10.76069 AU
direct	-3858 Jan 17 j 22:08	17° $\approx$ 59'50		morning rise	-3853 Aug 15 j 04:43	6° $\approx$ 03'36	
evening set	-3858 May 04 j 02:50	26° $\approx$ 18'10		retrograde	-3853 Nov 22 j 02:17	13° $\approx$ 10'10	
				opposition	-3852 Jan 29 j 06:28	9° $\approx$ 51'38	1°48'03
conjunction	-3858 May 22 j 06:41	28° $\approx$ 38'27	-1°-19'-1	min. Earth dist.	-3852 Jan 29 j 03:57	9° $\approx$ 52'07	8.82659 AU
minimum elong	-3858 May 22 j 06:45	28° $\approx$ 38'29	1°18'59	direct	-3852 Apr 09 j 04:29	6° $\approx$ 27'04	
max. Earth dist.	-3858 May 22 j 22:44	28° $\approx$ 43'39	10.07112 AU	evening set	-3852 Jul 23 j 03:55	13° $\approx$ 51'44	
	-3858 Jun 01 j 19:01	0° $\approx$					

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 5

Attention, astronomical year style is used: The year -3852 in astronomical counting style is the year 3853 BCE in historical counting style.

conjunction	-3852 Aug 09 j 07:07	15° $\mathring{E}$ 53'19	1°39'41	conjunction	-3846 Oct 14 j 21:56	22° $\mathring{M}$ 46'17	2°15'58
minimum elong	-3852 Aug 09 j 07:04	15° $\mathring{E}$ 53'18	1°39'51	minimum elong	-3846 Oct 14 j 21:57	22° $\mathring{M}$ 46'18	2°16'00
max. Earth dist.	-3852 Aug 09 j 08:03	15° $\mathring{E}$ 53'36	10.88885 AU	max. Earth dist.	-3846 Oct 14 j 09:51	22° $\mathring{M}$ 42'47	11.19766 AU
morning rise	-3852 Aug 26 j 05:24	17° $\mathring{E}$ 53'26		morning rise	-3846 Oct 31 j 06:02	24° $\mathring{M}$ 39'29	
retrograde	-3852 Dec 02 j 20:47	24° $\mathring{E}$ 52'49			-3846 Dec 26 j 09:28	0° $\mathring{E}$	
opposition	-3851 Feb 09 j 11:53	21° $\mathring{E}$ 35'20	2°14'09	retrograde	-3845 Feb 08 j 14:49	1° $\mathring{E}$ 32'15	
min. Earth dist.	-3851 Feb 09 j 11:15	21° $\mathring{E}$ 35'27	8.94748 AU		-3845 Mar 26 j 05:56	30° $\mathring{R}$ $\mathring{M}$	
direct	-3851 Apr 21 j 19:13	18° $\mathring{E}$ 12'00		opposition	-3845 Apr 20 j 11:11	28° $\mathring{M}$ 15'22	2°38'55
evening set	-3851 Aug 04 j 05:10	25° $\mathring{E}$ 28'41		min. Earth dist.	-3845 Apr 20 j 22:33	28° $\mathring{M}$ 13'17	9.18208 AU
				direct	-3845 Jun 30 j 17:49	24° $\mathring{M}$ 57'08	
conjunction	-3851 Aug 21 j 03:26	27° $\mathring{E}$ 27'35	1°58'47		-3845 Sep 22 j 14:56	0° $\mathring{E}$	
minimum elong	-3851 Aug 21 j 03:23	27° $\mathring{E}$ 27'34	1°58'56	evening set	-3845 Oct 09 j 12:34	1° $\mathring{E}$ 52'06	
max. Earth dist.	-3851 Aug 21 j 02:16	27° $\mathring{E}$ 27'14	11.00016 AU				
morning rise	-3851 Sep 06 j 20:59	29° $\mathring{E}$ 25'09		conjunction	-3845 Oct 25 j 21:43	3° $\mathring{E}$ 46'06	2°03'47
	-3851 Sep 11 j 22:48	0° $\mathring{E}$		minimum elong	-3845 Oct 25 j 21:46	3° $\mathring{E}$ 46'06	2°03'47
retrograde	-3851 Dec 14 j 10:27	6° $\mathring{E}$ 19'06		max. Earth dist.	-3845 Oct 25 j 07:48	3° $\mathring{E}$ 42'02	11.15635 AU
opposition	-3850 Feb 21 j 12:41	3° $\mathring{E}$ 02'24	2°34'15	morning rise	-3845 Nov 11 j 07:08	5° $\mathring{E}$ 40'11	
min. Earth dist.	-3850 Feb 21 j 14:25	3° $\mathring{E}$ 02'05	9.04943 AU	retrograde	-3844 Feb 20 j 07:43	12° $\mathring{E}$ 37'44	
	-3850 Apr 13 j 15:00	30° $\mathring{R}$ $\mathring{E}$		opposition	-3844 May 01 j 09:01	9° $\mathring{E}$ 19'59	2°21'13
direct	-3850 May 04 j 02:59	29° $\mathring{E}$ 40'13		min. Earth dist.	-3844 May 01 j 21:31	9° $\mathring{E}$ 17'42	9.12704 AU
	-3850 May 24 j 11:49	0° $\mathring{E}$		direct	-3844 Jul 11 j 06:21	6° $\mathring{E}$ 01'59	
evening set	-3850 Aug 15 j 21:51	6° $\mathring{E}$ 50'01		evening set	-3844 Oct 19 j 14:02	12° $\mathring{E}$ 58'16	
				max. Earth dist.	-3844 Nov 04 j 10:27	14° $\mathring{E}$ 49'19	11.08904 AU
conjunction	-3850 Sep 01 j 15:41	8° $\mathring{E}$ 46'41	2°12'50				
minimum elong	-3850 Sep 01 j 15:39	8° $\mathring{E}$ 46'40	2°12'57	conjunction	-3844 Nov 05 j 00:23	14° $\mathring{E}$ 53'25	1°46'48
max. Earth dist.	-3850 Sep 01 j 11:58	8° $\mathring{E}$ 45'36	11.09063 AU	minimum elong	-3844 Nov 05 j 00:26	14° $\mathring{E}$ 53'25	1°46'46
morning rise	-3850 Sep 18 j 05:21	10° $\mathring{E}$ 42'12		morning rise	-3844 Nov 21 j 11:50	16° $\mathring{E}$ 48'57	
	-3850 Oct 30 j 06:42	15° $\mathring{E}$		retrograde	-3843 Mar 03 j 07:55	23° $\mathring{E}$ 52'55	
retrograde	-3850 Dec 25 j 21:18	17° $\mathring{E}$ 32'29		opposition	-3843 May 13 j 10:35	20° $\mathring{E}$ 34'02	1°57'54
	-3849 Feb 23 j 11:32	15° $\mathring{R}$ $\mathring{E}$		min. Earth dist.	-3843 May 13 j 22:41	20° $\mathring{E}$ 31'49	9.04686 AU
opposition	-3849 Mar 05 j 09:54	14° $\mathring{E}$ 16'18	2°48'01	direct	-3843 Jul 22 j 21:59	17° $\mathring{E}$ 16'03	
min. Earth dist.	-3849 Mar 05 j 14:40	14° $\mathring{E}$ 15'25	9.12887 AU	evening set	-3843 Oct 30 j 19:33	24° $\mathring{E}$ 15'08	
direct	-3849 May 16 j 03:41	10° $\mathring{E}$ 55'10					
	-3849 Jul 30 j 09:57	15° $\mathring{E}$		conjunction	-3843 Nov 16 j 07:57	26° $\mathring{E}$ 11'59	1°25'27
evening set	-3849 Aug 27 j 07:49	17° $\mathring{E}$ 59'20		minimum elong	-3843 Nov 16 j 08:00	26° $\mathring{E}$ 12'00	1°25'23
				max. Earth dist.	-3843 Nov 15 j 18:33	26° $\mathring{E}$ 08'00	10.99783 AU
conjunction	-3849 Sep 12 j 21:52	19° $\mathring{E}$ 54'18	2°21'37	morning rise	-3843 Dec 02 j 22:09	28° $\mathring{E}$ 09'27	
minimum elong	-3849 Sep 12 j 21:51	19° $\mathring{E}$ 54'17	2°21'42		-3843 Dec 19 j 05:58	0° $\mathring{M}$	
max. Earth dist.	-3849 Sep 12 j 14:41	19° $\mathring{E}$ 52'12	11.15730 AU	retrograde	-3842 Mar 15 j 16:36	5° $\mathring{M}$ 21'18	
morning rise	-3849 Sep 29 j 08:42	21° $\mathring{E}$ 48'21		opposition	-3842 May 25 j 16:51	2° $\mathring{M}$ 01'07	1°29'28
retrograde	-3848 Jan 06 j 04:19	28° $\mathring{E}$ 36'41		min. Earth dist.	-3842 May 26 j 04:21	1° $\mathring{M}$ 58'59	8.94422 AU
opposition	-3848 Mar 16 j 04:34	25° $\mathring{E}$ 20'44	2°55'19		-3842 Jun 23 j 22:41	30° $\mathring{R}$ $\mathring{E}$	
min. Earth dist.	-3848 Mar 16 j 11:35	25° $\mathring{E}$ 19'27	9.18316 AU	direct	-3842 Aug 03 j 14:57	28° $\mathring{E}$ 42'53	
direct	-3848 May 26 j 23:36	22° $\mathring{E}$ 00'33			-3842 Sep 12 j 02:20	0° $\mathring{M}$	
evening set	-3848 Sep 06 j 12:28	29° $\mathring{E}$ 00'22		evening set	-3842 Nov 11 j 07:03	5° $\mathring{M}$ 46'22	
	-3848 Sep 15 j 04:42	0° $\mathring{M}$					
conjunction	-3848 Sep 22 j 23:49	0° $\mathring{M}$ 54'13	2°25'02	conjunction	-3842 Nov 27 j 21:58	7° $\mathring{M}$ 45'20	1°00'14
minimum elong	-3848 Sep 22 j 23:49	0° $\mathring{M}$ 54'13	2°25'06	minimum elong	-3842 Nov 27 j 22:01	7° $\mathring{M}$ 45'21	1°00'09
max. Earth dist.	-3848 Sep 22 j 14:31	0° $\mathring{M}$ 51'31	11.19812 AU	max. Earth dist.	-3842 Nov 27 j 08:25	7° $\mathring{M}$ 41'16	10.88584 AU
morning rise	-3848 Oct 09 j 08:43	2° $\mathring{M}$ 47'22		morning rise	-3842 Dec 14 j 15:42	9° $\mathring{M}$ 45'13	
retrograde	-3847 Jan 16 j 14:09	9° $\mathring{M}$ 35'32			-3841 Feb 04 j 10:11	15° $\mathring{M}$	
opposition	-3847 Mar 27 j 22:15	6° $\mathring{M}$ 19'32	2°56'11	retrograde	-3841 Mar 28 j 07:17	17° $\mathring{M}$ 06'21	
min. Earth dist.	-3847 Mar 28 j 06:22	6° $\mathring{M}$ 18'03	9.21058 AU		-3841 May 21 j 01:23	15° $\mathring{R}$ $\mathring{M}$	
direct	-3847 Jun 07 j 17:06	3° $\mathring{M}$ 00'11		opposition	-3841 Jun 07 j 05:06	13° $\mathring{M}$ 44'42	0°56'38
evening set	-3847 Sep 17 j 13:26	9° $\mathring{M}$ 56'56		min. Earth dist.	-3841 Jun 07 j 16:15	13° $\mathring{M}$ 42'37	8.82270 AU
				direct	-3841 Aug 15 j 12:19	10° $\mathring{M}$ 25'56	
conjunction	-3847 Oct 03 j 23:12	11° $\mathring{M}$ 50'16	2°23'07		-3841 Oct 31 j 06:38	15° $\mathring{M}$	
minimum elong	-3847 Oct 03 j 23:13	11° $\mathring{M}$ 50'16	2°23'11	evening set	-3841 Nov 23 j 02:13	17° $\mathring{M}$ 35'24	
max. Earth dist.	-3847 Oct 03 j 13:02	11° $\mathring{M}$ 47'19	11.21173 AU				
morning rise	-3847 Oct 20 j 07:06	13° $\mathring{M}$ 43'08		conjunction	-3841 Dec 09 j 20:09	19° $\mathring{M}$ 36'53	0°31'55
retrograde	-3846 Jan 28 j 00:57	20° $\mathring{M}$ 32'48		minimum elong	-3841 Dec 09 j 20:10	19° $\mathring{M}$ 36'53	0°31'48
opposition	-3846 Apr 08 j 16:06	17° $\mathring{M}$ 16'28	2°50'39	max. Earth dist.	-3841 Dec 09 j 06:51	19° $\mathring{M}$ 32'50	10.75703 AU
min. Earth dist.	-3846 Apr 09 j 01:35	17° $\mathring{M}$ 14'44	9.21022 AU	morning rise	-3841 Dec 26 j 17:54	21° $\mathring{M}$ 39'33	
direct	-3846 Jun 19 j 05:35	13° $\mathring{M}$ 57'48		retrograde	-3840 Apr 09 j 07:42	29° $\mathring{M}$ 11'15	
evening set	-3846 Sep 28 j 12:55	20° $\mathring{M}$ 52'55		opposition	-3840 Jun 19 j 00:08	25° $\mathring{M}$ 47'58	0°20'20
				min. Earth dist.	-3840 Jun 19 j 10:42	25° $\mathring{M}$ 45'58	8.68683 AU
				direct	-3840 Aug 26 j 17:18	22° $\mathring{M}$ 28'25	

Attention, astronomical year style is used: The year -3840 in astronomical counting style is the year 3841 BCE in historical counting style.

evening set	-3840 Dec 04 j 07:01	29° $\mathbb{M}$ 45'21		min. Earth dist.	-3834 Sep 09 j 02:33	16° $\approx$ 36'07	7.92633 AU
	-3840 Dec 06 j 07:24	0° $\mathbb{X}$			-3834 Sep 29 j 04:05	15° $\mathbb{R}$ $\approx$	
				direct	-3834 Nov 14 j 03:52	13° $\approx$ 07'45	
conjunction	-3840 Dec 21 j 04:32	1° $\mathbb{X}$ 49'41	0°01'26		-3834 Dec 29 j 02:37	15° $\approx$	
minimum elong	-3840 Dec 21 j 04:31	1° $\mathbb{X}$ 49'41	0°01'19	evening set	-3833 Feb 25 j 07:59	21° $\approx$ 24'45	
behind sun begin	-3840 Dec 20 j 21:27	1° $\mathbb{X}$ 47'31					
behind sun end	-3840 Dec 21 j 11:35	1° $\mathbb{X}$ 51'50		conjunction	-3833 Mar 15 j 04:17	23° $\approx$ 46'04	-2°-21'-2
max. Earth dist.	-3840 Dec 20 j 17:00	1° $\mathbb{X}$ 46'08	10.61613 AU	minimum elong	-3833 Mar 15 j 04:16	23° $\approx$ 46'04	2°21'10
morning rise	-3839 Jan 07 j 06:26	3° $\mathbb{X}$ 55'26		max. Earth dist.	-3833 Mar 15 j 11:29	23° $\approx$ 48'28	9.89663 AU
desc. node	-3839 Jan 07 j 02:19	3° $\mathbb{X}$ 54'11		morning rise	-3833 Apr 02 j 04:18	26° $\approx$ 08'33	
retrograde	-3839 Apr 22 j 18:28	11° $\mathbb{X}$ 38'39			-3833 May 03 j 17:40	0° $\mathbb{H}$	
opposition	-3839 Jul 02 j 02:26	8° $\mathbb{X}$ 13'40	0°-18'-5	retrograde	-3833 Jul 18 j 19:23	4° $\mathbb{H}$ 45'47	
min. Earth dist.	-3839 Jul 02 j 11:20	8° $\mathbb{X}$ 11'57	8.54176 AU	opposition	-3833 Sep 23 j 23:10	1° $\mathbb{H}$ 14'08	-2°-58'-48
direct	-3839 Sep 08 j 04:21	4° $\mathbb{X}$ 53'05		min. Earth dist.	-3833 Sep 23 j 16:09	1° $\mathbb{H}$ 15'36	7.88011 AU
evening set	-3839 Dec 16 j 23:02	12° $\mathbb{X}$ 18'57			-3833 Oct 09 j 01:42	30° $\mathbb{R}$ $\approx$	
				direct	-3833 Nov 28 j 20:17	27° $\approx$ 45'27	
conjunction	-3838 Jan 03 j 00:25	14° $\mathbb{X}$ 26'22	0°-30'-2		-3832 Jan 17 j 07:53	0° $\mathbb{H}$	
minimum elong	-3838 Jan 03 j 00:23	14° $\mathbb{X}$ 26'21	0°30'12	evening set	-3832 Mar 11 j 20:51	6° $\mathbb{H}$ 08'19	
max. Earth dist.	-3838 Jan 02 j 15:15	14° $\mathbb{X}$ 23'30	10.46845 AU				
morning rise	-3838 Jan 20 j 06:32	16° $\mathbb{X}$ 35'21		conjunction	-3832 Mar 29 j 20:28	8° $\mathbb{H}$ 30'57	-2°-21'-49
retrograde	-3838 May 06 j 14:45	24° $\mathbb{X}$ 30'45		minimum elong	-3832 Mar 29 j 20:29	8° $\mathbb{H}$ 30'58	2°21'54
opposition	-3838 Jul 15 j 12:34	21° $\mathbb{X}$ 04'04	0°-56'-59	max. Earth dist.	-3832 Mar 30 j 07:40	8° $\mathbb{H}$ 34'41	9.86891 AU
min. Earth dist.	-3838 Jul 15 j 19:05	21° $\mathbb{X}$ 02'47	8.39318 AU	morning rise	-3832 Apr 16 j 22:35	10° $\mathbb{H}$ 54'21	
direct	-3838 Sep 21 j 00:24	17° $\mathbb{X}$ 42'17		retrograde	-3832 Aug 01 j 21:08	19° $\mathbb{H}$ 29'59	
evening set	-3838 Dec 30 j 03:45	25° $\mathbb{X}$ 18'22		opposition	-3832 Oct 07 j 15:58	15° $\mathbb{H}$ 58'33	-2°-53'-54
				min. Earth dist.	-3832 Oct 07 j 06:18	16° $\mathbb{H}$ 00'34	7.87164 AU
conjunction	-3837 Jan 16 j 08:59	27° $\mathbb{X}$ 28'59	-1°00'-53	direct	-3832 Dec 12 j 17:02	12° $\mathbb{H}$ 28'54	
minimum elong	-3837 Jan 16 j 08:57	27° $\mathbb{X}$ 28'58	1°01'03	evening set	-3831 Mar 27 j 12:51	20° $\mathbb{H}$ 54'30	
max. Earth dist.	-3837 Jan 16 j 02:16	27° $\mathbb{X}$ 26'51	10.32044 AU				
morning rise	-3837 Feb 02 j 19:15	29° $\mathbb{X}$ 41'16		conjunction	-3831 Apr 14 j 15:08	23° $\mathbb{H}$ 17'36	-2°-13'-19
	-3837 Feb 05 j 07:33	0° $\mathbb{Z}$		minimum elong	-3831 Apr 14 j 15:11	23° $\mathbb{H}$ 17'37	2°13'22
retrograde	-3837 May 20 j 21:51	7° $\mathbb{Z}$ 48'53		max. Earth dist.	-3831 Apr 15 j 05:27	23° $\mathbb{H}$ 22'21	9.87988 AU
opposition	-3837 Jul 29 j 06:45	4° $\mathbb{Z}$ 20'38	-1°-34'-17	morning rise	-3831 May 02 j 18:29	25° $\mathbb{H}$ 41'01	
min. Earth dist.	-3837 Jul 29 j 10:28	4° $\mathbb{Z}$ 19'54	8.24862 AU		-3831 Jun 07 j 14:34	0° $\mathbb{Y}$	
direct	-3837 Oct 04 j 04:43	0° $\mathbb{Z}$ 57'32		retrograde	-3831 Aug 16 j 18:11	4° $\mathbb{Y}$ 10'56	
evening set	-3836 Jan 12 j 22:02	8° $\mathbb{Z}$ 44'37		opposition	-3831 Oct 22 j 06:35	0° $\mathbb{Y}$ 40'11	-2°-37'-36
				min. Earth dist.	-3831 Oct 21 j 19:02	0° $\mathbb{Y}$ 42'37	7.90129 AU
conjunction	-3836 Jan 30 j 07:06	10° $\mathbb{Z}$ 58'24	-1°-29'-20		-3831 Oct 30 j 07:30	30° $\mathbb{R}$ $\mathbb{H}$	
minimum elong	-3836 Jan 30 j 07:03	10° $\mathbb{Z}$ 58'23	1°29'31	direct	-3831 Dec 27 j 15:15	27° $\mathbb{H}$ 09'56	
max. Earth dist.	-3836 Jan 30 j 02:58	10° $\mathbb{Z}$ 57'04	10.18069 AU		-3830 Feb 22 j 09:19	0° $\mathbb{Y}$	
morning rise	-3836 Feb 16 j 21:25	13° $\mathbb{Z}$ 13'55		evening set	-3830 Apr 12 j 03:38	5° $\mathbb{Y}$ 34'52	
retrograde	-3836 Jun 03 j 14:15	21° $\mathbb{Z}$ 32'50					
opposition	-3836 Aug 11 j 08:41	18° $\mathbb{Z}$ 03'13	-2°-7'-35	conjunction	-3830 Apr 30 j 07:36	7° $\mathbb{Y}$ 57'32	-1°-56'-15
min. Earth dist.	-3836 Aug 11 j 09:46	18° $\mathbb{Z}$ 03'00	8.11712 AU	minimum elong	-3830 Apr 30 j 07:40	7° $\mathbb{Y}$ 57'33	1°56'16
direct	-3836 Oct 16 j 18:04	14° $\mathbb{Z}$ 38'38		max. Earth dist.	-3830 Apr 30 j 23:50	8° $\mathbb{Y}$ 02'53	9.92850 AU
evening set	-3835 Jan 26 j 05:43	22° $\mathbb{Z}$ 36'48		morning rise	-3830 May 18 j 11:08	10° $\mathbb{Y}$ 20'01	
				retrograde	-3830 Aug 31 j 08:34	18° $\mathbb{Y}$ 40'51	
conjunction	-3835 Feb 12 j 18:39	24° $\mathbb{Z}$ 53'33	-1°-53'-26	opposition	-3830 Nov 05 j 17:03	15° $\mathbb{Y}$ 11'14	-2°-11'-20
minimum elong	-3835 Feb 12 j 18:35	24° $\mathbb{Z}$ 53'31	1°53'37	min. Earth dist.	-3830 Nov 05 j 04:36	15° $\mathbb{Y}$ 13'50	7.96676 AU
max. Earth dist.	-3835 Feb 12 j 17:50	24° $\mathbb{Z}$ 53'17	10.05825 AU	direct	-3829 Jan 11 j 13:01	11° $\mathbb{Y}$ 40'43	
morning rise	-3835 Mar 02 j 12:42	27° $\mathbb{Z}$ 11'57		evening set	-3829 Apr 27 j 13:15	20° $\mathbb{Y}$ 01'49	
	-3835 Mar 25 j 07:19	0° $\approx$					
retrograde	-3835 Jun 18 j 13:35	5° $\approx$ 40'13		conjunction	-3829 May 15 j 17:37	22° $\mathbb{Y}$ 23'09	-1°-32'-6
opposition	-3835 Aug 25 j 17:17	2° $\approx$ 09'31	-2°-34'-17	minimum elong	-3829 May 15 j 17:41	22° $\mathbb{Y}$ 23'10	1°32'04
min. Earth dist.	-3835 Aug 25 j 15:47	2° $\approx$ 09'50	8.00722 AU	max. Earth dist.	-3829 May 16 j 10:31	22° $\mathbb{Y}$ 28'39	10.01102 AU
	-3835 Sep 23 j 04:58	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-3829 Jun 02 j 20:11	24° $\mathbb{Y}$ 43'51	
direct	-3835 Oct 30 j 17:56	28° $\mathbb{Z}$ 43'27			-3829 Jul 19 j 04:04	0° $\mathbb{B}$	
	-3835 Dec 06 j 17:07	0° $\approx$		retrograde	-3829 Sep 14 j 12:56	2° $\mathbb{B}$ 53'12	
evening set	-3834 Feb 10 j 01:51	6° $\approx$ 51'54			-3829 Nov 12 j 19:47	30° $\mathbb{R}$ $\mathbb{Y}$	
				opposition	-3829 Nov 19 j 21:23	29° $\mathbb{Y}$ 25'03	-1°-37'-28
conjunction	-3834 Feb 27 j 18:32	9° $\approx$ 11'13	-2°-11'-14	min. Earth dist.	-3829 Nov 19 j 09:07	29° $\mathbb{Y}$ 27'35	8.06332 AU
minimum elong	-3834 Feb 27 j 18:30	9° $\approx$ 11'12	2°11'23	direct	-3828 Jan 26 j 08:11	25° $\mathbb{Y}$ 54'40	
max. Earth dist.	-3834 Feb 27 j 21:36	9° $\approx$ 12'13	9.96128 AU		-3828 Apr 06 j 01:34	0° $\mathbb{B}$	
morning rise	-3834 Mar 17 j 15:51	11° $\approx$ 32'00		evening set	-3828 May 11 j 14:58	4° $\mathbb{B}$ 09'24	
	-3834 Apr 14 j 22:43	15° $\approx$					
retrograde	-3834 Jul 03 j 16:11	20° $\approx$ 06'38		conjunction	-3828 May 29 j 18:18	6° $\mathbb{B}$ 28'34	-1°-2'-50
opposition	-3834 Sep 09 j 06:46	16° $\approx$ 35'14	-2°-51'-58	minimum elong	-3828 May 29 j 18:21	6° $\mathbb{B}$ 28'35	1°02'46

# Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 7

Attention, astronomical year style is used: The year -3828 in astronomical counting style is the year 3829 BCE in historical counting style.

max. Earth dist.	-3828 May 30 j 10:20	6°♄33'43	10.12150 AU	conjunction	-3822 Aug 16 j 03:44	22°♄25'24	1°50'32
morning rise	-3828 Jun 16 j 18:37	8°♄46'44		minimum elong	-3822 Aug 16 j 03:41	22°♄25'23	1°50'42
	-3828 Aug 14 j 12:01	15°♄		max. Earth dist.	-3822 Aug 16 j 04:06	22°♄25'30	10.95344 AU
retrograde	-3828 Sep 27 j 05:53	16°♄43'19		morning rise	-3822 Sep 01 j 23:28	24°♄24'07	
	-3828 Nov 10 j 17:50	15°♄			-3822 Oct 30 j 11:58	0°♄	
opposition	-3828 Dec 02 j 18:16	13°♄16'54	0°-58'-44	retrograde	-3822 Dec 09 j 13:15	1°♄20'28	
min. Earth dist.	-3828 Dec 02 j 07:06	13°♄19'11	8.18446 AU		-3821 Jan 19 j 18:08	30°♄	
direct	-3827 Feb 08 j 21:34	9°♄47'01		opposition	-3821 Feb 16 j 10:37	28°♄03'45	2°25'41
	-3827 May 01 j 21:33	15°♄		min. Earth dist.	-3821 Feb 16 j 11:22	28°♄03'36	9.00903 AU
evening set	-3827 May 26 j 06:24	17°♄53'33		direct	-3821 Apr 28 j 21:18	24°♄41'20	
					-3821 Jul 24 j 20:52	0°♄	
conjunction	-3827 Jun 13 j 07:12	20°♄09'54	0°-30'-41	evening set	-3821 Aug 11 j 00:11	1°♄54'24	
minimum elong	-3827 Jun 13 j 07:13	20°♄09'55	0°30'36				
max. Earth dist.	-3827 Jun 13 j 21:07	20°♄14'18	10.25268 AU	conjunction	-3821 Aug 27 j 19:54	3°♄52'02	2°06'57
morning rise	-3827 Jul 01 j 04:05	22°♄24'58		minimum elong	-3821 Aug 27 j 19:51	3°♄52'01	2°07'05
	-3827 Sep 28 j 01:51	0°♄		max. Earth dist.	-3821 Aug 27 j 17:04	3°♄51'12	11.05733 AU
retrograde	-3827 Oct 10 j 12:28	0°♄08'38		morning rise	-3821 Sep 13 j 11:25	5°♄48'27	
	-3827 Oct 23 j 00:10	30°♄		retrograde	-3821 Dec 21 j 02:03	12°♄40'19	
opposition	-3827 Dec 16 j 07:18	26°♄44'04	0°-17'-57	opposition	-3820 Feb 28 j 09:30	9°♄24'21	2°42'22
min. Earth dist.	-3827 Dec 15 j 21:13	26°♄46'06	8.32269 AU	min. Earth dist.	-3820 Feb 28 j 12:03	9°♄23'53	9.10228 AU
direct	-3826 Feb 23 j 03:20	23°♄15'03		direct	-3820 May 10 j 01:54	6°♄03'13	
	-3826 May 30 j 09:56	0°♄		evening set	-3820 Aug 21 j 13:26	13°♄10'01	
asc. node	-3826 Jun 01 j 06:29	0°♄13'13			-3820 Sep 06 j 09:42	15°♄	
evening set	-3826 Jun 09 j 09:56	1°♄12'14					
				conjunction	-3820 Sep 07 j 05:12	15°♄05'41	2°18'09
conjunction	-3826 Jun 27 j 07:00	3°♄25'21	0°02'18	minimum elong	-3820 Sep 07 j 05:10	15°♄05'41	2°18'16
minimum elong	-3826 Jun 27 j 07:00	3°♄25'21	0°02'26	max. Earth dist.	-3820 Sep 07 j 00:30	15°♄04'19	11.13796 AU
behind sun begin	-3826 Jun 26 j 23:45	3°♄23'06		morning rise	-3820 Sep 23 j 17:10	17°♄00'20	
behind sun end	-3826 Jun 27 j 14:15	3°♄27'35		retrograde	-3820 Dec 31 j 11:52	23°♄49'27	
max. Earth dist.	-3826 Jun 27 j 18:34	3°♄28'57	10.39675 AU	opposition	-3819 Mar 11 j 05:39	20°♄33'56	2°52'38
morning rise	-3826 Jul 14 j 23:29	5°♄36'59		min. Earth dist.	-3819 Mar 11 j 10:35	20°♄33'01	9.17052 AU
retrograde	-3826 Oct 23 j 09:20	13°♄08'21		direct	-3819 May 21 j 23:43	17°♄13'53	
opposition	-3826 Dec 29 j 12:11	9°♄45'39	0°22'22	evening set	-3819 Sep 01 j 20:45	24°♄15'38	
min. Earth dist.	-3826 Dec 29 j 03:13	9°♄47'26	8.47013 AU				
direct	-3825 Mar 09 j 00:27	6°♄17'46		conjunction	-3819 Sep 18 j 09:20	26°♄09'54	2°24'01
evening set	-3825 Jun 23 j 01:25	14°♄05'12		minimum elong	-3819 Sep 18 j 09:20	26°♄09'54	2°24'07
				max. Earth dist.	-3819 Sep 18 j 01:54	26°♄07'44	11.19229 AU
conjunction	-3825 Jul 10 j 17:54	16°♄14'54	0°34'08	morning rise	-3819 Oct 04 j 18:51	28°♄03'22	
minimum elong	-3825 Jul 10 j 17:52	16°♄14'53	0°34'17		-3819 Oct 22 j 11:38	0°♄	
max. Earth dist.	-3825 Jul 11 j 03:15	16°♄17'46	10.54587 AU	retrograde	-3818 Jan 11 j 21:38	4°♄51'27	
morning rise	-3825 Jul 28 j 05:15	18°♄23'00		opposition	-3818 Mar 23 j 00:05	1°♄36'03	2°56'25
retrograde	-3825 Nov 04 j 20:37	25°♄43'13		min. Earth dist.	-3818 Mar 23 j 08:03	1°♄34'36	9.21106 AU
opposition	-3824 Jan 11 j 09:14	22°♄22'18	1°00'14		-3818 Apr 14 j 21:04	30°♄	
min. Earth dist.	-3824 Jan 11 j 01:50	22°♄23'45	8.61911 AU	direct	-3818 Jun 02 j 17:55	28°♄16'52	
direct	-3824 Mar 21 j 12:54	18°♄55'44			-3818 Jul 20 j 03:53	0°♄	
evening set	-3824 Jul 05 j 05:02	26°♄33'34		evening set	-3818 Sep 12 j 23:41	5°♄14'57	
conjunction	-3824 Jul 22 j 16:20	28°♄39'50	1°03'30	conjunction	-3818 Sep 29 j 09:59	7°♄08'25	2°24'32
minimum elong	-3824 Jul 22 j 16:18	28°♄39'50	1°03'39	minimum elong	-3818 Sep 29 j 10:00	7°♄08'25	2°24'36
max. Earth dist.	-3824 Jul 22 j 23:29	28°♄42'00	10.69258 AU	max. Earth dist.	-3818 Sep 28 j 23:07	7°♄05'16	11.21808 AU
	-3824 Aug 02 j 17:14	0°♄		morning rise	-3818 Oct 15 j 18:17	9°♄01'20	
morning rise	-3824 Aug 08 j 22:12	0°♄44'30		retrograde	-3817 Jan 23 j 06:01	15°♄50'08	
retrograde	-3824 Nov 16 j 01:28	7°♄55'05		opposition	-3817 Apr 03 j 18:02	12°♄34'31	2°53'46
opposition	-3823 Jan 22 j 23:30	4°♄35'49	1°34'03	min. Earth dist.	-3817 Apr 04 j 04:29	12°♄32'37	9.22207 AU
min. Earth dist.	-3823 Jan 22 j 18:41	4°♄36'44	8.76255 AU	direct	-3817 Jun 14 j 08:38	9°♄16'00	
direct	-3823 Apr 03 j 15:20	1°♄10'40		evening set	-3817 Sep 24 j 00:05	16°♄11'53	
evening set	-3823 Jul 17 j 21:15	8°♄39'23					
				conjunction	-3817 Oct 10 j 09:14	18°♄05'09	2°19'44
conjunction	-3823 Aug 04 j 03:04	10°♄42'24	1°29'13	minimum elong	-3817 Oct 10 j 09:15	18°♄05'09	2°19'47
minimum elong	-3823 Aug 04 j 03:01	10°♄42'23	1°29'23	max. Earth dist.	-3817 Oct 09 j 20:26	18°♄01'26	11.21430 AU
max. Earth dist.	-3823 Aug 04 j 07:16	10°♄43'39	10.83029 AU	morning rise	-3817 Oct 26 j 17:13	19°♄58'08	
morning rise	-3823 Aug 21 j 03:35	12°♄43'53		retrograde	-3816 Feb 03 j 19:08	26°♄49'25	
retrograde	-3823 Nov 27 j 22:44	19°♄46'29		opposition	-3816 Apr 14 j 12:44	23°♄33'13	2°44'50
opposition	-3822 Feb 04 j 07:43	16°♄28'39	2°02'47	min. Earth dist.	-3816 Apr 15 j 00:10	23°♄31'08	9.20340 AU
min. Earth dist.	-3822 Feb 04 j 05:55	16°♄28'59	8.89428 AU	direct	-3816 Jun 24 j 23:24	20°♄15'09	
direct	-3822 Apr 16 j 08:50	13°♄04'54		evening set	-3816 Oct 03 j 23:45	27°♄10'15	
evening set	-3822 Jul 30 j 03:17	20°♄25'18					

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 8

Attention, astronomical year style is used: The year -3816 in astronomical counting style is the year 3817 BCE in historical counting style.

conjunction	-3816 Oct 20 j 08:51	29° $\mathbb{M}$ 03'55	2°09'48	direct	-3810 Sep 02 j 23:22	29° $\mathbb{M}$ 31'42	
minimum elong	-3816 Oct 20 j 08:53	29° $\mathbb{M}$ 03'56	2°09'49		-3810 Sep 26 j 02:08	0° $\mathcal{Z}$	
max. Earth dist.	-3816 Oct 19 j 19:20	28° $\mathbb{M}$ 59'59	11.18157 AU	evening set	-3810 Dec 11 j 15:42	6° $\mathcal{Z}$ 53'58	
	-3816 Oct 28 j 09:33	0° $\mathcal{Z}$					
morning rise	-3816 Nov 05 j 17:26	0° $\mathcal{Z}$ 57'33		conjunction	-3810 Dec 28 j 15:16	9° $\mathcal{Z}$ 00'10	0°-15'-55
retrograde	-3815 Feb 14 j 11:45	7° $\mathcal{Z}$ 52'56		minimum elong	-3810 Dec 28 j 15:15	9° $\mathcal{Z}$ 00'10	0°16'04
opposition	-3815 Apr 26 j 09:38	4° $\mathcal{Z}$ 35'51	2°29'49	behind sun begin	-3810 Dec 28 j 14:34	8° $\mathcal{Z}$ 59'57	
min. Earth dist.	-3815 Apr 26 j 21:47	4° $\mathcal{Z}$ 33'38	9.15628 AU	behind sun end	-3810 Dec 28 j 15:56	9° $\mathcal{Z}$ 00'22	
direct	-3815 Jul 06 j 11:23	1° $\mathcal{Z}$ 17'58		max. Earth dist.	-3810 Dec 28 j 03:58	8° $\mathcal{Z}$ 56'39	10.51563 AU
evening set	-3815 Oct 15 j 00:31	8° $\mathcal{Z}$ 13'42		morning rise	-3809 Jan 14 j 19:37	11° $\mathcal{Z}$ 07'53	
				retrograde	-3809 Apr 30 j 18:38	18° $\mathcal{Z}$ 58'21	
conjunction	-3815 Oct 31 j 10:20	10° $\mathcal{Z}$ 08'19	1°54'57	opposition	-3809 Jul 09 j 21:22	15° $\mathcal{Z}$ 31'44	0°-39'-37
minimum elong	-3815 Oct 31 j 10:23	10° $\mathcal{Z}$ 08'20	1°54'55	min. Earth dist.	-3809 Jul 10 j 05:10	15° $\mathcal{Z}$ 30'13	8.44003 AU
max. Earth dist.	-3815 Oct 30 j 19:35	10° $\mathcal{Z}$ 04'00	11.12144 AU	direct	-3809 Sep 15 j 15:21	12° $\mathcal{Z}$ 09'50	
morning rise	-3815 Nov 16 j 20:40	12° $\mathcal{Z}$ 03'11		evening set	-3809 Dec 24 j 14:32	19° $\mathcal{Z}$ 41'50	
retrograde	-3814 Feb 26 j 08:41	19° $\mathcal{Z}$ 04'16					
opposition	-3814 May 08 j 09:43	15° $\mathcal{Z}$ 46'00	2°09'01	conjunction	-3808 Jan 10 j 17:56	21° $\mathcal{Z}$ 51'12	0°-47'-14
min. Earth dist.	-3814 May 08 j 23:02	15° $\mathcal{Z}$ 43'33	9.08262 AU	minimum elong	-3808 Jan 10 j 17:54	21° $\mathcal{Z}$ 51'11	0°47'24
direct	-3814 Jul 18 j 01:17	12° $\mathcal{Z}$ 28'00		max. Earth dist.	-3808 Jan 10 j 09:17	21° $\mathcal{Z}$ 48'27	10.36702 AU
evening set	-3814 Oct 26 j 04:23	19° $\mathcal{Z}$ 25'55		morning rise	-3808 Jan 28 j 02:35	24° $\mathcal{Z}$ 02'14	
					-3808 Mar 24 j 11:25	0° $\mathcal{Z}$	
conjunction	-3814 Nov 11 j 15:41	21° $\mathcal{Z}$ 22'00	1°35'32	retrograde	-3808 May 13 j 20:38	2° $\mathcal{Z}$ 05'00	
minimum elong	-3814 Nov 11 j 15:44	21° $\mathcal{Z}$ 22'00	1°35'28		-3808 Jul 04 j 11:31	30° $\mathcal{R}$ $\mathcal{Z}$	
max. Earth dist.	-3814 Nov 10 j 23:46	21° $\mathcal{Z}$ 17'17	11.03612 AU	opposition	-3808 Jul 22 j 12:19	28° $\mathcal{Z}$ 36'46	-1°-17'-58
morning rise	-3814 Nov 28 j 04:40	23° $\mathcal{Z}$ 18'37		min. Earth dist.	-3808 Jul 22 j 17:46	28° $\mathcal{Z}$ 35'41	8.29396 AU
	-3813 Feb 14 j 22:08	0° $\mathbb{M}$		direct	-3808 Sep 27 j 16:44	25° $\mathcal{Z}$ 13'35	
retrograde	-3813 Mar 10 j 12:15	0° $\mathbb{M}$ 26'55			-3808 Dec 12 j 13:50	0° $\mathcal{Z}$	
	-3813 Apr 03 j 08:48	30° $\mathcal{R}$ $\mathcal{Z}$		evening set	-3807 Jan 06 j 02:42	2° $\mathcal{Z}$ 56'15	
opposition	-3813 May 20 j 13:55	27° $\mathcal{Z}$ 07'13	1°42'50				
min. Earth dist.	-3813 May 21 j 03:43	27° $\mathcal{Z}$ 04'40	8.98511 AU	conjunction	-3807 Jan 23 j 10:07	5° $\mathcal{Z}$ 08'48	-1°-17'-1
direct	-3813 Jul 29 j 18:06	23° $\mathcal{Z}$ 48'51		minimum elong	-3807 Jan 23 j 10:04	5° $\mathcal{Z}$ 08'47	1°17'12
	-3813 Oct 30 j 06:09	0° $\mathbb{M}$		max. Earth dist.	-3807 Jan 23 j 05:21	5° $\mathcal{Z}$ 07'16	10.22470 AU
evening set	-3813 Nov 06 j 13:01	0° $\mathbb{M}$ 50'30		morning rise	-3807 Feb 09 j 22:48	7° $\mathcal{Z}$ 23'06	
max. Earth dist.	-3813 Nov 22 j 11:31	2° $\mathbb{M}$ 43'59	10.92857 AU	retrograde	-3807 May 28 j 08:43	15° $\mathcal{Z}$ 37'37	
				opposition	-3807 Aug 05 j 10:58	12° $\mathcal{Z}$ 07'58	-1°-53'-24
conjunction	-3813 Nov 23 j 02:42	2° $\mathbb{M}$ 48'32	1°12'00	min. Earth dist.	-3807 Aug 05 j 13:15	12° $\mathcal{Z}$ 07'30	8.15844 AU
minimum elong	-3813 Nov 23 j 02:45	2° $\mathbb{M}$ 48'33	1°11'54	direct	-3807 Oct 11 j 02:39	8° $\mathcal{Z}$ 43'28	
morning rise	-3813 Dec 09 j 18:52	4° $\mathbb{M}$ 47'23		evening set	-3806 Jan 20 j 04:30	16° $\mathcal{Z}$ 37'11	
retrograde	-3812 Mar 21 j 22:50	12° $\mathbb{M}$ 04'27					
opposition	-3812 May 31 j 23:34	8° $\mathbb{M}$ 43'06	1°11'54	conjunction	-3806 Feb 06 j 15:53	18° $\mathcal{Z}$ 52'48	-1°-43'-20
min. Earth dist.	-3812 Jun 01 j 12:21	8° $\mathbb{M}$ 40'43	8.86725 AU	minimum elong	-3806 Feb 06 j 15:50	18° $\mathcal{Z}$ 52'47	1°43'30
direct	-3812 Aug 09 j 14:53	5° $\mathbb{M}$ 24'08		max. Earth dist.	-3806 Feb 06 j 15:17	18° $\mathcal{Z}$ 52'36	10.09665 AU
evening set	-3812 Nov 17 j 04:23	12° $\mathbb{M}$ 31'05		morning rise	-3806 Feb 24 j 08:17	21° $\mathcal{Z}$ 10'06	
				retrograde	-3806 Jun 12 j 05:05	29° $\mathcal{Z}$ 34'56	
conjunction	-3812 Dec 03 j 21:05	14° $\mathbb{M}$ 31'32	0°44'58	opposition	-3806 Aug 19 j 16:48	26° $\mathcal{Z}$ 04'10	-2°-23'-22
minimum elong	-3812 Dec 03 j 21:07	14° $\mathbb{M}$ 31'32	0°44'52	min. Earth dist.	-3806 Aug 19 j 15:26	26° $\mathcal{Z}$ 04'26	8.04136 AU
max. Earth dist.	-3812 Dec 03 j 07:29	14° $\mathbb{M}$ 27'25	10.80262 AU	direct	-3806 Oct 24 j 22:05	22° $\mathcal{Z}$ 38'21	
	-3812 Dec 07 j 19:05	15° $\mathbb{M}$			-3805 Jan 29 j 05:39	0° $\approx$	
morning rise	-3812 Dec 20 j 16:55	16° $\mathbb{M}$ 33'01		evening set	-3805 Feb 03 j 19:12	0° $\approx$ 42'43	
retrograde	-3811 Apr 03 j 20:14	24° $\mathbb{M}$ 00'14					
opposition	-3811 Jun 13 j 15:31	20° $\mathbb{M}$ 37'07	0°37'01	conjunction	-3805 Feb 21 j 10:21	3° $\approx$ 01'04	-2°-4'-10
min. Earth dist.	-3811 Jun 14 j 02:30	20° $\mathbb{M}$ 35'02	8.73341 AU	minimum elong	-3805 Feb 21 j 10:18	3° $\approx$ 01'03	2°04'20
direct	-3811 Aug 21 j 16:45	17° $\mathbb{M}$ 17'22		max. Earth dist.	-3805 Feb 21 j 13:54	3° $\approx$ 02'14	9.99091 AU
evening set	-3811 Nov 29 j 04:45	24° $\mathbb{M}$ 31'12		morning rise	-3805 Mar 11 j 06:06	5° $\approx$ 20'58	
				retrograde	-3805 Jun 27 j 07:04	13° $\approx$ 53'38	
conjunction	-3811 Dec 16 j 00:46	26° $\mathbb{M}$ 34'23	0°15'20	opposition	-3805 Sep 03 j 04:33	10° $\approx$ 22'09	-2°-45'-20
minimum elong	-3811 Dec 16 j 00:46	26° $\mathbb{M}$ 34'24	0°15'12	min. Earth dist.	-3805 Sep 02 j 23:50	10° $\approx$ 23'07	7.95034 AU
behind sun begin	-3811 Dec 15 j 22:16	26° $\mathbb{M}$ 33'38		direct	-3805 Nov 08 j 03:00	6° $\approx$ 55'06	
behind sun end	-3811 Dec 16 j 03:17	26° $\mathbb{M}$ 35'09			-3804 Feb 17 j 18:07	15° $\approx$	
max. Earth dist.	-3811 Dec 15 j 12:08	26° $\mathbb{M}$ 30'31	10.66305 AU	evening set	-3804 Feb 18 j 21:22	15° $\approx$ 08'50	
morning rise	-3810 Jan 02 j 00:44	28° $\mathbb{M}$ 38'53					
	-3810 Jan 13 j 11:38	0° $\mathcal{Z}$		conjunction	-3804 Mar 07 j 16:08	17° $\approx$ 29'27	-2°-17'-42
retrograde	-3810 Apr 17 j 03:07	6° $\mathcal{Z}$ 17'19		minimum elong	-3804 Mar 07 j 16:07	17° $\approx$ 29'26	2°17'51
desc. node	-3810 Jun 20 j 03:44	3° $\mathcal{Z}$ 22'04		max. Earth dist.	-3804 Mar 07 j 23:37	17° $\approx$ 31'55	9.91483 AU
opposition	-3810 Jun 26 j 14:27	2° $\mathcal{Z}$ 52'27	0°00'-39	morning rise	-3804 Mar 25 j 14:54	19° $\approx$ 51'21	
min. Earth dist.	-3810 Jun 26 j 23:55	2° $\mathcal{Z}$ 50'37	8.58890 AU	retrograde	-3804 Jul 11 j 11:43	28° $\approx$ 28'21	
	-3810 Aug 10 j 14:32	30° $\mathcal{R}$ $\mathbb{M}$		opposition	-3804 Sep 16 j 20:11	24° $\approx$ 56'38	-2°-57'-8



## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodiens AG 7-Dez-2017 14:38, page 9

Attention, astronomical year style is used: The year -3804 in astronomical counting style is the year 3805 BCE in historical counting style.

min. Earth dist.	-3804 Sep 16 j 12:44	24° <del>58</del> '11	7.89181 AU	conjunction	-3797 Jun 21 j 14:51	27° <del>8</del> 54'53	0°-12'-8
direct	-3804 Nov 21 j 15:19	21° <del>28</del> '28		minimum elong	-3797 Jun 21 j 14:51	27° <del>8</del> 54'53	0°12'01
evening set	-3803 Mar 05 j 08:06	29° <del>49</del> '22		behind sun begin	-3797 Jun 21 j 09:58	27° <del>8</del> 53'22	
	-3803 Mar 06 j 16:38	0° <del>8</del>		behind sun end	-3797 Jun 21 j 19:45	27° <del>8</del> 56'25	
				max. Earth dist.	-3797 Jun 22 j 03:54	27° <del>8</del> 58'59	10.34211 AU
conjunction	-3803 Mar 23 j 06:15	2° <del>11</del> '35	-2°-22'-33		-3797 Jul 08 j 07:17	0° <del>11</del>	
minimum elong	-3803 Mar 23 j 06:16	2° <del>11</del> '36	2°22'40	morning rise	-3797 Jul 09 j 09:15	0° <del>11</del> 08'00	
max. Earth dist.	-3803 Mar 23 j 17:07	2° <del>15</del> '12	9.87402 AU	retrograde	-3797 Oct 18 j 06:57	7° <del>11</del> 44'44	
morning rise	-3803 Apr 10 j 07:29	4° <del>34</del> '46		asc. node	-3797 Nov 07 j 19:58	7° <del>11</del> 21'41	
retrograde	-3803 Jul 26 j 16:08	13° <del>12</del> '00		opposition	-3797 Dec 24 j 04:00	4° <del>11</del> 21'42	0°04'58
opposition	-3803 Oct 01 j 13:32	9° <del>40</del> '31	-2°-57'-26	min. Earth dist.	-3797 Dec 23 j 19:11	4° <del>11</del> 23'27	8.41254 AU
min. Earth dist.	-3803 Oct 01 j 04:04	9° <del>42</del> '31	7.87010 AU	direct	-3796 Mar 02 j 07:13	0° <del>11</del> 53'46	
direct	-3803 Dec 06 j 10:13	6° <del>11</del> '29		evening set	-3796 Jun 16 j 13:17	8° <del>11</del> 45'37	
evening set	-3802 Mar 20 j 23:40	14° <del>36</del> '33					
				conjunction	-3796 Jul 04 j 07:57	10° <del>11</del> 56'50	0°20'29
conjunction	-3802 Apr 08 j 00:40	16° <del>59</del> '34	-2°-18'-7	minimum elong	-3796 Jul 04 j 07:55	10° <del>11</del> 56'50	0°20'37
minimum elong	-3802 Apr 08 j 00:42	16° <del>59</del> '35	2°18'11	max. Earth dist.	-3796 Jul 04 j 17:45	10° <del>11</del> 59'52	10.48580 AU
max. Earth dist.	-3802 Apr 08 j 14:17	17° <del>04</del> '06	9.87162 AU	morning rise	-3796 Jul 21 j 21:31	13° <del>11</del> 06'30	
morning rise	-3802 Apr 26 j 03:35	19° <del>23</del> '08		retrograde	-3796 Oct 29 j 22:00	20° <del>11</del> 31'39	
retrograde	-3802 Aug 10 j 16:33	27° <del>56</del> '22		opposition	-3795 Jan 05 j 04:55	17° <del>11</del> 10'22	0°44'09
opposition	-3802 Oct 16 j 05:56	24° <del>25</del> '35	-2°-46'-1	min. Earth dist.	-3795 Jan 04 j 22:33	17° <del>11</del> 11'38	8.55723 AU
min. Earth dist.	-3802 Oct 15 j 18:56	24° <del>27</del> '54	7.88691 AU	direct	-3795 Mar 16 j 00:39	13° <del>11</del> 43'31	
direct	-3802 Dec 21 j 08:57	20° <del>55</del> '57		evening set	-3795 Jun 29 j 22:42	21° <del>11</del> 25'50	
evening set	-3801 Apr 05 j 15:51	29° <del>21</del> '46					
	-3801 Apr 10 j 13:18	0° <del>11</del>		conjunction	-3795 Jul 17 j 12:14	23° <del>11</del> 33'38	0°51'07
				minimum elong	-3795 Jul 17 j 12:12	23° <del>11</del> 33'38	0°51'17
conjunction	-3801 Apr 23 j 18:59	1° <del>44</del> '42	-2°-4'-40	max. Earth dist.	-3795 Jul 17 j 18:30	23° <del>11</del> 35'33	10.62961 AU
minimum elong	-3801 Apr 23 j 19:03	1° <del>44</del> '43	2°04'42	morning rise	-3795 Aug 03 j 20:37	25° <del>11</del> 39'51	
max. Earth dist.	-3801 Apr 24 j 10:39	1° <del>49</del> '53	9.90790 AU		-3795 Sep 13 j 01:02	0° <del>11</del>	
morning rise	-3801 May 11 j 22:41	4° <del>07</del> '44		retrograde	-3795 Nov 11 j 05:05	2° <del>11</del> 54'49	
retrograde	-3801 Aug 25 j 10:08	12° <del>33</del> '07			-3794 Jan 12 j 13:24	30° <del>11</del>	
opposition	-3801 Oct 30 j 18:53	9° <del>03</del> '26	-2°-23'-51	opposition	-3794 Jan 17 j 22:39	29° <del>11</del> 35'04	1°19'57
min. Earth dist.	-3801 Oct 30 j 06:40	9° <del>05</del> '59	7.94102 AU	min. Earth dist.	-3794 Jan 17 j 18:17	29° <del>11</del> 35'54	8.69906 AU
direct	-3800 Jan 05 j 08:54	5° <del>33</del> '30		direct	-3794 Mar 29 j 09:00	26° <del>11</del> 09'23	
evening set	-3800 Apr 20 j 04:38	13° <del>56</del> '41			-3794 Jun 08 j 22:18	0° <del>11</del>	
				evening set	-3794 Jul 12 j 20:12	3° <del>11</del> 42'25	
conjunction	-3800 May 08 j 08:51	16° <del>18</del> '38	-1°-43'-23				
minimum elong	-3800 May 08 j 08:55	16° <del>18</del> '39	1°43'22	conjunction	-3794 Jul 30 j 04:24	5° <del>11</del> 46'55	1°18'34
max. Earth dist.	-3800 May 09 j 01:31	16° <del>24</del> '05	9.97990 AU	minimum elong	-3794 Jul 30 j 04:21	5° <del>11</del> 46'54	1°18'44
morning rise	-3800 May 26 j 12:09	18° <del>40</del> '12		max. Earth dist.	-3794 Jul 30 j 07:36	5° <del>11</del> 47'53	10.76714 AU
retrograde	-3800 Sep 07 j 18:07	26° <del>54</del> '48		morning rise	-3794 Aug 16 j 07:28	7° <del>11</del> 49'52	
opposition	-3800 Nov 13 j 02:20	23° <del>26</del> '32	-1°-52'-59	retrograde	-3794 Nov 23 j 05:24	14° <del>11</del> 56'11	
min. Earth dist.	-3800 Nov 12 j 13:32	23° <del>29</del> '11	8.02798 AU	opposition	-3793 Jan 30 j 09:42	11° <del>11</del> 37'43	1°51'03
direct	-3799 Jan 19 j 06:52	19° <del>56</del> '39		min. Earth dist.	-3793 Jan 30 j 07:02	11° <del>11</del> 38'13	8.83171 AU
evening set	-3799 May 05 j 10:31	28° <del>14</del> '18		direct	-3793 Apr 11 j 07:51	8° <del>11</del> 13'16	
	-3799 May 19 j 04:09	0° <del>11</del>		evening set	-3793 Jul 25 j 06:59	15° <del>11</del> 37'38	
conjunction	-3799 May 23 j 14:25	0° <del>34</del> '23	-1°-16'-6	conjunction	-3793 Aug 11 j 09:57	17° <del>11</del> 39'07	1°41'55
minimum elong	-3799 May 23 j 14:28	0° <del>34</del> '24	1°16'02	minimum elong	-3793 Aug 11 j 09:54	17° <del>11</del> 39'06	1°42'05
max. Earth dist.	-3799 May 24 j 06:52	0° <del>39</del> '43	10.08160 AU	max. Earth dist.	-3793 Aug 11 j 11:00	17° <del>11</del> 39'26	10.89250 AU
morning rise	-3799 Jun 10 j 15:55	2° <del>53</del> '39		morning rise	-3793 Aug 28 j 07:48	19° <del>11</del> 39'07	
retrograde	-3799 Sep 21 j 15:40	10° <del>55</del> '48		retrograde	-3793 Dec 04 j 23:49	26° <del>11</del> 38'27	
opposition	-3799 Nov 27 j 02:41	7° <del>29</del> '09	-1°-16'-2	opposition	-3792 Feb 11 j 15:03	23° <del>11</del> 21'02	2°16'36
min. Earth dist.	-3799 Nov 26 j 14:10	7° <del>31</del> '44	8.14087 AU	min. Earth dist.	-3792 Feb 11 j 14:55	23° <del>11</del> 21'04	8.94970 AU
direct	-3798 Feb 02 j 22:43	3° <del>59</del> '38		direct	-3792 Apr 22 j 22:40	19° <del>11</del> 57'46	
evening set	-3798 May 20 j 06:46	12° <del>09</del> '41		evening set	-3792 Aug 05 j 08:08	27° <del>11</del> 14'24	
conjunction	-3798 Jun 07 j 08:54	14° <del>27</del> '13	0°-44'-57	conjunction	-3792 Aug 22 j 06:06	29° <del>11</del> 13'13	2°00'32
minimum elong	-3798 Jun 07 j 08:56	14° <del>27</del> '14	0°44'52	minimum elong	-3792 Aug 22 j 06:03	29° <del>11</del> 13'12	2°00'41
max. Earth dist.	-3798 Jun 08 j 00:06	14° <del>32</del> '04	10.20504 AU	max. Earth dist.	-3792 Aug 22 j 04:29	29° <del>11</del> 12'44	11.00080 AU
	-3798 Jun 11 j 15:37	15° <del>3</del>			-3792 Aug 28 j 20:53	0° <del>11</del>	
morning rise	-3798 Jun 25 j 07:22	16° <del>43</del> '35		morning rise	-3792 Sep 07 j 23:19	1° <del>11</del> 10'43	
retrograde	-3798 Oct 05 j 04:14	24° <del>32</del> '50		retrograde	-3792 Dec 15 j 13:52	8° <del>11</del> 04'48	
opposition	-3798 Dec 10 j 19:17	21° <del>07</del> '58	0°-35'-50	opposition	-3791 Feb 22 j 16:04	4° <del>11</del> 48'10	2°36'04
min. Earth dist.	-3798 Dec 10 j 08:10	21° <del>08</del> '13	8.27154 AU	min. Earth dist.	-3791 Feb 22 j 18:57	4° <del>11</del> 47'37	9.04863 AU
direct	-3797 Feb 17 j 06:56	17° <del>39</del> '07		direct	-3791 May 05 j 05:25	1° <del>11</del> 26'01	
evening set	-3797 Jun 03 j 15:50	25° <del>40</del> '21		evening set	-3791 Aug 17 j 00:49	8° <del>11</del> 35'55	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 10

Attention, astronomical year style is used: The year -3791 in astronomical counting style is the year 3792 BCE in historical counting style.

conjunction	-3791 Sep 02 j 18:15	10° $\Omega$ 32'33	2°14'03	evening set	-3785 Oct 21 j 19:05	14° $\Omega$ 51'46	
minimum elong	-3791 Sep 02 j 18:13	10° $\Omega$ 32'33	2°14'10				
max. Earth dist.	-3791 Sep 02 j 13:15	10° $\Omega$ 31'05	11.08825 AU	conjunction	-3785 Nov 07 j 05:46	16° $\Omega$ 47'12	1°44'26
morning rise	-3791 Sep 19 j 07:48	12° $\Omega$ 28'05		minimum elong	-3785 Nov 07 j 05:49	16° $\Omega$ 47'13	1°44'23
	-3791 Oct 12 j 12:37	15° $\Omega$		max. Earth dist.	-3785 Nov 06 j 16:35	16° $\Omega$ 43'19	11.07261 AU
retrograde	-3791 Dec 26 j 23:10	19° $\Omega$ 18'42		morning rise	-3785 Nov 23 j 17:25	18° $\Omega$ 43'01	
opposition	-3790 Mar 06 j 13:35	16° $\Omega$ 02'31	2°49'10	retrograde	-3784 Mar 04 j 16:53	25° $\Omega$ 48'04	
min. Earth dist.	-3790 Mar 06 j 18:54	16° $\Omega$ 01'32	9.12507 AU	opposition	-3784 May 14 j 17:52	22° $\Omega$ 29'00	1°54'43
	-3790 Mar 20 j 21:25	15° $\mathcal{R}\Omega$		min. Earth dist.	-3784 May 15 j 05:20	22° $\Omega$ 26'53	9.02982 AU
direct	-3790 May 17 j 07:06	12° $\Omega$ 41'24		direct	-3784 Jul 24 j 03:44	19° $\Omega$ 10'54	
	-3790 Jul 11 j 15:32	15° $\Omega$		evening set	-3784 Nov 01 j 01:29	26° $\Omega$ 10'47	
evening set	-3790 Aug 28 j 10:46	19° $\Omega$ 45'47					
conjunction	-3790 Sep 14 j 00:38	21° $\Omega$ 40'47	2°22'15	conjunction	-3784 Nov 17 j 14:06	28° $\Omega$ 07'54	1°22'34
minimum elong	-3790 Sep 14 j 00:37	21° $\Omega$ 40'46	2°22'20	minimum elong	-3784 Nov 17 j 14:09	28° $\Omega$ 07'55	1°22'30
max. Earth dist.	-3790 Sep 13 j 17:03	21° $\Omega$ 38'34	11.15201 AU	max. Earth dist.	-3784 Nov 17 j 00:32	28° $\Omega$ 03'52	10.98044 AU
morning rise	-3790 Sep 30 j 11:23	23° $\Omega$ 34'53					
	-3790 Dec 16 j 11:59	0° $\mathcal{M}$		morning rise	-3784 Dec 04 j 04:41	0° $\mathcal{M}$ 05'43	
retrograde	-3789 Jan 07 j 09:13	0° $\mathcal{M}$ 23'45		retrograde	-3783 Mar 17 j 00:31	7° $\mathcal{M}$ 18'44	
	-3789 Jan 29 j 12:59	30° $\mathcal{R}\Omega$		opposition	-3783 May 27 j 01:09	3° $\mathcal{M}$ 58'21	1°25'41
opposition	-3789 Mar 18 j 08:34	27° $\Omega$ 07'44	2°55'46	min. Earth dist.	-3783 May 27 j 12:40	3° $\mathcal{M}$ 56'12	8.92652 AU
min. Earth dist.	-3789 Mar 18 j 15:21	27° $\Omega$ 06'29	9.17644 AU	direct	-3783 Aug 04 j 20:39	0° $\mathcal{M}$ 39'59	
direct	-3789 May 29 j 04:35	23° $\Omega$ 47'33		evening set	-3783 Nov 12 j 13:52	7° $\mathcal{M}$ 44'21	
	-3789 Sep 01 j 13:42	0° $\mathcal{M}$					
evening set	-3789 Sep 08 j 15:33	0° $\mathcal{M}$ 47'41		conjunction	-3783 Nov 29 j 05:02	9° $\mathcal{M}$ 43'37	0°56'55
conjunction	-3789 Sep 25 j 02:55	2° $\mathcal{M}$ 41'38	2°25'04	minimum elong	-3783 Nov 29 j 05:05	9° $\mathcal{M}$ 43'38	0°56'49
minimum elong	-3789 Sep 25 j 02:55	2° $\mathcal{M}$ 41'38	2°25'08	max. Earth dist.	-3783 Nov 28 j 15:18	9° $\mathcal{M}$ 39'29	10.86817 AU
max. Earth dist.	-3789 Sep 24 j 18:01	2° $\mathcal{M}$ 39'03	11.18996 AU	morning rise	-3783 Dec 15 j 23:17	11° $\mathcal{M}$ 43'51	
morning rise	-3789 Oct 11 j 11:42	4° $\mathcal{M}$ 34'54					
retrograde	-3788 Jan 18 j 18:41	11° $\mathcal{M}$ 23'42		retrograde	-3782 Mar 29 j 17:01	19° $\mathcal{M}$ 06'14	
opposition	-3788 Mar 29 j 02:44	8° $\mathcal{M}$ 07'35	2°55'53	opposition	-3782 Jun 08 j 14:17	15° $\mathcal{M}$ 44'22	0°52'20
min. Earth dist.	-3788 Mar 29 j 10:54	8° $\mathcal{M}$ 06'06	9.20104 AU	min. Earth dist.	-3782 Jun 09 j 01:34	15° $\mathcal{M}$ 42'15	8.80509 AU
direct	-3788 Jun 08 j 19:54	4° $\mathcal{M}$ 48'13					
evening set	-3788 Sep 18 j 16:55	11° $\mathcal{M}$ 45'25		direct	-3782 Aug 16 j 20:42	12° $\mathcal{M}$ 25'27	
					-3782 Oct 11 j 23:39	15° $\mathcal{M}$	
conjunction	-3788 Oct 05 j 02:39	13° $\mathcal{M}$ 38'53	2°22'32	evening set	-3782 Nov 24 j 10:08	19° $\mathcal{M}$ 35'51	
minimum elong	-3788 Oct 05 j 02:40	13° $\mathcal{M}$ 38'53	2°22'35				
max. Earth dist.	-3788 Oct 04 j 16:07	13° $\mathcal{M}$ 35'50	11.20090 AU	conjunction	-3782 Dec 11 j 04:28	21° $\mathcal{M}$ 37'40	0°28'16
morning rise	-3788 Oct 21 j 10:36	15° $\mathcal{M}$ 31'55		minimum elong	-3782 Dec 11 j 04:29	21° $\mathcal{M}$ 37'40	0°28'09
retrograde	-3787 Jan 29 j 06:22	22° $\mathcal{M}$ 22'21		max. Earth dist.	-3782 Dec 10 j 15:59	21° $\mathcal{M}$ 33'51	10.73976 AU
opposition	-3787 Apr 09 j 21:17	19° $\mathcal{M}$ 05'54	2°49'37	morning rise	-3782 Dec 28 j 02:37	23° $\mathcal{M}$ 40'41	
min. Earth dist.	-3787 Apr 10 j 07:31	19° $\mathcal{M}$ 04'02	9.19820 AU		-3781 Mar 03 j 18:58	0° $\mathcal{M}$	
direct	-3787 Jun 20 j 09:55	15° $\mathcal{M}$ 47'09		retrograde	-3781 Apr 11 j 18:20	1° $\mathcal{M}$ 13'37	
evening set	-3787 Sep 29 j 16:51	22° $\mathcal{M}$ 42'50			-3781 May 21 j 11:39	30° $\mathcal{R}\mathcal{M}$	
				opposition	-3781 Jun 21 j 10:02	27° $\mathcal{M}$ 50'08	0°15'43
conjunction	-3787 Oct 16 j 01:50	24° $\mathcal{M}$ 36'23	2°14'46	min. Earth dist.	-3781 Jun 21 j 20:00	27° $\mathcal{M}$ 48'15	8.67010 AU
minimum elong	-3787 Oct 16 j 01:52	24° $\mathcal{M}$ 36'24	2°14'48	direct	-3781 Aug 29 j 01:46	24° $\mathcal{M}$ 30'28	
max. Earth dist.	-3787 Oct 15 j 13:00	24° $\mathcal{M}$ 32'39	11.18460 AU		-3781 Nov 21 j 07:34	0° $\mathcal{M}$	
morning rise	-3787 Nov 01 j 10:12	26° $\mathcal{M}$ 29'48		desc. node	-3781 Nov 24 j 02:54	0° $\mathcal{M}$ 19'15	
	-3787 Dec 04 j 17:22	0° $\Omega$		evening set	-3781 Dec 06 j 16:04	1° $\mathcal{M}$ 48'23	
retrograde	-3786 Feb 09 j 19:33	3° $\Omega$ 23'29					
opposition	-3786 Apr 21 j 17:05	0° $\Omega$ 06'24	2°37'08	conjunction	-3781 Dec 23 j 14:01	3° $\mathcal{M}$ 53'01	0°-2'-29
min. Earth dist.	-3786 Apr 22 j 04:49	0° $\Omega$ 04'16	9.16803 AU	minimum elong	-3781 Dec 23 j 14:01	3° $\mathcal{M}$ 53'01	0°02'38
	-3786 Apr 23 j 04:11	30° $\mathcal{R}\mathcal{M}$		behind sun begin	-3781 Dec 23 j 06:57	3° $\mathcal{M}$ 50'52	
direct	-3786 Jul 01 j 22:08	26° $\mathcal{M}$ 48'05		behind sun end	-3781 Dec 23 j 21:04	3° $\mathcal{M}$ 55'11	
	-3786 Sep 05 j 01:42	0° $\Omega$		max. Earth dist.	-3781 Dec 23 j 03:53	3° $\mathcal{M}$ 49'55	10.60016 AU
evening set	-3786 Oct 10 j 16:55	3° $\Omega$ 43'41		morning rise	-3780 Jan 09 j 16:13	5° $\mathcal{M}$ 59'05	
conjunction	-3786 Oct 27 j 02:17	5° $\Omega$ 37'54	2°01'58	retrograde	-3780 Apr 24 j 05:35	13° $\mathcal{M}$ 43'32	
minimum elong	-3786 Oct 27 j 02:20	5° $\Omega$ 37'55	2°01'58	opposition	-3780 Jul 03 j 13:13	10° $\mathcal{M}$ 18'20	0°-22'-50
max. Earth dist.	-3786 Oct 26 j 12:42	5° $\Omega$ 33'56	11.14145 AU	min. Earth dist.	-3780 Jul 03 j 20:48	10° $\mathcal{M}$ 16'52	8.52692 AU
morning rise	-3786 Nov 12 j 11:56	7° $\Omega$ 32'15		direct	-3780 Sep 09 j 14:21	6° $\mathcal{M}$ 57'40	
retrograde	-3785 Feb 21 j 14:38	14° $\Omega$ 30'51		evening set	-3780 Dec 18 j 09:18	14° $\mathcal{M}$ 24'27	
opposition	-3785 May 03 j 15:32	11° $\Omega$ 12'53	2°18'42				
min. Earth dist.	-3785 May 04 j 03:27	11° $\Omega$ 10'42	9.11130 AU	conjunction	-3779 Jan 04 j 10:59	16° $\mathcal{M}$ 32'09	0°-33'-51
direct	-3785 Jul 13 j 12:54	7° $\Omega$ 54'46		minimum elong	-3779 Jan 04 j 10:58	16° $\mathcal{M}$ 32'09	0°34'01
				max. Earth dist.	-3779 Jan 04 j 02:48	16° $\mathcal{M}$ 29'35	10.45493 AU
				morning rise	-3779 Jan 21 j 17:26	18° $\mathcal{M}$ 41'25	
				retrograde	-3779 May 08 j 04:06	26° $\mathcal{M}$ 37'51	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 11

Attention, astronomical year style is used: The year -3779 in astronomical counting style is the year 3780 BCE in historical counting style.

opposition	-3779 Jul 17 j 00:08	23° $\text{♁}$ 11'00	-1°-1'-37	min. Earth dist.	-3773 Oct 09 j 17:28	18° $\text{♁}$ 10'34	7.87930 AU
min. Earth dist.	-3779 Jul 17 j 05:32	23° $\text{♁}$ 09'56	8.38134 AU	direct	-3773 Dec 15 j 04:40	14° $\text{♁}$ 38'50	
direct	-3779 Sep 22 j 10:24	19° $\text{♁}$ 49'07		evening set	-3772 Mar 29 j 02:17	23° $\text{♁}$ 03'57	
evening set	-3779 Dec 31 j 15:16	27° $\text{♁}$ 25'59					
				conjunction	-3772 Apr 16 j 04:43	25° $\text{♁}$ 26'56	-2°-11'-49
conjunction	-3778 Jan 17 j 20:42	29° $\text{♁}$ 36'50	-1°-4'-28	minimum elong	-3772 Apr 16 j 04:46	25° $\text{♁}$ 26'57	2°11'51
minimum elong	-3778 Jan 17 j 20:40	29° $\text{♁}$ 36'49	1°04'38	max. Earth dist.	-3772 Apr 16 j 19:30	25° $\text{♁}$ 31'50	9.88899 AU
max. Earth dist.	-3778 Jan 17 j 14:09	29° $\text{♁}$ 34'44	10.31022 AU	morning rise	-3772 May 04 j 08:02	27° $\text{♁}$ 50'11	
	-3778 Jan 20 j 21:25	0° $\text{♁}$			-3772 May 21 j 11:43	0° $\text{♁}$	
morning rise	-3778 Feb 04 j 07:22	1° $\text{♁}$ 49'22		retrograde	-3772 Aug 18 j 06:30	6° $\text{♁}$ 19'00	
retrograde	-3778 May 22 j 12:02	9° $\text{♁}$ 57'42		opposition	-3772 Oct 23 j 17:42	2° $\text{♁}$ 48'25	-2°-35'-7
opposition	-3778 Jul 30 j 18:48	6° $\text{♁}$ 29'21	-1°-38'-30	min. Earth dist.	-3772 Oct 23 j 06:11	2° $\text{♁}$ 50'50	7.91160 AU
min. Earth dist.	-3778 Jul 30 j 22:11	6° $\text{♁}$ 28'40	8.24015 AU		-3772 Dec 01 j 18:43	30° $\text{♁}$	
direct	-3778 Oct 05 j 14:45	3° $\text{♁}$ 06'06		direct	-3772 Dec 29 j 03:08	29° $\text{♁}$ 18'13	
evening set	-3777 Jan 14 j 10:29	10° $\text{♁}$ 53'54			-3771 Jan 25 j 11:05	0° $\text{♁}$	
				evening set	-3771 Apr 13 j 16:25	7° $\text{♁}$ 42'29	
conjunction	-3777 Jan 31 j 19:46	13° $\text{♁}$ 07'51	-1°-32'-28				
minimum elong	-3777 Jan 31 j 19:43	13° $\text{♁}$ 07'50	1°32'38	conjunction	-3771 May 01 j 20:24	10° $\text{♁}$ 04'57	-1°-53'-54
max. Earth dist.	-3777 Jan 31 j 15:41	13° $\text{♁}$ 06'32	10.17379 AU	minimum elong	-3771 May 01 j 20:28	10° $\text{♁}$ 04'58	1°53'54
morning rise	-3777 Feb 18 j 10:25	15° $\text{♁}$ 23'32		max. Earth dist.	-3771 May 02 j 12:25	10° $\text{♁}$ 10'13	9.93998 AU
retrograde	-3777 Jun 06 j 03:52	23° $\text{♁}$ 42'55		morning rise	-3771 May 19 j 23:54	12° $\text{♁}$ 27'14	
opposition	-3777 Aug 13 j 21:08	20° $\text{♁}$ 13'16	-2°-11'-5	retrograde	-3771 Sep 01 j 19:04	20° $\text{♁}$ 46'45	
min. Earth dist.	-3777 Aug 13 j 22:18	20° $\text{♁}$ 13'01	8.11191 AU	opposition	-3771 Nov 07 j 03:22	17° $\text{♁}$ 17'20	-2°-7'-55
direct	-3777 Oct 19 j 06:08	16° $\text{♁}$ 48'35		min. Earth dist.	-3771 Nov 06 j 15:33	17° $\text{♁}$ 19'48	7.97908 AU
evening set	-3776 Jan 28 j 18:50	24° $\text{♁}$ 47'19		direct	-3770 Jan 13 j 01:02	13° $\text{♁}$ 46'54	
				evening set	-3770 Apr 29 j 01:09	22° $\text{♁}$ 07'10	
conjunction	-3776 Feb 15 j 08:01	27° $\text{♁}$ 04'10	-1°-55'-52				
minimum elong	-3776 Feb 15 j 07:58	27° $\text{♁}$ 04'09	1°56'02	conjunction	-3770 May 17 j 05:22	24° $\text{♁}$ 28'14	-1°-29'-5
max. Earth dist.	-3776 Feb 15 j 07:46	27° $\text{♁}$ 04'05	10.05461 AU	minimum elong	-3770 May 17 j 05:26	24° $\text{♁}$ 28'15	1°29'03
morning rise	-3776 Mar 04 j 02:19	29° $\text{♁}$ 22'40		max. Earth dist.	-3770 May 17 j 21:25	24° $\text{♁}$ 33'27	10.02412 AU
	-3776 Mar 08 j 23:35	0° $\text{♁}$		morning rise	-3770 Jun 04 j 07:50	26° $\text{♁}$ 48'41	
retrograde	-3776 Jun 20 j 02:00	7° $\text{♁}$ 51'09			-3770 Jun 30 j 15:41	0° $\text{♁}$	
opposition	-3776 Aug 27 j 05:54	4° $\text{♁}$ 20'27	-2°-36'-47	retrograde	-3770 Sep 15 j 21:23	4° $\text{♁}$ 56'40	
min. Earth dist.	-3776 Aug 27 j 04:15	4° $\text{♁}$ 20'47	8.00532 AU	opposition	-3770 Nov 21 j 06:50	1° $\text{♁}$ 28'44	-1°-33'-23
direct	-3776 Nov 01 j 07:39	0° $\text{♁}$ 54'20		min. Earth dist.	-3770 Nov 20 j 19:18	1° $\text{♁}$ 31'07	8.07691 AU
evening set	-3775 Feb 11 j 15:29	9° $\text{♁}$ 03'08			-3770 Dec 09 j 18:46	30° $\text{♁}$	
				direct	-3769 Jan 27 j 19:11	27° $\text{♁}$ 58'26	
conjunction	-3775 Mar 01 j 08:31	11° $\text{♁}$ 22'31	-2°-12'-47		-3769 Mar 17 j 06:00	0° $\text{♁}$	
minimum elong	-3775 Mar 01 j 08:29	11° $\text{♁}$ 22'30	2°12'55	evening set	-3769 May 14 j 01:41	6° $\text{♁}$ 12'13	
max. Earth dist.	-3775 Mar 01 j 12:33	11° $\text{♁}$ 23'51	9.96098 AU				
morning rise	-3775 Mar 19 j 05:58	13° $\text{♁}$ 43'20		conjunction	-3769 Jun 01 j 04:45	8° $\text{♁}$ 31'06	0°-59'-25
	-3775 Mar 29 j 06:36	15° $\text{♁}$		minimum elong	-3769 Jun 01 j 04:48	8° $\text{♁}$ 31'07	0°59'21
retrograde	-3775 Jul 05 j 04:00	22° $\text{♁}$ 17'50		max. Earth dist.	-3769 Jun 01 j 19:42	8° $\text{♁}$ 35'54	10.13544 AU
opposition	-3775 Sep 10 j 19:16	18° $\text{♁}$ 46'29	-2°-53'-16	morning rise	-3769 Jun 19 j 04:56	10° $\text{♁}$ 48'58	
min. Earth dist.	-3775 Sep 10 j 14:31	18° $\text{♁}$ 47'28	7.92777 AU		-3769 Jul 25 j 06:34	15° $\text{♁}$	
direct	-3775 Nov 15 j 16:43	15° $\text{♁}$ 19'00		retrograde	-3769 Sep 29 j 13:36	18° $\text{♁}$ 44'16	
evening set	-3774 Feb 26 j 21:57	23° $\text{♁}$ 36'04		opposition	-3769 Dec 05 j 02:44	15° $\text{♁}$ 18'02	0°-54'-19
				min. Earth dist.	-3769 Dec 04 j 15:54	15° $\text{♁}$ 20'14	8.19849 AU
conjunction	-3774 Mar 16 j 18:35	25° $\text{♁}$ 57'25	-2°-21'-35		-3769 Dec 08 j 19:09	15° $\text{♁}$	
minimum elong	-3774 Mar 16 j 18:34	25° $\text{♁}$ 57'25	2°21'42	direct	-3768 Feb 11 j 07:35	11° $\text{♁}$ 48'14	
max. Earth dist.	-3774 Mar 17 j 02:53	26° $\text{♁}$ 00'10	9.89965 AU		-3768 Apr 13 j 20:10	15° $\text{♁}$	
morning rise	-3774 Apr 03 j 18:39	28° $\text{♁}$ 19'52		evening set	-3768 May 27 j 15:52	19° $\text{♁}$ 53'47	
	-3774 Apr 16 j 20:55	0° $\text{♁}$					
retrograde	-3774 Jul 20 j 07:53	6° $\text{♁}$ 56'37		conjunction	-3768 Jun 14 j 16:25	22° $\text{♁}$ 09'51	0°-27'-5
opposition	-3774 Sep 25 j 11:23	3° $\text{♁}$ 25'02	-2°-58'-47	minimum elong	-3768 Jun 14 j 16:26	22° $\text{♁}$ 09'51	0°27'00
min. Earth dist.	-3774 Sep 25 j 03:35	3° $\text{♁}$ 26'40	7.88476 AU	max. Earth dist.	-3768 Jun 15 j 05:31	22° $\text{♁}$ 14'00	10.26661 AU
	-3774 Nov 22 j 10:32	30° $\text{♁}$		morning rise	-3768 Jul 02 j 13:03	24° $\text{♁}$ 24'37	
direct	-3774 Nov 30 j 08:16	29° $\text{♁}$ 56'22			-3768 Aug 23 j 18:14	0° $\text{♁}$	
	-3774 Dec 08 j 06:05	0° $\text{♁}$		retrograde	-3768 Oct 11 j 19:13	2° $\text{♁}$ 07'06	
evening set	-3773 Mar 14 j 10:42	8° $\text{♁}$ 19'03			-3768 Dec 01 j 04:56	30° $\text{♁}$	
				opposition	-3768 Dec 17 j 14:49	28° $\text{♁}$ 42'40	0°-13'-28
conjunction	-3773 Apr 01 j 10:34	10° $\text{♁}$ 41'38	-2°-21'-18	min. Earth dist.	-3768 Dec 17 j 04:37	28° $\text{♁}$ 44'43	8.33624 AU
minimum elong	-3773 Apr 01 j 10:35	10° $\text{♁}$ 41'38	2°21'23	direct	-3767 Feb 24 j 12:41	25° $\text{♁}$ 13'44	
max. Earth dist.	-3773 Apr 01 j 22:42	10° $\text{♁}$ 45'40	9.87510 AU	asc. node	-3767 Apr 21 j 23:01	27° $\text{♁}$ 49'09	
morning rise	-3773 Apr 19 j 12:39	13° $\text{♁}$ 04'56			-3767 May 14 j 09:32	0° $\text{♁}$	
retrograde	-3773 Aug 04 j 09:54	21° $\text{♁}$ 39'44		evening set	-3767 Jun 10 j 18:19	3° $\text{♁}$ 10'00	
opposition	-3773 Oct 10 j 03:43	18° $\text{♁}$ 08'25	-2°-52'-35				

Attention, astronomical year style is used: The year -3767 in astronomical counting style is the year 3768 BCE in historical counting style.

conjunction	-3767 Jun 28 j 15:06	5°II22'50	0°05'53	conjunction	-3761 Sep 09 j 09:20	16°Ω56'02	2°19'06
minimum elong	-3767 Jun 28 j 15:06	5°II22'50	0°06'01	minimum elong	-3761 Sep 09 j 09:18	16°Ω56'02	2°19'12
behind sun begin	-3767 Jun 28 j 08:13	5°II20'42		max. Earth dist.	-3761 Sep 09 j 04:24	16°Ω54'36	11.13567 AU
behind sun end	-3767 Jun 28 j 22:00	5°II24'57		morning rise	-3761 Sep 25 j 21:05	18°Ω50'40	
max. Earth dist.	-3767 Jun 29 j 02:30	5°II26'22	10.40974 AU	retrograde	-3760 Jan 02 j 17:33	25°Ω40'04	
morning rise	-3767 Jul 16 j 07:09	7°II34'10		opposition	-3760 Mar 12 j 11:02	22°Ω24'30	2°53'25
retrograde	-3767 Oct 24 j 14:51	15°II04'32		min. Earth dist.	-3760 Mar 12 j 16:50	22°Ω23'26	9.16691 AU
opposition	-3767 Dec 30 j 18:56	11°II41'57	0°26'42	direct	-3760 May 23 j 05:02	19°Ω04'27	
min. Earth dist.	-3767 Dec 30 j 10:00	11°II43'43	8.48238 AU	evening set	-3760 Sep 03 j 01:10	26°Ω06'19	
direct	-3766 Mar 10 j 09:11	8°II14'08					
evening set	-3766 Jun 24 j 08:44	16°II00'45		conjunction	-3760 Sep 19 j 13:29	28°Ω00'37	2°24'21
				minimum elong	-3760 Sep 19 j 13:29	28°Ω00'37	2°24'25
conjunction	-3766 Jul 12 j 00:52	18°II10'10	0°37'31	max. Earth dist.	-3760 Sep 19 j 05:06	27°Ω58'11	11.18741 AU
minimum elong	-3766 Jul 12 j 00:51	18°II10'09	0°37'40	morning rise	-3760 Oct 05 j 23:00	29°Ω54'08	
max. Earth dist.	-3766 Jul 12 j 10:19	18°II13'04	10.55719 AU		-3760 Oct 06 j 19:40	0°♊	
morning rise	-3766 Jul 29 j 11:41	20°II17'59		retrograde	-3759 Jan 13 j 01:27	6°♊42'39	
retrograde	-3766 Nov 06 j 03:19	27°II37'25		opposition	-3759 Mar 24 j 05:51	3°♊27'10	2°56'26
opposition	-3765 Jan 12 j 15:26	24°II16'36	1°04'12	min. Earth dist.	-3759 Mar 24 j 14:13	3°♊25'38	9.20507 AU
min. Earth dist.	-3765 Jan 12 j 08:46	24°II17'54	8.62947 AU	direct	-3759 Jun 03 j 22:29	0°♊07'58	
direct	-3765 Mar 23 j 19:00	20°II50'04		evening set	-3759 Sep 14 j 04:07	7°♊06'16	
evening set	-3765 Jul 07 j 11:22	28°II27'12					
	-3765 Jul 20 j 08:31	0°♋		conjunction	-3759 Sep 30 j 14:20	8°♊59'48	2°24'12
conjunction	-3765 Jul 24 j 22:13	0°♋33'14	1°06'33	minimum elong	-3759 Sep 30 j 14:21	8°♊59'48	2°24'16
minimum elong	-3765 Jul 24 j 22:11	0°♋33'13	1°06'43	max. Earth dist.	-3759 Sep 30 j 03:25	8°♊56'38	11.21107 AU
max. Earth dist.	-3765 Jul 25 j 04:48	0°♋35'14	10.70172 AU	morning rise	-3759 Oct 16 j 22:40	10°♊52'49	
morning rise	-3765 Aug 11 j 03:38	2°♋37'39		retrograde	-3758 Jan 24 j 12:19	17°♊42'13	
retrograde	-3765 Nov 18 j 06:14	9°♋47'38		opposition	-3758 Apr 05 j 00:11	14°♊26'27	2°53'01
opposition	-3764 Jan 25 j 05:12	6°♋28'27	1°37'33	min. Earth dist.	-3758 Apr 05 j 10:06	14°♊24'39	9.21403 AU
min. Earth dist.	-3764 Jan 25 j 01:30	6°♋29'09	8.77055 AU	direct	-3758 Jun 15 j 15:32	11°♊07'55	
direct	-3764 Apr 04 j 20:54	3°♋03'18		evening set	-3758 Sep 25 j 04:47	18°♊04'05	
evening set	-3764 Jul 19 j 02:55	10°♋31'31					
conjunction	-3764 Aug 05 j 08:12	12°♋34'20	1°31'50	conjunction	-3758 Oct 11 j 14:04	19°♊57'29	2°18'46
minimum elong	-3764 Aug 05 j 08:09	12°♋34'19	1°32'00	minimum elong	-3758 Oct 11 j 14:05	19°♊57'29	2°18'48
max. Earth dist.	-3764 Aug 05 j 10:58	12°♋35'09	10.83683 AU	max. Earth dist.	-3758 Oct 11 j 01:56	19°♊53'57	11.20526 AU
morning rise	-3764 Aug 22 j 08:25	14°♋35'38		morning rise	-3758 Oct 27 j 22:03	21°♊50'35	
retrograde	-3764 Nov 29 j 01:49	21°♋37'53		retrograde	-3757 Feb 05 j 02:13	28°♊42'33	
opposition	-3763 Feb 05 j 12:59	18°♋20'04	2°05'41	opposition	-3757 Apr 16 j 19:19	25°♊26'14	2°43'19
min. Earth dist.	-3763 Feb 05 j 11:41	18°♋20'19	8.89952 AU	min. Earth dist.	-3757 Apr 17 j 06:29	25°♊24'12	9.19325 AU
direct	-3763 Apr 17 j 16:08	14°♋56'20		direct	-3757 Jun 27 j 04:32	22°♊08'09	
evening set	-3763 Jul 31 j 08:17	22°♋16'24		evening set	-3757 Oct 06 j 04:58	29°♊03'40	
					-3757 Oct 14 j 08:37	0°♌	
conjunction	-3763 Aug 17 j 08:21	24°♋16'20	1°52'39	conjunction	-3757 Oct 22 j 14:08	0°♌57'30	2°08'12
minimum elong	-3763 Aug 17 j 08:18	24°♋16'20	1°52'48	minimum elong	-3757 Oct 22 j 14:11	0°♌57'31	2°08'13
max. Earth dist.	-3763 Aug 17 j 07:55	24°♋16'13	10.95713 AU	max. Earth dist.	-3757 Oct 22 j 00:21	0°♌53'29	11.17040 AU
morning rise	-3763 Sep 03 j 03:46	26°♋14'55		morning rise	-3757 Nov 07 j 22:55	2°♌51'20	
	-3763 Oct 08 j 11:01	0°♍		retrograde	-3756 Feb 16 j 18:58	9°♌47'33	
retrograde	-3763 Dec 10 j 18:32	3°♍11'11		opposition	-3756 Apr 27 j 16:56	6°♌30'21	2°27'32
	-3762 Feb 16 j 10:00	30°♌		min. Earth dist.	-3756 Apr 28 j 05:37	6°♌28'02	9.14401 AU
opposition	-3762 Feb 17 j 15:48	29°♌54'26	2°27'55	direct	-3756 Jul 07 j 17:09	3°♌12'25	
min. Earth dist.	-3762 Feb 17 j 16:21	29°♌54'19	9.01126 AU	evening set	-3756 Oct 16 j 06:22	10°♌08'45	
direct	-3762 Apr 30 j 02:56	26°♌32'03					
	-3762 Jul 07 j 16:39	0°♎		conjunction	-3756 Nov 01 j 16:16	12°♌03'35	1°52'45
evening set	-3762 Aug 12 j 04:39	3°♎44'54		minimum elong	-3756 Nov 01 j 16:19	12°♌03'36	1°52'43
conjunction	-3762 Aug 29 j 00:09	5°♎42'27	2°08'30	max. Earth dist.	-3756 Nov 01 j 00:49	11°♌59'03	11.10829 AU
minimum elong	-3762 Aug 29 j 00:06	5°♎42'26	2°08'37	morning rise	-3756 Nov 18 j 02:58	13°♌58'41	
max. Earth dist.	-3762 Aug 28 j 21:35	5°♎41'42	11.05800 AU	retrograde	-3755 Feb 27 j 16:53	21°♌00'46	
morning rise	-3762 Sep 14 j 15:19	7°♎38'47		opposition	-3755 May 09 j 17:53	17°♌42'23	2°06'00
retrograde	-3762 Dec 22 j 06:36	14°♎30'46		min. Earth dist.	-3755 May 10 j 07:37	17°♌39'52	9.06850 AU
opposition	-3761 Mar 01 j 14:45	11°♎14'46	2°43'54	direct	-3755 Jul 19 j 08:13	14°♌24'20	
min. Earth dist.	-3761 Mar 01 j 17:29	11°♎14'15	9.10148 AU	evening set	-3755 Oct 27 j 10:58	21°♌22'58	
direct	-3761 May 12 j 06:31	7°♎53'38		conjunction	-3755 Nov 12 j 22:35	23°♌19'19	1°32'46
evening set	-3761 Aug 23 j 17:48	15°♎00'23		minimum elong	-3755 Nov 12 j 22:38	23°♌19'20	1°32'42
	-3761 Aug 23 j 16:25	15°♎		max. Earth dist.	-3755 Nov 12 j 07:06	23°♌14'44	11.02128 AU
				morning rise	-3755 Nov 29 j 11:54	25°♌16'14	
					-3754 Jan 14 j 19:38	0°♏	

Attention, astronomical year style is used: The year -3754 in astronomical counting style is the year 3755 BCE in historical counting style.

retrograde	-3754 Mar 11 j 20:53	2°♄25'42		minimum elong	-3748 Jan 26 j 00:20	7°♄22'21	1°20'43
	-3754 May 09 j 14:45	30°♄		max. Earth dist.	-3748 Jan 25 j 20:49	7°♄21'13	10.21256 AU
opposition	-3754 May 21 j 22:54	29°♄05'51	1°39'10	morning rise	-3748 Feb 12 j 13:16	9°♄36'54	
min. Earth dist.	-3754 May 22 j 12:15	29°♄03'22	8.96951 AU	retrograde	-3748 May 30 j 00:22	17°♄52'25	
direct	-3754 Jul 31 j 01:54	25°♄47'26		opposition	-3748 Aug 07 j 01:18	14°♄22'37	-1°-57'-28
	-3754 Oct 13 j 06:53	0°♄		min. Earth dist.	-3748 Aug 07 j 02:26	14°♄22'23	8.14791 AU
evening set	-3754 Nov 07 j 20:34	2°♄49'56		direct	-3748 Oct 12 j 16:11	10°♄58'00	
				evening set	-3747 Jan 21 j 19:32	18°♄52'36	
conjunction	-3754 Nov 24 j 10:41	4°♄48'17	1°08'44	conjunction	-3747 Feb 08 j 07:10	21°♄08'26	-1°-46'-15
minimum elong	-3754 Nov 24 j 10:44	4°♄48'18	1°08'39	minimum elong	-3747 Feb 08 j 07:07	21°♄08'25	1°46'25
max. Earth dist.	-3754 Nov 23 j 20:16	4°♄43'58	10.91241 AU	max. Earth dist.	-3747 Feb 08 j 07:12	21°♄08'27	10.08761 AU
morning rise	-3754 Dec 11 j 03:10	6°♄47'27		morning rise	-3747 Feb 25 j 23:49	23°♄25'56	
retrograde	-3753 Mar 24 j 10:59	14°♄05'47			-3747 Apr 28 j 06:59	0°≈	
opposition	-3753 Jun 03 j 09:28	10°♄44'18	1°07'39	retrograde	-3747 Jun 13 j 20:55	1°≈51'24	
min. Earth dist.	-3753 Jun 03 j 21:32	10°♄42'02	8.85059 AU		-3747 Jul 31 j 03:53	30°♄	
direct	-3753 Aug 11 j 23:43	7°♄25'18		opposition	-3747 Aug 21 j 07:36	28°♄20'32	-2°-26'-32
evening set	-3753 Nov 19 j 13:08	14°♄33'11		min. Earth dist.	-3747 Aug 21 j 05:30	28°♄20'57	8.03417 AU
	-3753 Nov 23 j 07:08	15°♄		direct	-3747 Oct 26 j 12:20	24°♄54'35	
conjunction	-3753 Dec 06 j 06:09	16°♄33'57	0°41'19		-3746 Jan 12 j 03:40	0°≈	
minimum elong	-3753 Dec 06 j 06:10	16°♄33'58	0°41'13	evening set	-3746 Feb 05 j 11:14	2°≈59'39	
max. Earth dist.	-3753 Dec 05 j 16:32	16°♄29'50	10.78570 AU	conjunction	-3746 Feb 23 j 02:34	5°≈18'08	-2°-6'-15
morning rise	-3753 Dec 23 j 02:24	18°♄35'48		minimum elong	-3746 Feb 23 j 02:31	5°≈18'07	2°06'25
retrograde	-3752 Apr 05 j 08:38	26°♄04'19		max. Earth dist.	-3746 Feb 23 j 06:07	5°≈19'18	9.98546 AU
opposition	-3752 Jun 15 j 02:29	22°♄41'05	0°32'21	morning rise	-3746 Mar 12 j 22:36	7°≈38'10	
min. Earth dist.	-3752 Jun 15 j 13:15	22°♄39'03	8.71636 AU		-3746 May 23 j 09:41	15°≈	
direct	-3752 Aug 23 j 00:42	19°♄21'16		retrograde	-3746 Jun 28 j 22:56	16°≈11'01	
evening set	-3752 Nov 30 j 14:44	26°♄36'09			-3746 Aug 04 j 17:20	15°♄≈	
conjunction	-3752 Dec 17 j 11:01	28°♄39'40	0°11'25	opposition	-3746 Sep 04 j 19:25	12°≈39'29	-2°-47'-19
minimum elong	-3752 Dec 17 j 11:01	28°♄39'40	0°11'18	min. Earth dist.	-3746 Sep 04 j 14:36	12°≈40'29	7.94686 AU
behind sun begin	-3752 Dec 17 j 05:48	28°♄38'05		direct	-3746 Nov 09 j 16:54	9°≈12'17	
behind sun end	-3752 Dec 17 j 16:14	28°♄41'15			-3745 Feb 01 j 03:29	15°≈	
max. Earth dist.	-3752 Dec 16 j 22:06	28°♄35'42	10.64617 AU	evening set	-3745 Feb 20 j 13:50	17°≈26'26	
	-3752 Dec 28 j 08:43	0°♄		conjunction	-3745 Mar 10 j 08:47	19°≈47'06	-2°-18'-47
morning rise	-3751 Jan 03 j 11:30	0°♄44'32		minimum elong	-3745 Mar 10 j 08:45	19°≈47'06	2°18'55
retrograde	-3751 Apr 18 j 15:09	8°♄24'19		max. Earth dist.	-3745 Mar 10 j 16:00	19°≈49'30	9.91323 AU
desc. node	-3751 May 04 j 16:27	8°♄11'34		morning rise	-3745 Mar 28 j 07:47	22°≈09'04	
opposition	-3751 Jun 28 j 02:33	4°♄59'18	0°-5'-34		-3745 Jun 15 j 04:02	0°♄	
min. Earth dist.	-3751 Jun 28 j 12:12	4°♄57'26	8.57232 AU	retrograde	-3745 Jul 14 j 03:43	0°♄45'49	
direct	-3751 Sep 04 j 10:05	1°♄38'27			-3745 Aug 12 j 03:39	30°♄≈	
evening set	-3751 Dec 13 j 02:56	9°♄01'49		opposition	-3745 Sep 19 j 10:58	27°≈14'04	-2°-57'-47
conjunction	-3751 Dec 30 j 02:54	11°♄08'22	0°-19'-55	min. Earth dist.	-3745 Sep 19 j 03:44	27°≈15'35	7.89220 AU
minimum elong	-3751 Dec 30 j 02:53	11°♄08'21	0°20'04	direct	-3745 Nov 24 j 06:04	23°≈45'46	
max. Earth dist.	-3751 Dec 29 j 16:09	11°♄05'01	10.49959 AU		-3744 Feb 19 j 08:42	0°♄	
morning rise	-3750 Jan 16 j 07:42	13°♄16'26		evening set	-3744 Mar 07 j 00:30	2°♄06'44	
retrograde	-3750 May 02 j 08:21	21°♄08'13		conjunction	-3744 Mar 24 j 22:51	4°♄28'56	-2°-22'-32
opposition	-3750 Jul 11 j 10:19	17°♄41'27	0°-44'-32	minimum elong	-3744 Mar 24 j 22:51	4°♄28'56	2°22'38
min. Earth dist.	-3750 Jul 11 j 17:57	17°♄39'58	8.42473 AU	max. Earth dist.	-3744 Mar 25 j 09:34	4°♄32'30	9.87631 AU
direct	-3750 Sep 17 j 03:33	14°♄19'26		morning rise	-3744 Apr 12 j 00:18	6°♄52'05	
evening set	-3750 Dec 26 j 03:09	21°♄52'31		retrograde	-3744 Jul 28 j 07:16	15°♄28'39	
conjunction	-3749 Jan 12 j 07:00	24°♄02'13	0°-51'-7	opposition	-3744 Oct 03 j 03:51	11°♄57'11	-2°-56'-41
minimum elong	-3749 Jan 12 j 06:58	24°♄02'12	0°51'17	min. Earth dist.	-3744 Oct 02 j 18:31	11°♄59'08	7.87422 AU
max. Earth dist.	-3749 Jan 11 j 23:36	23°♄59'52	10.35253 AU	direct	-3744 Dec 08 j 02:01	8°♄28'01	
morning rise	-3749 Jan 29 j 15:55	26°♄13'34		evening set	-3743 Mar 22 j 15:45	16°♄52'50	
	-3749 Mar 03 j 05:32	0°♄		conjunction	-3743 Apr 09 j 17:00	19°♄15'46	-2°-17'00
retrograde	-3749 May 16 j 11:51	4°♄17'30		minimum elong	-3743 Apr 09 j 17:02	19°♄15'47	2°17'03
opposition	-3749 Jul 25 j 01:59	0°♄49'08	-1°-22'-37	max. Earth dist.	-3743 Apr 10 j 06:40	19°♄20'18	9.87751 AU
min. Earth dist.	-3749 Jul 25 j 06:35	0°♄48'13	8.28068 AU	morning rise	-3743 Apr 27 j 20:03	21°♄39'13	
	-3749 Aug 04 j 11:53	30°♄			-3743 Jul 29 j 01:25	0°♄	
direct	-3749 Sep 30 j 05:01	27°♄25'50		retrograde	-3743 Aug 12 j 05:54	0°♄11'24	
	-3749 Nov 23 j 06:41	0°♄			-3743 Aug 26 j 10:25	30°♄	
evening set	-3748 Jan 08 j 16:36	5°♄09'32		opposition	-3743 Oct 17 j 19:29	26°♄40'41	-2°-43'-57
conjunction	-3748 Jan 26 j 00:23	7°♄22'22	-1°-20'-33	min. Earth dist.	-3743 Oct 17 j 08:17	26°♄43'02	7.89437 AU

Attention, astronomical year style is used: The year -3743 in astronomical counting style is the year 3744 BCE in historical counting style.

direct	-3743 Dec 23 j 00:56	23° <del>✕</del> 10°59		direct	-3736 Mar 17 j 10:24	15° <del>II</del> 42'11	
	-3742 Mar 25 j 16:00	0° <del>Y</del>		evening set	-3736 Jul 01 j 06:52	23° <del>II</del> 23'28	
evening set	-3742 Apr 07 j 07:17	1° <del>Y</del> 36'14					
				conjunction	-3736 Jul 18 j 19:58	25° <del>II</del> 30'56	0°54'26
conjunction	-3742 Apr 25 j 10:38	3° <del>Y</del> 59'02	-2°-2'-34	minimum elong	-3736 Jul 18 j 19:56	25° <del>II</del> 30'55	0°54'35
minimum elong	-3742 Apr 25 j 10:41	3° <del>Y</del> 59'03	2°02'35	max. Earth dist.	-3736 Jul 19 j 01:32	25° <del>II</del> 32'38	10.64463 AU
max. Earth dist.	-3742 Apr 26 j 02:39	4° <del>Y</del> 04'19	9.91691 AU	morning rise	-3736 Aug 05 j 03:55	27° <del>II</del> 36'49	
morning rise	-3742 May 13 j 14:18	6° <del>Y</del> 21'52			-3736 Aug 25 j 23:49	0° <del>☾</del>	
retrograde	-3742 Aug 26 j 21:46	14° <del>Y</del> 45'59		retrograde	-3736 Nov 12 j 11:22	4° <del>☾</del> 50'51	
opposition	-3742 Nov 01 j 07:37	11° <del>Y</del> 16'23	-2°-20'-40	opposition	-3735 Jan 19 j 05:46	1° <del>☾</del> 31'15	1°23'46
min. Earth dist.	-3742 Oct 31 j 18:51	11° <del>Y</del> 19'03	7.95128 AU	min. Earth dist.	-3735 Jan 19 j 01:20	1° <del>☾</del> 32'06	8.71289 AU
direct	-3741 Jan 06 j 23:50	7° <del>Y</del> 46'29			-3735 Feb 08 j 15:36	30° <del>R</del> <del>II</del>	
evening set	-3741 Apr 22 j 19:00	16° <del>Y</del> 08'50		direct	-3735 Mar 30 j 17:08	28° <del>II</del> 05'43	
					-3735 May 18 j 20:27	0° <del>☾</del>	
conjunction	-3741 May 10 j 23:20	18° <del>Y</del> 30'35	-1°-40'-30	evening set	-3735 Jul 14 j 03:23	5° <del>☾</del> 37'55	
minimum elong	-3741 May 10 j 23:25	18° <del>Y</del> 30'36	1°40'29				
max. Earth dist.	-3741 May 11 j 16:42	18° <del>Y</del> 36'15	9.99150 AU	conjunction	-3735 Jul 31 j 11:12	7° <del>☾</del> 42'08	1°21'28
morning rise	-3741 May 29 j 02:28	20° <del>Y</del> 51'53		minimum elong	-3735 Jul 31 j 11:09	7° <del>☾</del> 42'07	1°21'38
retrograde	-3741 Sep 10 j 04:57	29° <del>Y</del> 05'08		max. Earth dist.	-3735 Jul 31 j 14:26	7° <del>☾</del> 43'07	10.77949 AU
opposition	-3741 Nov 15 j 14:10	25° <del>Y</del> 36'59	-1°-48'-58	morning rise	-3735 Aug 17 j 13:41	9° <del>☾</del> 44'48	
min. Earth dist.	-3741 Nov 15 j 00:53	25° <del>Y</del> 39'44	8.04062 AU	retrograde	-3735 Nov 24 j 11:26	16° <del>☾</del> 50'31	
direct	-3740 Jan 21 j 19:23	22° <del>Y</del> 07'10		opposition	-3734 Jan 31 j 16:24	13° <del>☾</del> 32'11	1°54'17
	-3740 May 03 j 20:14	0° <del>♄</del>		min. Earth dist.	-3734 Jan 31 j 14:17	13° <del>☾</del> 32'36	8.84256 AU
evening set	-3740 May 06 j 23:52	0° <del>♄</del> 23'49		direct	-3734 Apr 12 j 15:22	10° <del>☾</del> 07'53	
				evening set	-3734 Jul 26 j 13:25	17° <del>☾</del> 31'39	
conjunction	-3740 May 25 j 03:45	2° <del>♄</del> 43'40	-1°-12'-40				
minimum elong	-3740 May 25 j 03:48	2° <del>♄</del> 43'41	1°12'36	conjunction	-3734 Aug 12 j 15:57	19° <del>☾</del> 32'54	1°44'19
max. Earth dist.	-3740 May 25 j 20:55	2° <del>♄</del> 49'12	10.09546 AU	minimum elong	-3734 Aug 12 j 15:53	19° <del>☾</del> 32'53	1°44'28
morning rise	-3740 Jun 12 j 04:59	5° <del>♄</del> 02'37		max. Earth dist.	-3734 Aug 12 j 16:36	19° <del>☾</del> 33'06	10.90159 AU
retrograde	-3740 Sep 23 j 03:16	13° <del>♄</del> 03'20		morning rise	-3734 Aug 29 j 13:19	21° <del>☾</del> 32'41	
opposition	-3740 Nov 28 j 13:35	9° <del>♄</del> 36'51	-1°-11'-31	retrograde	-3734 Dec 06 j 06:21	28° <del>☾</del> 31'41	
min. Earth dist.	-3740 Nov 28 j 01:03	9° <del>♄</del> 39'25	8.15569 AU	opposition	-3733 Feb 12 j 21:30	25° <del>☾</del> 14'24	2°19'11
direct	-3739 Feb 04 j 09:48	6° <del>♄</del> 07'24		min. Earth dist.	-3733 Feb 12 j 22:32	25° <del>☾</del> 14'12	8.95715 AU
evening set	-3739 May 21 j 19:01	14° <del>♄</del> 16'19		direct	-3733 Apr 25 j 04:33	21° <del>☾</del> 51'15	
	-3739 May 27 j 14:15	15° <del>♄</del>		evening set	-3733 Aug 07 j 14:04	29° <del>☾</del> 07'30	
					-3733 Aug 15 j 02:33	0° <del>♄</del>	
conjunction	-3739 Jun 08 j 20:54	16° <del>♄</del> 33'33	0°-41'-13	conjunction	-3733 Aug 24 j 11:32	1° <del>♄</del> 06'11	2°02'22
minimum elong	-3739 Jun 08 j 20:56	16° <del>♄</del> 33'33	0°41'08	minimum elong	-3733 Aug 24 j 11:30	1° <del>♄</del> 06'10	2°02'30
max. Earth dist.	-3739 Jun 09 j 12:23	16° <del>♄</del> 38'28	10.22092 AU	max. Earth dist.	-3733 Aug 24 j 08:33	1° <del>♄</del> 05'18	11.00631 AU
morning rise	-3739 Jun 26 j 19:01	18° <del>♄</del> 49'34		morning rise	-3733 Sep 10 j 04:31	3° <del>♄</del> 03'33	
retrograde	-3739 Oct 06 j 14:08	26° <del>♄</del> 37'17		retrograde	-3733 Dec 17 j 18:16	9° <del>♄</del> 57'34	
opposition	-3739 Dec 12 j 05:17	23° <del>♄</del> 12'36	0°-31'-8	opposition	-3732 Feb 24 j 22:21	6° <del>♄</del> 41'00	2°37'56
min. Earth dist.	-3739 Dec 11 j 18:46	23° <del>♄</del> 14'43	8.28813 AU	min. Earth dist.	-3732 Feb 25 j 02:07	6° <del>♄</del> 40'18	9.05234 AU
direct	-3738 Feb 18 j 18:14	19° <del>♄</del> 43'49		direct	-3732 May 06 j 11:56	3° <del>♄</del> 18'57	
evening set	-3738 Jun 05 j 02:42	27° <del>♄</del> 43'49		evening set	-3732 Aug 18 j 06:26	10° <del>♄</del> 28'44	
conjunction	-3738 Jun 23 j 01:15	29° <del>♄</del> 57'58	0°-8'-22	conjunction	-3732 Sep 03 j 23:32	12° <del>♄</del> 25'17	2°15'16
minimum elong	-3738 Jun 23 j 01:15	29° <del>♄</del> 57'58	0°08'16	minimum elong	-3732 Sep 03 j 23:30	12° <del>♄</del> 25'16	2°15'23
behind sun begin	-3738 Jun 22 j 18:51	29° <del>♄</del> 55'59		max. Earth dist.	-3732 Sep 03 j 17:31	12° <del>♄</del> 23'31	11.08992 AU
behind sun end	-3738 Jun 23 j 07:39	29° <del>♄</del> 59'57		morning rise	-3732 Sep 20 j 12:53	14° <del>♄</del> 20'45	
	-3738 Jun 23 j 07:42	0° <del>II</del>			-3732 Sep 26 j 07:09	15° <del>♄</del>	
max. Earth dist.	-3738 Jun 23 j 13:39	0° <del>II</del> 01'51	10.35914 AU	retrograde	-3732 Dec 28 j 05:40	21° <del>♄</del> 11'33	
morning rise	-3738 Jul 10 j 19:17	2° <del>II</del> 10'42		opposition	-3731 Mar 07 j 19:56	17° <del>♄</del> 55'24	2°50'16
asc. node	-3738 Sep 27 j 01:50	9° <del>II</del> 18'17		min. Earth dist.	-3731 Mar 08 j 01:17	17° <del>♄</del> 54'25	9.12479 AU
retrograde	-3738 Oct 19 j 13:51	9° <del>II</del> 46'00			-3731 Apr 25 j 02:37	15° <del>R</del> <del>♄</del>	
opposition	-3738 Dec 25 j 12:58	6° <del>II</del> 23'09	0°09'34	direct	-3731 May 18 j 14:35	14° <del>♄</del> 34'22	
min. Earth dist.	-3738 Dec 25 j 04:49	6° <del>II</del> 24'46	8.42964 AU		-3731 Jun 10 j 19:49	15° <del>♄</del>	
direct	-3737 Mar 04 j 18:48	2° <del>II</del> 55'18		evening set	-3731 Aug 29 j 16:12	21° <del>♄</del> 38'47	
evening set	-3737 Jun 18 j 22:43	10° <del>II</del> 45'57					
conjunction	-3737 Jul 06 j 16:51	12° <del>II</del> 56'47	0°24'06	conjunction	-3731 Sep 15 j 05:57	23° <del>♄</del> 33'47	2°22'50
minimum elong	-3737 Jul 06 j 16:50	12° <del>II</del> 56'47	0°24'14	minimum elong	-3731 Sep 15 j 05:56	23° <del>♄</del> 33'47	2°22'55
max. Earth dist.	-3737 Jul 07 j 01:28	12° <del>II</del> 59'27	10.50251 AU	max. Earth dist.	-3731 Sep 14 j 22:27	23° <del>♄</del> 31'36	11.14969 AU
morning rise	-3737 Jul 24 j 06:05	15° <del>II</del> 06'05		morning rise	-3731 Oct 01 j 16:26	25° <del>♄</del> 27'54	
retrograde	-3737 Nov 01 j 04:35	22° <del>II</del> 30'03			-3731 Nov 15 j 20:43	0° <del>♄</del>	
opposition	-3736 Jan 07 j 12:49	19° <del>II</del> 08'56	0°48'26	retrograde	-3730 Jan 08 j 15:41	2° <del>♄</del> 17'10	
min. Earth dist.	-3736 Jan 07 j 06:40	19° <del>II</del> 10'08	8.57331 AU		-3730 Mar 06 j 01:46	30° <del>R</del> <del>♄</del>	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 15

Attention, astronomical year style is used: The year -3730 in astronomical counting style is the year 3731 BCE in historical counting style.

opposition	-3730 Mar 19 j 15:20	29°01'07	2°56'06	direct	-3724 Aug 06 j 07:06	2°04'09	
min. Earth dist.	-3730 Mar 19 j 22:15	28°05'51	9.17215 AU	evening set	-3724 Nov 13 j 23:30	9°04'35	
direct	-3730 May 30 j 09:52	25°04'00					
	-3730 Aug 15 j 22:31	0°00		conjunction	-3724 Nov 30 j 15:05	11°04'15	0°53'17
evening set	-3730 Sep 09 j 21:02	2°04'41'20		minimum elong	-3724 Nov 30 j 15:07	11°04'15	0°53'11
				max. Earth dist.	-3724 Nov 30 j 01:47	11°04'51'14	10.84662 AU
conjunction	-3730 Sep 26 j 08:19	4°03'35'20	2°25'00	morning rise	-3724 Dec 17 j 09:46	13°04'53	
minimum elong	-3730 Sep 26 j 08:19	4°03'35'20	2°25'04		-3724 Dec 27 j 11:07	15°00	
max. Earth dist.	-3730 Sep 25 j 23:04	4°03'32'39	11.18371 AU	retrograde	-3723 Mar 31 j 05:34	21°04'13'47	
morning rise	-3730 Oct 12 j 17:01	6°03'28'41		opposition	-3723 Jun 10 j 02:36	17°04'51'38	0°47'39
retrograde	-3729 Jan 20 j 02:15	13°03'18'06		min. Earth dist.	-3723 Jun 10 j 13:29	17°04'59'35	8.78329 AU
opposition	-3729 Mar 31 j 09:57	10°03'01'56	2°55'25		-3723 Jul 25 j 21:39	15°04'00	
min. Earth dist.	-3729 Mar 31 j 19:03	10°03'00'16	9.19292 AU	direct	-3723 Aug 18 j 07:03	14°03'32'33	
direct	-3729 Jun 11 j 02:24	6°03'42'33			-3723 Sep 10 j 08:49	15°00	
evening set	-3729 Sep 20 j 22:45	13°03'40'08		evening set	-3723 Nov 25 j 21:07	21°04'44'07	
conjunction	-3729 Oct 07 j 08:22	15°03'33'43	2°21'48	conjunction	-3723 Dec 12 j 15:59	23°04'46'20	0°24'17
minimum elong	-3729 Oct 07 j 08:23	15°03'33'43	2°21'51	minimum elong	-3723 Dec 12 j 16:00	23°04'46'20	0°24'10
max. Earth dist.	-3729 Oct 06 j 20:38	15°03'30'19	11.19096 AU	max. Earth dist.	-3723 Dec 12 j 04:40	23°04'42'53	10.71802 AU
morning rise	-3729 Oct 23 j 16:28	17°03'26'55		morning rise	-3723 Dec 29 j 14:31	25°04'49'45	
retrograde	-3728 Jan 31 j 13:08	24°03'18'07			-3722 Feb 05 j 19:10	0°00	
opposition	-3728 Apr 11 j 04:59	21°03'01'33	2°48'22	retrograde	-3722 Apr 13 j 08:24	3°00'24'17	
min. Earth dist.	-3728 Apr 11 j 16:00	20°03'59'32	9.18651 AU	opposition	-3722 Jun 22 j 23:22	0°00'00'31	0°10'40
direct	-3728 Jun 21 j 16:12	17°03'42'45		min. Earth dist.	-3722 Jun 23 j 08:14	29°04'58'49	8.64866 AU
evening set	-3728 Sep 30 j 23:03	24°03'38'58			-3722 Jun 23 j 02:03	30°04'00	
				direct	-3722 Aug 30 j 14:00	26°04'40'40	
conjunction	-3728 Oct 17 j 08:07	26°03'32'42	2°13'23	desc. node	-3722 Oct 06 j 06:18	27°04'50'35	
minimum elong	-3728 Oct 17 j 08:09	26°03'32'43	2°13'25		-3722 Nov 02 j 03:56	0°00	
max. Earth dist.	-3728 Oct 16 j 19:01	26°03'28'53	11.17130 AU	evening set	-3722 Dec 08 j 04:37	3°00'25'51	
morning rise	-3728 Nov 02 j 16:39	28°03'26'20					
	-3728 Nov 16 j 17:16	0°00		conjunction	-3722 Dec 25 j 02:59	6°00'24'55	0°-6'-39
retrograde	-3727 Feb 11 j 03:47	5°00'21'00		minimum elong	-3722 Dec 25 j 02:58	6°00'24'54	0°06'47
opposition	-3727 Apr 23 j 01:31	2°00'03'44	2°35'06	behind sun begin	-3722 Dec 24 j 20:21	6°00'02'53	
min. Earth dist.	-3727 Apr 23 j 13:00	2°00'01'38	9.15313 AU	behind sun end	-3722 Dec 25 j 09:34	6°00'06'56	
	-3727 May 23 j 12:43	30°04'00		max. Earth dist.	-3722 Dec 24 j 17:29	6°00'01'59	10.57926 AU
direct	-3727 Jul 03 j 06:26	28°03'45'20		morning rise	-3721 Jan 11 j 05:37	8°00'21'23	
	-3727 Aug 11 j 21:31	0°00		retrograde	-3721 Apr 26 j 22:15	15°00'25'72	
evening set	-3727 Oct 11 j 23:36	5°00'41'36		opposition	-3721 Jul 06 j 03:42	12°00'23'157	0°-28'-2
				min. Earth dist.	-3721 Jul 06 j 10:21	12°00'23'039	8.50698 AU
conjunction	-3727 Oct 28 j 09:15	7°00'36'05	1°59'57	direct	-3721 Sep 12 j 02:55	9°00'21'107	
minimum elong	-3727 Oct 28 j 09:18	7°00'36'05	1°59'56	evening set	-3721 Dec 20 j 23:23	16°00'23'911	
max. Earth dist.	-3727 Oct 27 j 20:12	7°00'32'15	11.12516 AU				
morning rise	-3727 Nov 13 j 19:03	9°00'30'41		conjunction	-3720 Jan 07 j 01:21	18°00'24'714	0°-38'-1
retrograde	-3726 Feb 23 j 01:23	16°00'30'25		minimum elong	-3720 Jan 07 j 01:19	18°00'24'714	0°38'10
opposition	-3726 May 05 j 00:46	13°00'12'14	2°15'54	max. Earth dist.	-3720 Jan 06 j 17:26	18°00'24'445	10.43626 AU
min. Earth dist.	-3726 May 05 j 12:14	13°00'10'08	9.09366 AU	morning rise	-3720 Jan 24 j 08:17	20°00'25'655	
direct	-3726 Jul 14 j 20:37	9°00'54'02		retrograde	-3720 May 09 j 21:49	28°00'25'445	
evening set	-3726 Oct 23 j 02:42	16°00'51'48		opposition	-3720 Jul 18 j 15:46	25°00'27'42	-1°-6'-40
				min. Earth dist.	-3720 Jul 18 j 20:40	25°00'26'44	8.36440 AU
conjunction	-3726 Nov 08 j 13:38	18°00'47'32	1°41'49	direct	-3720 Sep 23 j 23:23	22°00'25'39	
minimum elong	-3726 Nov 08 j 13:41	18°00'47'33	1°41'45	evening set	-3719 Jan 02 j 06:48	29°00'24'343	
max. Earth dist.	-3726 Nov 08 j 00:12	18°00'43'34	11.05388 AU		-3719 Jan 04 j 10:50	0°00	
morning rise	-3726 Nov 25 j 01:37	20°00'43'41					
retrograde	-3725 Mar 07 j 02:44	27°00'50'00		conjunction	-3719 Jan 19 j 12:33	1°00'25'452	-1°-8'-22
opposition	-3725 May 17 j 03:58	24°00'30'41	1°51'12	minimum elong	-3719 Jan 19 j 12:31	1°00'25'451	1°08'31
min. Earth dist.	-3725 May 17 j 15:42	24°00'28'31	9.01003 AU	max. Earth dist.	-3719 Jan 19 j 06:38	1°00'25'258	10.29521 AU
direct	-3725 Jul 26 j 11:13	21°00'12'26		morning rise	-3719 Feb 05 j 23:41	4°00'07'43	
evening set	-3725 Nov 03 j 10:06	28°00'13'18		retrograde	-3719 May 24 j 04:59	12°00'17'10	
	-3725 Nov 18 j 10:52	0°00		opposition	-3719 Aug 01 j 11:16	8°00'24'840	-1°-43'-5
				min. Earth dist.	-3719 Aug 01 j 14:25	8°00'24'802	8.22734 AU
conjunction	-3725 Nov 19 j 22:57	0°00'10'45	1°19'23	direct	-3719 Oct 07 j 06:50	5°00'25'15	
minimum elong	-3725 Nov 19 j 22:59	0°00'10'46	1°19'19	evening set	-3718 Jan 16 j 03:21	13°00'21'404	
max. Earth dist.	-3725 Nov 19 j 08:45	0°00'06'32	10.95994 AU				
morning rise	-3725 Dec 06 j 14:01	2°00'08'56		conjunction	-3718 Feb 02 j 13:01	15°00'28'16	-1°-35'-50
retrograde	-3724 Mar 18 j 12:14	9°00'23'21		minimum elong	-3718 Feb 02 j 12:57	15°00'28'15	1°36'00
opposition	-3724 May 28 j 12:20	6°00'02'42	1°21'31	max. Earth dist.	-3718 Feb 02 j 10:02	15°00'27'19	10.16301 AU
min. Earth dist.	-3724 May 29 j 00:16	6°00'00'29	8.90531 AU	morning rise	-3718 Feb 20 j 04:00	17°00'24'411	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 16

Attention, astronomical year style is used: The year -3718 in astronomical counting style is the year 3719 BCE in historical counting style.

retrograde	-3718 Jun 07 j 20:49	26° $\text{𐌆}$ 04'21		direct	-3711 Jan 14 j 17:19	16° $\text{𐌶}$ 05'13	
opposition	-3718 Aug 15 j 14:07	22° $\text{𐌆}$ 34'36	-2°-14'-51	evening set	-3711 Apr 30 j 18:00	24° $\text{𐌶}$ 24'30	
min. Earth dist.	-3718 Aug 15 j 14:49	22° $\text{𐌆}$ 34'27	8.10337 AU				
direct	-3718 Oct 20 j 23:20	19° $\text{𐌆}$ 09'48		conjunction	-3711 May 18 j 22:07	26° $\text{𐌶}$ 45'17	-1°-25'-38
evening set	-3717 Jan 30 j 12:47	27° $\text{𐌆}$ 09'20		minimum elong	-3711 May 18 j 22:10	26° $\text{𐌶}$ 45'18	1°25'35
				max. Earth dist.	-3711 May 19 j 13:18	26° $\text{𐌶}$ 50'13	10.04011 AU
conjunction	-3717 Feb 17 j 02:21	29° $\text{𐌆}$ 26'23	-1°-58'-28	morning rise	-3711 Jun 06 j 00:28	29° $\text{𐌶}$ 05'24	
minimum elong	-3717 Feb 17 j 02:17	29° $\text{𐌆}$ 26'22	1°58'37		-3711 Jun 13 j 05:59	0° $\text{𐌹}$	
max. Earth dist.	-3717 Feb 17 j 03:32	29° $\text{𐌆}$ 26'47	10.04804 AU	retrograde	-3711 Sep 17 j 10:53	7° $\text{𐌹}$ 11'46	
	-3717 Feb 21 j 09:00	0° $\text{𐌹}$		opposition	-3711 Nov 22 j 20:39	3° $\text{𐌹}$ 44'05	-1°-28'-45
morning rise	-3717 Mar 06 j 20:48	1° $\text{𐌹}$ 45'02		min. Earth dist.	-3711 Nov 22 j 09:15	3° $\text{𐌹}$ 46'26	8.09364 AU
retrograde	-3717 Jun 22 j 19:42	10° $\text{𐌹}$ 13'57		direct	-3710 Jan 29 j 10:57	0° $\text{𐌹}$ 13'55	
opposition	-3717 Aug 29 j 23:10	6° $\text{𐌹}$ 43'13	-2°-39'-25	evening set	-3710 May 15 j 17:08	8° $\text{𐌹}$ 26'33	
min. Earth dist.	-3717 Aug 29 j 20:37	6° $\text{𐌹}$ 43'44	8.00104 AU				
direct	-3717 Nov 04 j 00:25	3° $\text{𐌹}$ 17'02		conjunction	-3710 Jun 02 j 20:02	10° $\text{𐌹}$ 45'05	0°-55'-32
evening set	-3716 Feb 14 j 10:13	11° $\text{𐌹}$ 26'23		minimum elong	-3710 Jun 02 j 20:04	10° $\text{𐌹}$ 45'06	0°55'28
				max. Earth dist.	-3710 Jun 03 j 10:30	10° $\text{𐌹}$ 49'43	10.15281 AU
conjunction	-3716 Mar 03 j 03:35	13° $\text{𐌹}$ 45'53	-2°-14'-22	morning rise	-3710 Jun 20 j 19:55	13° $\text{𐌹}$ 02'35	
minimum elong	-3716 Mar 03 j 03:33	13° $\text{𐌹}$ 45'52	2°14'31		-3710 Jul 06 j 20:25	15° $\text{𐌹}$	
max. Earth dist.	-3716 Mar 03 j 09:01	13° $\text{𐌹}$ 47'40	9.95875 AU	retrograde	-3710 Oct 01 j 01:11	20° $\text{𐌹}$ 56'18	
	-3716 Mar 12 j 12:22	15° $\text{𐌹}$		opposition	-3710 Dec 06 j 15:28	17° $\text{𐌹}$ 30'17	0°-49'-20
morning rise	-3716 Mar 21 j 01:08	16° $\text{𐌹}$ 06'46		min. Earth dist.	-3710 Dec 06 j 04:21	17° $\text{𐌹}$ 32'33	8.21611 AU
retrograde	-3716 Jul 06 j 22:50	24° $\text{𐌹}$ 41'17			-3709 Jan 10 j 01:50	15° $\text{𐌹}$	
opposition	-3716 Sep 12 j 12:37	21° $\text{𐌹}$ 09'58	-2°-54'-33	direct	-3709 Feb 12 j 22:55	14° $\text{𐌹}$ 00'39	
min. Earth dist.	-3716 Sep 12 j 06:51	21° $\text{𐌹}$ 11'09	7.92783 AU		-3709 Mar 18 j 16:40	15° $\text{𐌹}$	
direct	-3716 Nov 17 j 09:23	17° $\text{𐌹}$ 42'27		evening set	-3709 May 30 j 05:44	22° $\text{𐌹}$ 04'57	
evening set	-3715 Feb 28 j 17:09	25° $\text{𐌹}$ 59'47					
				conjunction	-3709 Jun 17 j 06:04	24° $\text{𐌹}$ 20'39	0°-23'-3
conjunction	-3715 Mar 18 j 14:05	28° $\text{𐌹}$ 21'09	-2°-22'-2	minimum elong	-3709 Jun 17 j 06:05	24° $\text{𐌹}$ 20'39	0°22'57
minimum elong	-3715 Mar 18 j 14:05	28° $\text{𐌹}$ 21'09	2°22'09	max. Earth dist.	-3709 Jun 17 j 19:16	24° $\text{𐌹}$ 24'49	10.28433 AU
max. Earth dist.	-3715 Mar 18 j 23:19	28° $\text{𐌹}$ 24'13	9.90183 AU	morning rise	-3709 Jul 05 j 02:15	26° $\text{𐌹}$ 35'01	
	-3715 Mar 31 j 00:50	0° $\text{𐌹}$			-3709 Aug 03 j 11:21	0° $\text{𐌹}$	
morning rise	-3715 Apr 05 j 14:16	0° $\text{𐌹}$ 43'37		retrograde	-3709 Oct 14 j 05:40	4° $\text{𐌹}$ 16'03	
retrograde	-3715 Jul 22 j 02:54	9° $\text{𐌹}$ 19'53		opposition	-3709 Dec 20 j 02:27	0° $\text{𐌹}$ 51'50	0°-8'-28
opposition	-3715 Sep 27 j 04:31	5° $\text{𐌹}$ 48'24	-2°-58'-35	min. Earth dist.	-3709 Dec 19 j 16:14	0° $\text{𐌹}$ 53'53	8.35370 AU
min. Earth dist.	-3715 Sep 26 j 20:07	5° $\text{𐌹}$ 50'10	7.88910 AU		-3709 Dec 30 j 23:17	30° $\text{𐌹}$	
direct	-3715 Dec 02 j 01:38	2° $\text{𐌹}$ 19'45		direct	-3708 Feb 27 j 02:22	27° $\text{𐌹}$ 23'02	
evening set	-3714 Mar 16 j 06:03	10° $\text{𐌹}$ 42'22		asc. node	-3708 Mar 08 j 01:37	27° $\text{𐌹}$ 28'14	
					-3708 Apr 23 j 21:21	0° $\text{𐌹}$	
conjunction	-3714 Apr 03 j 06:04	13° $\text{𐌹}$ 04'53	-2°-20'-35	evening set	-3708 Jun 12 j 06:52	5° $\text{𐌹}$ 18'05	
minimum elong	-3714 Apr 03 j 06:06	13° $\text{𐌹}$ 04'53	2°20'39				
max. Earth dist.	-3714 Apr 03 j 18:30	13° $\text{𐌹}$ 09'00	9.88150 AU	conjunction	-3708 Jun 30 j 03:20	7° $\text{𐌹}$ 30'32	0°09'50
morning rise	-3714 Apr 21 j 08:14	15° $\text{𐌹}$ 28'05		minimum elong	-3708 Jun 30 j 03:19	7° $\text{𐌹}$ 30'32	0°09'58
retrograde	-3714 Aug 06 j 03:33	24° $\text{𐌹}$ 01'58		behind sun begin	-3708 Jun 29 j 21:30	7° $\text{𐌹}$ 28'44	
opposition	-3714 Oct 11 j 20:22	20° $\text{𐌹}$ 30'50	-2°-50'-56	behind sun end	-3708 Jun 30 j 09:08	7° $\text{𐌹}$ 32'19	
min. Earth dist.	-3714 Oct 11 j 10:06	20° $\text{𐌹}$ 32'59	7.88767 AU	max. Earth dist.	-3708 Jun 30 j 14:52	7° $\text{𐌹}$ 34'07	10.42676 AU
direct	-3714 Dec 16 j 22:12	17° $\text{𐌹}$ 01'17		morning rise	-3708 Jul 17 j 18:48	9° $\text{𐌹}$ 41'28	
evening set	-3713 Mar 31 j 21:07	25° $\text{𐌹}$ 25'59		retrograde	-3708 Oct 26 j 01:38	17° $\text{𐌹}$ 10'33	
				opposition	-3707 Jan 01 j 05:36	13° $\text{𐌹}$ 48'08	0°31'27
conjunction	-3713 Apr 18 j 23:36	27° $\text{𐌹}$ 48'48	-2°-9'-59	min. Earth dist.	-3708 Dec 31 j 21:25	13° $\text{𐌹}$ 49'45	8.49873 AU
minimum elong	-3713 Apr 18 j 23:39	27° $\text{𐌹}$ 48'49	2°10'02	direct	-3707 Mar 11 j 20:14	10° $\text{𐌹}$ 20'25	
max. Earth dist.	-3713 Apr 19 j 14:07	27° $\text{𐌹}$ 53'36	9.89928 AU	evening set	-3707 Jun 25 j 20:02	18° $\text{𐌹}$ 05'55	
	-3713 May 05 j 14:22	0° $\text{𐌹}$					
morning rise	-3713 May 07 j 02:58	0° $\text{𐌹}$ 11'53		conjunction	-3707 Jul 13 j 11:39	20° $\text{𐌹}$ 14'59	0°41'14
retrograde	-3713 Aug 20 j 22:28	8° $\text{𐌹}$ 39'25		minimum elong	-3707 Jul 13 j 11:37	20° $\text{𐌹}$ 14'58	0°41'23
opposition	-3713 Oct 26 j 09:39	5° $\text{𐌹}$ 09'04	-2°-32'-10	max. Earth dist.	-3707 Jul 13 j 20:27	20° $\text{𐌹}$ 17'41	10.57261 AU
min. Earth dist.	-3713 Oct 25 j 22:35	5° $\text{𐌹}$ 11'24	7.92357 AU	morning rise	-3707 Jul 30 j 21:55	22° $\text{𐌹}$ 22'25	
direct	-3713 Dec 31 j 20:20	1° $\text{𐌹}$ 38'57		retrograde	-3707 Nov 07 j 12:08	29° $\text{𐌹}$ 40'46	
evening set	-3712 Apr 15 j 10:20	10° $\text{𐌹}$ 02'26		opposition	-3706 Jan 14 j 01:23	26° $\text{𐌹}$ 20'05	1°08'31
				min. Earth dist.	-3706 Jan 13 j 19:46	26° $\text{𐌹}$ 21'11	8.64394 AU
conjunction	-3712 May 03 j 14:18	12° $\text{𐌹}$ 24'41	-1°-51'-8	direct	-3706 Mar 25 j 05:39	22° $\text{𐌹}$ 53'38	
minimum elong	-3712 May 03 j 14:22	12° $\text{𐌹}$ 24'43	1°51'08		-3706 Jul 04 j 16:04	0° $\text{𐌹}$	
max. Earth dist.	-3712 May 04 j 05:34	12° $\text{𐌹}$ 29'42	9.95357 AU	evening set	-3706 Jul 08 j 21:21	0° $\text{𐌹}$ 29'47	
morning rise	-3712 May 21 j 17:49	14° $\text{𐌹}$ 46'43					
retrograde	-3712 Sep 03 j 09:24	23° $\text{𐌹}$ 04'44		conjunction	-3706 Jul 26 j 07:35	2° $\text{𐌹}$ 35'29	1°09'51
opposition	-3712 Nov 08 j 18:20	19° $\text{𐌹}$ 35'34	-2°-3'-57	minimum elong	-3706 Jul 26 j 07:33	2° $\text{𐌹}$ 35'28	1°10'01
min. Earth dist.	-3712 Nov 08 j 06:59	19° $\text{𐌹}$ 37'56	7.99392 AU	max. Earth dist.	-3706 Jul 26 j 12:50	2° $\text{𐌹}$ 37'04	10.71488 AU



# Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 17

Attention, astronomical year style is used: The year -3706 in astronomical counting style is the year 3707 BCE in historical counting style.

morning rise	-3706 Aug 12 j 12:35	4° $\mathfrak{E}$ 39'36		morning rise	-3700 Oct 18 j 05:28	12° $\mathfrak{M}$ 50'18	
retrograde	-3706 Nov 19 j 13:10	11° $\mathfrak{E}$ 48'46		retrograde	-3699 Jan 25 j 21:25	19° $\mathfrak{M}$ 40'13	
opposition	-3705 Jan 26 j 14:22	8° $\mathfrak{E}$ 29'39	1°41'17	opposition	-3699 Apr 06 j 08:57	16° $\mathfrak{M}$ 24'22	2°52'05
min. Earth dist.	-3705 Jan 26 j 11:14	8° $\mathfrak{E}$ 30'15	8.78251 AU	min. Earth dist.	-3699 Apr 06 j 18:31	16° $\mathfrak{M}$ 22'37	9.20701 AU
direct	-3705 Apr 07 j 08:29	5° $\mathfrak{E}$ 04'33		direct	-3699 Jun 16 j 23:04	13° $\mathfrak{M}$ 05'50	
evening set	-3705 Jul 21 j 11:49	12° $\mathfrak{E}$ 31'57		evening set	-3699 Sep 26 j 11:56	20° $\mathfrak{M}$ 02'13	
conjunction	-3705 Aug 07 j 16:36	14° $\mathfrak{E}$ 34'29	1°34'38	conjunction	-3699 Oct 12 j 21:14	21° $\mathfrak{M}$ 55'43	2°17'38
minimum elong	-3705 Aug 07 j 16:33	14° $\mathfrak{E}$ 34'28	1°34'47	minimum elong	-3699 Oct 12 j 21:15	21° $\mathfrak{M}$ 55'43	2°17'40
max. Earth dist.	-3705 Aug 07 j 18:20	14° $\mathfrak{E}$ 35'00	10.84723 AU	max. Earth dist.	-3699 Oct 12 j 09:11	21° $\mathfrak{M}$ 52'13	11.19710 AU
morning rise	-3705 Aug 24 j 16:26	16° $\mathfrak{E}$ 35'31		morning rise	-3699 Oct 29 j 05:17	23° $\mathfrak{M}$ 48'58	
retrograde	-3705 Dec 01 j 09:55	23° $\mathfrak{E}$ 37'13			-3698 Jan 08 j 01:54	0° $\mathfrak{E}$	
opposition	-3704 Feb 07 j 21:27	20° $\mathfrak{E}$ 19'24	2°08'45	retrograde	-3698 Feb 06 j 11:01	0° $\mathfrak{E}$ 41'36	
min. Earth dist.	-3704 Feb 07 j 20:07	20° $\mathfrak{E}$ 19'40	8.90841 AU		-3698 Mar 08 j 08:25	30° $\mathfrak{R}$ $\mathfrak{M}$	
direct	-3704 Apr 19 j 01:57	16° $\mathfrak{E}$ 55'43		opposition	-3698 Apr 18 j 04:41	27° $\mathfrak{M}$ 25'10	2°41'33
evening set	-3704 Aug 01 j 16:19	24° $\mathfrak{E}$ 15'09		min. Earth dist.	-3698 Apr 18 j 16:17	27° $\mathfrak{M}$ 23'03	9.18391 AU
				direct	-3698 Jun 28 j 12:12	24° $\mathfrak{M}$ 07'03	
conjunction	-3704 Aug 18 j 16:02	26° $\mathfrak{E}$ 14'54	1°54'52		-3698 Sep 28 j 04:32	0° $\mathfrak{E}$	
minimum elong	-3704 Aug 18 j 15:59	26° $\mathfrak{E}$ 14'53	1°55'00	evening set	-3698 Oct 07 j 12:32	1° $\mathfrak{E}$ 02'57	
max. Earth dist.	-3704 Aug 18 j 15:33	26° $\mathfrak{E}$ 14'45	10.96430 AU				
morning rise	-3704 Sep 04 j 10:59	28° $\mathfrak{E}$ 13'16		conjunction	-3698 Oct 23 j 21:43	2° $\mathfrak{E}$ 56'56	2°06'24
	-3704 Sep 20 j 06:33	0° $\mathfrak{Q}$		minimum elong	-3698 Oct 23 j 21:46	2° $\mathfrak{E}$ 56'57	2°06'24
retrograde	-3704 Dec 12 j 01:35	5° $\mathfrak{Q}$ 09'12		max. Earth dist.	-3698 Oct 23 j 07:10	2° $\mathfrak{E}$ 52'42	11.15995 AU
opposition	-3703 Feb 19 j 00:00	1° $\mathfrak{Q}$ 52'26	2°30'15	morning rise	-3698 Nov 09 j 06:49	4° $\mathfrak{E}$ 50'58	
min. Earth dist.	-3703 Feb 19 j 00:48	1° $\mathfrak{Q}$ 52'17	9.01673 AU	retrograde	-3697 Feb 18 j 04:45	11° $\mathfrak{E}$ 48'01	
	-3703 Mar 17 j 14:28	30° $\mathfrak{R}$ $\mathfrak{E}$		opposition	-3697 Apr 30 j 02:52	8° $\mathfrak{E}$ 30'42	2°24'58
direct	-3703 May 01 j 11:07	28° $\mathfrak{E}$ 30'06		min. Earth dist.	-3697 Apr 30 j 16:08	8° $\mathfrak{E}$ 28'17	9.13234 AU
	-3703 Jun 14 j 11:08	0° $\mathfrak{Q}$		direct	-3697 Jul 10 j 02:00	5° $\mathfrak{E}$ 12'46	
evening set	-3703 Aug 13 j 12:05	5° $\mathfrak{Q}$ 42'30		evening set	-3697 Oct 18 j 14:28	12° $\mathfrak{E}$ 09'38	
				max. Earth dist.	-3697 Nov 03 j 09:08	14° $\mathfrak{E}$ 00'08	11.09552 AU
conjunction	-3703 Aug 30 j 07:13	7° $\mathfrak{Q}$ 39'55	2°10'05				
minimum elong	-3703 Aug 30 j 07:11	7° $\mathfrak{Q}$ 39'54	2°10'12	conjunction	-3697 Nov 04 j 00:34	14° $\mathfrak{E}$ 04'41	1°50'19
max. Earth dist.	-3703 Aug 30 j 04:29	7° $\mathfrak{Q}$ 39'06	11.06167 AU	minimum elong	-3697 Nov 04 j 00:37	14° $\mathfrak{E}$ 04'41	1°50'17
morning rise	-3703 Sep 15 j 21:59	9° $\mathfrak{Q}$ 36'07		morning rise	-3697 Nov 20 j 11:34	16° $\mathfrak{E}$ 00'02	
	-3703 Nov 11 j 06:22	15° $\mathfrak{Q}$		retrograde	-3696 Mar 01 j 02:58	23° $\mathfrak{E}$ 03'10	
retrograde	-3703 Dec 23 j 14:37	16° $\mathfrak{Q}$ 28'01		opposition	-3696 May 11 j 04:29	19° $\mathfrak{E}$ 44'38	2°02'41
	-3702 Feb 05 j 04:58	15° $\mathfrak{R}$ $\mathfrak{Q}$		min. Earth dist.	-3696 May 11 j 17:59	19° $\mathfrak{E}$ 42'09	9.05458 AU
opposition	-3702 Mar 02 j 22:55	13° $\mathfrak{Q}$ 12'00	2°45'26	direct	-3696 Jul 20 j 17:45	16° $\mathfrak{E}$ 26'35	
min. Earth dist.	-3702 Mar 03 j 02:37	13° $\mathfrak{Q}$ 11'19	9.10349 AU	evening set	-3696 Oct 28 j 19:49	23° $\mathfrak{E}$ 25'56	
direct	-3702 May 13 j 14:40	9° $\mathfrak{Q}$ 50'53					
	-3702 Aug 07 j 07:16	15° $\mathfrak{Q}$		conjunction	-3696 Nov 14 j 07:48	25° $\mathfrak{E}$ 22'34	1°29'45
evening set	-3702 Aug 25 j 00:53	16° $\mathfrak{Q}$ 57'24		minimum elong	-3696 Nov 14 j 07:51	25° $\mathfrak{E}$ 22'35	1°29'41
				max. Earth dist.	-3696 Nov 13 j 17:05	25° $\mathfrak{E}$ 18'12	11.00638 AU
conjunction	-3702 Sep 10 j 16:03	18° $\mathfrak{Q}$ 52'59	2°20'02	morning rise	-3696 Nov 30 j 21:22	27° $\mathfrak{E}$ 19'46	
minimum elong	-3702 Sep 10 j 16:01	18° $\mathfrak{Q}$ 52'58	2°20'07		-3696 Dec 25 j 01:00	0° $\mathfrak{M}$	
max. Earth dist.	-3702 Sep 10 j 09:59	18° $\mathfrak{Q}$ 51'13	11.13594 AU	retrograde	-3695 Mar 13 j 10:10	4° $\mathfrak{M}$ 30'28	
morning rise	-3702 Sep 27 j 03:40	20° $\mathfrak{Q}$ 47'33		opposition	-3695 May 23 j 10:28	1° $\mathfrak{M}$ 10'29	1°35'10
retrograde	-3701 Jan 03 j 23:51	27° $\mathfrak{Q}$ 37'05		min. Earth dist.	-3695 May 23 j 23:04	1° $\mathfrak{M}$ 08'09	8.95366 AU
opposition	-3701 Mar 14 j 19:09	24° $\mathfrak{Q}$ 21'29	2°54'08		-3695 Jun 08 j 14:55	30° $\mathfrak{R}$ $\mathfrak{E}$	
min. Earth dist.	-3701 Mar 15 j 01:43	24° $\mathfrak{Q}$ 20'16	9.16560 AU	direct	-3695 Aug 01 j 12:27	27° $\mathfrak{E}$ 52'04	
direct	-3701 May 25 j 12:20	21° $\mathfrak{Q}$ 01'25			-3695 Sep 21 j 21:37	0° $\mathfrak{M}$	
evening set	-3701 Sep 05 j 08:03	28° $\mathfrak{Q}$ 03'16		evening set	-3695 Nov 09 j 06:26	4° $\mathfrak{M}$ 55'24	
conjunction	-3701 Sep 21 j 20:10	29° $\mathfrak{Q}$ 57'33	2°24'35	conjunction	-3695 Nov 25 j 20:53	6° $\mathfrak{M}$ 54'05	1°05'13
minimum elong	-3701 Sep 21 j 20:10	29° $\mathfrak{Q}$ 57'33	2°24'39	minimum elong	-3695 Nov 25 j 20:55	6° $\mathfrak{M}$ 54'06	1°05'08
max. Earth dist.	-3701 Sep 21 j 11:11	29° $\mathfrak{Q}$ 54'56	11.18450 AU	max. Earth dist.	-3695 Nov 25 j 06:28	6° $\mathfrak{M}$ 49'45	10.89584 AU
	-3701 Sep 22 j 04:37	0° $\mathfrak{M}$		morning rise	-3695 Dec 12 j 13:46	8° $\mathfrak{M}$ 53'37	
morning rise	-3701 Oct 08 j 05:39	1° $\mathfrak{M}$ 51'05			-3694 Feb 14 j 21:46	15° $\mathfrak{M}$	
retrograde	-3700 Jan 15 j 09:31	8° $\mathfrak{M}$ 39'58		retrograde	-3694 Mar 26 j 00:38	16° $\mathfrak{M}$ 13'16	
opposition	-3700 Mar 25 j 14:08	5° $\mathfrak{M}$ 24'24	2°56'20		-3694 May 04 j 22:03	15° $\mathfrak{R}$ $\mathfrak{M}$	
min. Earth dist.	-3700 Mar 25 j 22:21	5° $\mathfrak{M}$ 22'54	9.20068 AU	opposition	-3694 Jun 04 j 22:02	12° $\mathfrak{M}$ 51'40	1°03'05
direct	-3700 Jun 05 j 07:54	2° $\mathfrak{M}$ 05'12		min. Earth dist.	-3694 Jun 05 j 09:57	12° $\mathfrak{M}$ 49'26	8.83334 AU
evening set	-3700 Sep 15 j 11:02	9° $\mathfrak{M}$ 03'37		direct	-3694 Aug 13 j 08:52	9° $\mathfrak{M}$ 32'38	
					-3694 Nov 06 j 09:15	15° $\mathfrak{M}$	
conjunction	-3700 Oct 01 j 21:15	10° $\mathfrak{M}$ 57'13	2°23'45	evening set	-3694 Nov 21 j 00:18	16° $\mathfrak{M}$ 41'32	
minimum elong	-3700 Oct 01 j 21:16	10° $\mathfrak{M}$ 57'13	2°23'49				
max. Earth dist.	-3700 Oct 01 j 10:51	10° $\mathfrak{M}$ 54'12	11.20533 AU	conjunction	-3694 Dec 07 j 17:35	18° $\mathfrak{M}$ 42'39	0°37'24

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 18

Attention, astronomical year style is used: The year -3694 in astronomical counting style is the year 3695 BCE in historical counting style.

minimum elong	-3694 Dec 07 j 17:36	18° $\mathbb{M}$ 42'39	0°37'18	evening set	-3687 Feb 07 j 06:27	5° $\approx$ 24'45	
max. Earth dist.	-3694 Dec 07 j 03:27	18° $\mathbb{M}$ 38'22	10.76806 AU				
morning rise	-3694 Dec 24 j 14:23	20° $\mathbb{M}$ 44'53		conjunction	-3687 Feb 24 j 22:04	7° $\approx$ 43'26	-2°-8'-21
retrograde	-3693 Apr 07 j 22:25	28° $\mathbb{M}$ 14'50		minimum elong	-3687 Feb 24 j 22:01	7° $\approx$ 43'25	2°08'29
opposition	-3693 Jun 17 j 16:03	24° $\mathbb{M}$ 51'28	0°27'21	max. Earth dist.	-3687 Feb 25 j 01:34	7° $\approx$ 44'35	9.97818 AU
min. Earth dist.	-3693 Jun 18 j 03:10	24° $\mathbb{M}$ 49'22	8.69838 AU	morning rise	-3687 Mar 14 j 18:28	10° $\approx$ 03'39	
direct	-3693 Aug 25 j 12:55	21° $\mathbb{M}$ 31'35			-3687 Apr 25 j 21:01	15° $\approx$	
evening set	-3693 Dec 03 j 03:10	28° $\mathbb{M}$ 47'37		retrograde	-3687 Jun 30 j 18:47	18° $\approx$ 36'48	
	-3693 Dec 13 j 00:44	0° $\mathbb{Z}$		opposition	-3687 Sep 06 j 13:32	15° $\approx$ 05'11	-2°-49'-17
				min. Earth dist.	-3687 Sep 06 j 08:53	15° $\approx$ 06'09	7.94163 AU
conjunction	-3693 Dec 19 j 23:50	0° $\mathbb{Z}$ 51'30	0°07'16		-3687 Sep 07 j 14:35	15° $\approx$	
minimum elong	-3693 Dec 19 j 23:50	0° $\mathbb{Z}$ 51'30	0°07'09	direct	-3687 Nov 11 j 11:02	11° $\approx$ 37'48	
behind sun begin	-3693 Dec 19 j 17:19	0° $\mathbb{Z}$ 49'31			-3686 Jan 12 j 01:32	15° $\approx$	
behind sun end	-3693 Dec 20 j 06:21	0° $\mathbb{Z}$ 53'29		evening set	-3686 Feb 22 j 09:44	19° $\approx$ 52'32	
max. Earth dist.	-3693 Dec 19 j 11:12	0° $\mathbb{Z}$ 47'37	10.62818 AU				
morning rise	-3692 Jan 06 j 00:48	2° $\mathbb{Z}$ 56'45		conjunction	-3686 Mar 12 j 04:59	22° $\approx$ 13'19	-2°-19'-46
desc. node	-3692 Mar 16 j 10:02	9° $\mathbb{Z}$ 38'11		minimum elong	-3686 Mar 12 j 04:58	22° $\approx$ 13'18	2°19'53
retrograde	-3692 Apr 20 j 06:53	10° $\mathbb{Z}$ 38'01		max. Earth dist.	-3686 Mar 12 j 12:28	22° $\approx$ 15'48	9.90999 AU
opposition	-3692 Jun 29 j 17:14	7° $\mathbb{Z}$ 12'52	0°-10'-47	morning rise	-3686 Mar 30 j 04:16	24° $\approx$ 35'22	
min. Earth dist.	-3692 Jun 30 j 02:48	7° $\mathbb{Z}$ 11'01	8.55445 AU		-3686 May 15 j 16:40	0° $\mathbb{H}$	
direct	-3692 Sep 05 j 23:33	3° $\mathbb{Z}$ 51'55		retrograde	-3686 Jul 15 j 22:29	3° $\mathbb{H}$ 11'57	
evening set	-3692 Dec 14 j 16:44	11° $\mathbb{Z}$ 16'29			-3686 Sep 17 j 05:50	30° $\mathbb{R}$	
				opposition	-3686 Sep 21 j 05:03	29° $\approx$ 40'09	-2°-58'-16
conjunction	-3692 Dec 31 j 17:11	13° $\mathbb{Z}$ 23'24	0°-24'-9	min. Earth dist.	-3686 Sep 20 j 21:43	29° $\approx$ 41'41	7.89104 AU
minimum elong	-3692 Dec 31 j 17:10	13° $\mathbb{Z}$ 23'23	0°24'18	direct	-3686 Nov 26 j 01:51	26° $\approx$ 11'42	
max. Earth dist.	-3692 Dec 31 j 07:34	13° $\mathbb{Z}$ 20'24	10.48205 AU		-3685 Jan 30 j 21:37	0° $\mathbb{H}$	
morning rise	-3691 Jan 17 j 22:20	15° $\mathbb{Z}$ 31'51		evening set	-3685 Mar 09 j 20:30	4° $\mathbb{H}$ 32'52	
retrograde	-3691 May 04 j 01:29	23° $\mathbb{Z}$ 25'06					
opposition	-3691 Jul 13 j 02:00	19° $\mathbb{Z}$ 58'10	0°-49'-45	conjunction	-3685 Mar 27 j 19:12	6° $\mathbb{H}$ 55'06	-2°-22'-20
min. Earth dist.	-3691 Jul 13 j 08:48	19° $\mathbb{Z}$ 56'51	8.40782 AU	minimum elong	-3685 Mar 27 j 19:12	6° $\mathbb{H}$ 55'06	2°22'25
direct	-3691 Sep 18 j 17:30	16° $\mathbb{Z}$ 36'03		max. Earth dist.	-3685 Mar 28 j 06:33	6° $\mathbb{H}$ 58'52	9.87718 AU
evening set	-3691 Dec 27 j 18:37	24° $\mathbb{Z}$ 10'23		morning rise	-3685 Apr 14 j 20:47	9° $\mathbb{H}$ 18'14	
				retrograde	-3685 Jul 31 j 00:15	17° $\mathbb{H}$ 54'11	
conjunction	-3690 Jan 13 j 22:54	26° $\mathbb{Z}$ 20'25	0°-55'-12	opposition	-3685 Oct 05 j 21:35	14° $\mathbb{H}$ 22'42	-2°-55'-40
minimum elong	-3690 Jan 13 j 22:51	26° $\mathbb{Z}$ 20'24	0°55'22	min. Earth dist.	-3685 Oct 05 j 11:44	14° $\mathbb{H}$ 24'46	7.87710 AU
max. Earth dist.	-3690 Jan 13 j 16:28	26° $\mathbb{Z}$ 18'22	10.33631 AU	direct	-3685 Dec 10 j 21:22	10° $\mathbb{H}$ 53'26	
morning rise	-3690 Jan 31 j 08:07	28° $\mathbb{Z}$ 32'06		evening set	-3684 Mar 24 j 11:32	19° $\mathbb{H}$ 18'02	
	-3690 Feb 12 j 08:11	0° $\mathbb{Z}$					
retrograde	-3690 May 18 j 05:31	6° $\mathbb{Z}$ 37'23		conjunction	-3684 Apr 11 j 13:07	21° $\mathbb{H}$ 40'56	-2°-15'-37
opposition	-3690 Jul 26 j 18:27	3° $\mathbb{Z}$ 08'50	-1°-27'-30	minimum elong	-3684 Apr 11 j 13:10	21° $\mathbb{H}$ 40'57	2°15'40
min. Earth dist.	-3690 Jul 26 j 22:04	3° $\mathbb{Z}$ 08'07	8.26556 AU	max. Earth dist.	-3684 Apr 12 j 03:40	21° $\mathbb{H}$ 45'46	9.88238 AU
	-3690 Sep 15 j 13:12	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-3684 Apr 29 j 16:13	24° $\mathbb{H}$ 04'17	
direct	-3690 Oct 01 j 20:32	29° $\mathbb{Z}$ 45'26			-3684 Jun 20 j 19:35	0° $\mathbb{Y}$	
	-3690 Oct 17 j 23:59	0° $\mathbb{Z}$		retrograde	-3684 Aug 13 j 22:15	2° $\mathbb{Y}$ 35'28	
evening set	-3689 Jan 10 j 09:34	7° $\mathbb{Z}$ 30'19			-3684 Oct 08 j 09:45	30° $\mathbb{R}$ $\mathbb{H}$	
				opposition	-3684 Oct 19 j 12:34	29° $\mathbb{H}$ 04'46	-2°-41'-31
conjunction	-3689 Jan 27 j 17:39	9° $\mathbb{Z}$ 43'29	-1°-24'-13	min. Earth dist.	-3684 Oct 19 j 00:39	29° $\mathbb{H}$ 07'15	7.90099 AU
minimum elong	-3689 Jan 27 j 17:36	9° $\mathbb{Z}$ 43'27	1°24'23	direct	-3684 Dec 24 j 19:00	25° $\mathbb{H}$ 34'59	
max. Earth dist.	-3689 Jan 27 j 14:25	9° $\mathbb{Z}$ 42'26	10.19854 AU		-3683 Mar 07 j 01:04	0° $\mathbb{Y}$	
morning rise	-3689 Feb 14 j 06:52	11° $\mathbb{Z}$ 58'19		evening set	-3683 Apr 09 j 02:34	3° $\mathbb{Y}$ 59'42	
retrograde	-3689 Jun 01 j 19:30	20° $\mathbb{Z}$ 14'55					
opposition	-3689 Aug 09 j 18:37	16° $\mathbb{Z}$ 44'59	-2°-1'-41	conjunction	-3683 Apr 27 j 06:09	6° $\mathbb{Y}$ 22'23	-2°00'-9
min. Earth dist.	-3689 Aug 09 j 19:07	16° $\mathbb{Z}$ 44'53	8.13541 AU	minimum elong	-3683 Apr 27 j 06:13	6° $\mathbb{Y}$ 22'25	2°00'10
direct	-3689 Oct 15 j 07:49	13° $\mathbb{Z}$ 20'13		max. Earth dist.	-3683 Apr 27 j 23:01	6° $\mathbb{Y}$ 27'57	9.92531 AU
evening set	-3688 Jan 24 j 13:42	21° $\mathbb{Z}$ 15'53		morning rise	-3683 May 15 j 09:45	8° $\mathbb{Y}$ 45'02	
				retrograde	-3683 Aug 28 j 14:08	17° $\mathbb{Y}$ 07'52	
conjunction	-3688 Feb 11 j 01:34	23° $\mathbb{Z}$ 31'58	-1°-49'-15	opposition	-3683 Nov 02 j 23:57	13° $\mathbb{Y}$ 38'21	-2°-17'-3
minimum elong	-3688 Feb 11 j 01:31	23° $\mathbb{Z}$ 31'57	1°49'25	min. Earth dist.	-3683 Nov 02 j 10:47	13° $\mathbb{Y}$ 41'05	7.96111 AU
max. Earth dist.	-3688 Feb 11 j 01:31	23° $\mathbb{Z}$ 31'57	10.07663 AU	direct	-3682 Jan 08 j 16:34	10° $\mathbb{Y}$ 08'24	
morning rise	-3688 Feb 28 j 18:35	25° $\mathbb{Z}$ 49'43		evening set	-3682 Apr 24 j 13:26	18° $\mathbb{Y}$ 29'59	
	-3688 Apr 03 j 22:24	0° $\approx$					
retrograde	-3688 Jun 15 j 16:52	4° $\approx$ 15'57		conjunction	-3682 May 12 j 17:48	20° $\mathbb{Y}$ 51'31	-1°-37'-15
opposition	-3688 Aug 23 j 01:30	0° $\approx$ 44'58	-2°-29'-46	minimum elong	-3682 May 12 j 17:52	20° $\mathbb{Y}$ 51'32	1°37'13
min. Earth dist.	-3688 Aug 22 j 23:18	0° $\approx$ 45'25	8.02505 AU	max. Earth dist.	-3682 May 13 j 11:43	20° $\mathbb{Y}$ 57'22	10.00286 AU
	-3688 Sep 01 j 06:50	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-3682 May 30 j 20:43	23° $\mathbb{Y}$ 12'34	
direct	-3688 Oct 28 j 04:42	27° $\mathbb{Z}$ 18'50			-3682 Aug 03 j 15:32	0° $\mathbb{B}$	
	-3688 Dec 21 j 20:29	0° $\approx$		retrograde	-3682 Sep 11 j 21:16	1° $\mathbb{B}$ 24'23	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 19

Attention, astronomical year style is used: The year -3682 in astronomical counting style is the year 3683 BCE in historical counting style.

	-3682 Oct 21 j 12:41	30° $\mathbb{R}$ $\Upsilon$		max. Earth dist.	-3676 Aug 02 j 00:16	9° $\mathbb{E}$ 46'22	10.79514 AU
opposition	-3682 Nov 17 j 05:40	27° $\Upsilon$ 56'22	-1°-44'-29	morning rise	-3676 Aug 18 j 23:06	11° $\mathbb{E}$ 47'46	
min. Earth dist.	-3682 Nov 16 j 16:31	27° $\Upsilon$ 59'05	8.05318 AU	retrograde	-3676 Nov 25 j 21:02	18° $\mathbb{E}$ 52'39	
direct	-3681 Jan 23 j 11:36	24° $\Upsilon$ 26'34		opposition	-3675 Feb 02 j 02:13	15° $\mathbb{E}$ 34'31	1°57'44
	-3681 Apr 17 j 10:28	0° $\mathbb{R}$		min. Earth dist.	-3675 Feb 02 j 01:12	15° $\mathbb{E}$ 34'43	8.85698 AU
evening set	-3681 May 09 j 17:09	2° $\mathbb{R}$ 42'17		direct	-3675 Apr 14 j 00:58	12° $\mathbb{E}$ 10'23	
				evening set	-3675 Jul 27 j 23:00	19° $\mathbb{E}$ 33'21	
conjunction	-3681 May 27 j 20:52	5° $\mathbb{R}$ 01'50	-1°-8'-50				
minimum elong	-3681 May 27 j 20:55	5° $\mathbb{R}$ 01'51	1°08'46	conjunction	-3675 Aug 14 j 00:55	21° $\mathbb{E}$ 34'18	1°46'51
max. Earth dist.	-3681 May 28 j 14:05	5° $\mathbb{R}$ 07'23	10.10933 AU	minimum elong	-3675 Aug 14 j 00:51	21° $\mathbb{E}$ 34'18	1°46'59
morning rise	-3681 Jun 14 j 21:51	7° $\mathbb{R}$ 20'30		max. Earth dist.	-3675 Aug 14 j 00:21	21° $\mathbb{E}$ 34'08	10.91441 AU
	-3681 Sep 06 j 23:15	15° $\mathbb{R}$		morning rise	-3675 Aug 30 j 21:52	23° $\mathbb{E}$ 33'50	
retrograde	-3681 Sep 25 j 17:36	15° $\mathbb{R}$ 19'42			-3675 Nov 12 j 12:05	0° $\mathbb{R}$	
	-3681 Oct 14 j 11:24	15° $\mathbb{R}$ $\mathbb{R}$		retrograde	-3675 Dec 07 j 13:18	0° $\mathbb{R}$ 32'16	
opposition	-3681 Dec 01 j 04:08	11° $\mathbb{R}$ 53'25	-1°-6'-30		-3674 Jan 01 j 23:33	30° $\mathbb{R}$ $\mathbb{E}$	
min. Earth dist.	-3681 Nov 30 j 16:08	11° $\mathbb{R}$ 55'52	8.17065 AU	opposition	-3674 Feb 14 j 06:54	27° $\mathbb{E}$ 15'09	2°21'52
direct	-3680 Feb 07 j 02:26	8° $\mathbb{R}$ 24'02		min. Earth dist.	-3674 Feb 14 j 08:46	27° $\mathbb{E}$ 14'48	8.96850 AU
	-3680 May 10 j 21:53	15° $\mathbb{R}$		direct	-3674 Apr 26 j 14:23	23° $\mathbb{E}$ 52'10	
evening set	-3680 May 23 j 11:05	16° $\mathbb{R}$ 31'53			-3674 Jul 29 j 23:22	0° $\mathbb{R}$	
				evening set	-3674 Aug 08 j 22:42	1° $\mathbb{R}$ 07'49	
conjunction	-3680 Jun 10 j 12:38	18° $\mathbb{R}$ 48'46	0°-37'-5				
minimum elong	-3680 Jun 10 j 12:40	18° $\mathbb{R}$ 48'46	0°37'01	conjunction	-3674 Aug 25 j 19:42	3° $\mathbb{R}$ 06'15	2°04'16
max. Earth dist.	-3680 Jun 11 j 03:35	18° $\mathbb{R}$ 53'31	10.23703 AU	minimum elong	-3674 Aug 25 j 19:39	3° $\mathbb{R}$ 06'14	2°04'23
morning rise	-3680 Jun 28 j 10:27	21° $\mathbb{R}$ 04'26		max. Earth dist.	-3674 Aug 25 j 15:36	3° $\mathbb{R}$ 05'03	11.01581 AU
retrograde	-3680 Oct 08 j 02:02	28° $\mathbb{R}$ 50'39		morning rise	-3674 Sep 11 j 12:23	5° $\mathbb{R}$ 03'26	
opposition	-3680 Dec 13 j 18:49	25° $\mathbb{R}$ 26'10	0°-25'-57	retrograde	-3674 Dec 19 j 03:04	11° $\mathbb{R}$ 57'11	
min. Earth dist.	-3680 Dec 13 j 08:39	25° $\mathbb{R}$ 28'13	8.30525 AU	opposition	-3673 Feb 26 j 07:22	8° $\mathbb{R}$ 40'44	2°39'49
direct	-3679 Feb 20 j 10:14	21° $\mathbb{R}$ 57'29		min. Earth dist.	-3673 Feb 26 j 11:11	8° $\mathbb{R}$ 40'01	9.06006 AU
evening set	-3679 Jun 06 j 17:26	29° $\mathbb{R}$ 56'17		direct	-3673 May 08 j 22:37	5° $\mathbb{R}$ 18'50	
	-3679 Jun 07 j 05:35	0° $\mathbb{R}$		evening set	-3673 Aug 20 j 14:29	12° $\mathbb{R}$ 28'11	
conjunction	-3679 Jun 24 j 15:29	2° $\mathbb{R}$ 10'01	0°-4'-13	conjunction	-3673 Sep 06 j 07:20	14° $\mathbb{R}$ 24'36	2°16'29
minimum elong	-3679 Jun 24 j 15:30	2° $\mathbb{R}$ 10'01	0°04'07	minimum elong	-3673 Sep 06 j 07:18	14° $\mathbb{R}$ 24'36	2°16'35
behind sun begin	-3679 Jun 24 j 08:20	2° $\mathbb{R}$ 07'48		max. Earth dist.	-3673 Sep 06 j 01:12	14° $\mathbb{R}$ 22'49	11.09561 AU
behind sun end	-3679 Jun 24 j 22:39	2° $\mathbb{R}$ 12'15			-3673 Sep 11 j 08:21	15° $\mathbb{R}$	
max. Earth dist.	-3679 Jun 25 j 03:09	2° $\mathbb{R}$ 13'40	10.37709 AU	morning rise	-3673 Sep 22 j 20:20	16° $\mathbb{R}$ 19'57	
morning rise	-3679 Jul 12 j 09:08	4° $\mathbb{R}$ 22'21		retrograde	-3673 Dec 30 j 14:06	23° $\mathbb{R}$ 10'42	
asc. node	-3679 Aug 11 j 19:45	7° $\mathbb{R}$ 51'57		opposition	-3672 Mar 09 j 04:45	19° $\mathbb{R}$ 54'37	2°51'20
retrograde	-3679 Oct 21 j 00:55	11° $\mathbb{R}$ 56'11		min. Earth dist.	-3672 Mar 09 j 10:14	19° $\mathbb{R}$ 53'36	9.12845 AU
opposition	-3679 Dec 27 j 01:25	8° $\mathbb{R}$ 33'30	0°14'37	direct	-3672 May 19 j 22:34	16° $\mathbb{R}$ 33'43	
min. Earth dist.	-3679 Dec 26 j 17:06	8° $\mathbb{R}$ 35'09	8.44813 AU	evening set	-3672 Aug 30 j 23:55	23° $\mathbb{R}$ 37'54	
direct	-3678 Mar 06 j 09:19	5° $\mathbb{R}$ 05'48					
evening set	-3678 Jun 20 j 11:52	12° $\mathbb{R}$ 55'09		conjunction	-3672 Sep 16 j 13:28	25° $\mathbb{R}$ 32'50	2°23'21
				minimum elong	-3672 Sep 16 j 13:27	25° $\mathbb{R}$ 32'50	2°23'26
conjunction	-3678 Jul 08 j 05:31	15° $\mathbb{R}$ 05'34	0°28'04	max. Earth dist.	-3672 Sep 16 j 05:44	25° $\mathbb{R}$ 30'35	11.15124 AU
minimum elong	-3678 Jul 08 j 05:29	15° $\mathbb{R}$ 05'34	0°28'12	morning rise	-3672 Oct 02 j 23:43	27° $\mathbb{R}$ 26'54	
max. Earth dist.	-3678 Jul 08 j 13:53	15° $\mathbb{R}$ 08'09	10.52112 AU		-3672 Oct 26 j 11:53	0° $\mathbb{R}$	
morning rise	-3678 Jul 25 j 18:14	17° $\mathbb{R}$ 14'27		retrograde	-3671 Jan 10 j 00:30	4° $\mathbb{R}$ 16'22	
retrograde	-3678 Nov 02 j 14:50	24° $\mathbb{R}$ 37'06		opposition	-3671 Mar 21 j 00:25	1° $\mathbb{R}$ 00'21	2°56'19
opposition	-3677 Jan 09 j 00:11	21° $\mathbb{R}$ 16'08	0°53'07	min. Earth dist.	-3671 Mar 21 j 08:14	0° $\mathbb{R}$ 58'55	9.17161 AU
min. Earth dist.	-3677 Jan 08 j 17:44	21° $\mathbb{R}$ 17'24	8.59168 AU		-3671 Apr 03 j 22:25	30° $\mathbb{R}$ $\mathbb{R}$	
direct	-3677 Mar 19 j 23:23	17° $\mathbb{R}$ 49'34		direct	-3671 May 31 j 18:31	27° $\mathbb{R}$ 40'18	
evening set	-3677 Jul 03 j 18:31	25° $\mathbb{R}$ 29'38			-3671 Jul 26 j 06:49	0° $\mathbb{R}$	
				evening set	-3671 Sep 11 j 04:35	4° $\mathbb{R}$ 40'34	
conjunction	-3677 Jul 21 j 07:11	27° $\mathbb{R}$ 36'43	0°58'02				
minimum elong	-3677 Jul 21 j 07:09	27° $\mathbb{R}$ 36'42	0°58'11	conjunction	-3671 Sep 27 j 15:38	6° $\mathbb{R}$ 34'35	2°24'49
max. Earth dist.	-3677 Jul 21 j 12:57	27° $\mathbb{R}$ 38'29	10.66237 AU	minimum elong	-3671 Sep 27 j 15:39	6° $\mathbb{R}$ 34'35	2°24'53
morning rise	-3677 Aug 07 j 14:30	29° $\mathbb{R}$ 42'13		max. Earth dist.	-3671 Sep 27 j 05:15	6° $\mathbb{R}$ 31'34	11.18106 AU
	-3677 Aug 10 j 02:30	0° $\mathbb{E}$		morning rise	-3671 Oct 14 j 00:22	8° $\mathbb{R}$ 27'59	
retrograde	-3677 Nov 14 j 21:10	6° $\mathbb{E}$ 55'10		retrograde	-3670 Jan 21 j 10:28	15° $\mathbb{R}$ 17'47	
opposition	-3676 Jan 21 j 16:13	3° $\mathbb{E}$ 35'45	1°27'53	opposition	-3670 Apr 01 j 19:18	12° $\mathbb{R}$ 01'34	2°54'48
min. Earth dist.	-3676 Jan 21 j 12:07	3° $\mathbb{E}$ 36'33	8.72977 AU	min. Earth dist.	-3670 Apr 02 j 05:22	11° $\mathbb{R}$ 59'44	9.18820 AU
direct	-3676 Apr 01 j 05:00	0° $\mathbb{E}$ 10'24		direct	-3670 Jun 12 j 10:28	8° $\mathbb{R}$ 42'12	
evening set	-3676 Jul 15 j 13:56	7° $\mathbb{E}$ 41'35		evening set	-3670 Sep 22 j 06:22	15° $\mathbb{R}$ 39'55	
conjunction	-3676 Aug 01 j 21:13	9° $\mathbb{E}$ 45'27	1°24'35	conjunction	-3670 Oct 08 j 15:56	17° $\mathbb{R}$ 33'35	2°20'56
minimum elong	-3676 Aug 01 j 21:10	9° $\mathbb{E}$ 45'26	1°24'44	minimum elong	-3670 Oct 08 j 15:57	17° $\mathbb{R}$ 33'36	2°20'58

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 20

Attention, astronomical year style is used: The year -3670 in astronomical counting style is the year 3671 BCE in historical counting style.

max. Earth dist.	-3670 Oct 08 j 03:26	17° $\overline{\text{M}}$ 29'57	11.18419 AU	opposition	-3663 Jun 24 j 14:38	2° $\overline{\text{A}}$ 15'08	0°05'24
morning rise	-3670 Oct 25 j 00:11	19° $\overline{\text{M}}$ 26'54		min. Earth dist.	-3663 Jun 24 j 22:55	2° $\overline{\text{A}}$ 13'33	8.62431 AU
retrograde	-3669 Feb 01 j 21:49	26° $\overline{\text{M}}$ 18'44			-3663 Jul 26 j 22:39	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
opposition	-3669 Apr 13 j 14:32	23° $\overline{\text{M}}$ 02'01	2°46'55	desc. node	-3663 Aug 16 j 17:49	29° $\overline{\text{M}}$ 07'23	
min. Earth dist.	-3669 Apr 14 j 01:43	22° $\overline{\text{M}}$ 59'59	9.17766 AU	direct	-3663 Sep 01 j 02:43	28° $\overline{\text{M}}$ 55'05	
direct	-3669 Jun 24 j 01:48	19° $\overline{\text{M}}$ 43'10			-3663 Oct 06 j 09:33	0° $\overline{\text{A}}$	
evening set	-3669 Oct 03 j 06:54	26° $\overline{\text{M}}$ 39'44		evening set	-3663 Dec 09 j 18:58	6° $\overline{\text{A}}$ 15'42	
conjunction	-3669 Oct 19 j 16:09	28° $\overline{\text{M}}$ 33'38	2°11'50	conjunction	-3663 Dec 26 j 17:41	8° $\overline{\text{A}}$ 21'13	0°-10'-57
minimum elong	-3669 Oct 19 j 16:11	28° $\overline{\text{M}}$ 33'39	2°11'51	minimum elong	-3663 Dec 26 j 17:40	8° $\overline{\text{A}}$ 21'13	0°11'06
max. Earth dist.	-3669 Oct 19 j 03:19	28° $\overline{\text{M}}$ 29'53	11.16047 AU	behind sun begin	-3663 Dec 26 j 12:21	8° $\overline{\text{A}}$ 19'35	
	-3669 Nov 01 j 01:10	0° $\overline{\text{A}}$		behind sun end	-3663 Dec 26 j 23:00	8° $\overline{\text{A}}$ 22'51	
morning rise	-3669 Nov 05 j 00:46	0° $\overline{\text{A}}$ 27'26		max. Earth dist.	-3663 Dec 26 j 07:57	8° $\overline{\text{A}}$ 18'12	10.55501 AU
retrograde	-3668 Feb 13 j 15:23	7° $\overline{\text{A}}$ 22'56		morning rise	-3662 Jan 12 j 20:55	10° $\overline{\text{A}}$ 28'11	
opposition	-3668 Apr 24 j 11:41	4° $\overline{\text{A}}$ 05'29	2°32'50	retrograde	-3662 Apr 28 j 16:41	18° $\overline{\text{A}}$ 15'59	
min. Earth dist.	-3668 Apr 24 j 22:56	4° $\overline{\text{A}}$ 03'25	9.14029 AU	opposition	-3662 Jul 07 j 20:18	14° $\overline{\text{A}}$ 50'18	0°-33'-25
direct	-3668 Jul 04 j 16:16	0° $\overline{\text{A}}$ 47'01		min. Earth dist.	-3662 Jul 08 j 02:53	14° $\overline{\text{A}}$ 49'01	8.48315 AU
evening set	-3668 Oct 13 j 08:00	7° $\overline{\text{A}}$ 43'45		direct	-3662 Sep 13 j 16:37	11° $\overline{\text{A}}$ 29'15	
				evening set	-3662 Dec 22 j 15:32	18° $\overline{\text{A}}$ 58'55	
conjunction	-3668 Oct 29 j 17:50	9° $\overline{\text{A}}$ 38'28	1°57'45	conjunction	-3661 Jan 08 j 17:53	21° $\overline{\text{A}}$ 07'26	0°-42'-18
minimum elong	-3668 Oct 29 j 17:52	9° $\overline{\text{A}}$ 38'29	1°57'43	minimum elong	-3661 Jan 08 j 17:51	21° $\overline{\text{A}}$ 07'25	0°42'28
max. Earth dist.	-3668 Oct 29 j 04:31	9° $\overline{\text{A}}$ 34'33	11.11054 AU	max. Earth dist.	-3661 Jan 08 j 10:11	21° $\overline{\text{A}}$ 05'00	10.41322 AU
morning rise	-3668 Nov 15 j 03:51	11° $\overline{\text{A}}$ 33'20		morning rise	-3661 Jan 26 j 01:22	23° $\overline{\text{A}}$ 17'34	
retrograde	-3667 Feb 24 j 11:51	18° $\overline{\text{A}}$ 34'05			-3661 Apr 03 j 08:15	0° $\overline{\text{A}}$	
opposition	-3667 May 06 j 11:48	15° $\overline{\text{A}}$ 15'41	2°12'52	retrograde	-3661 May 12 j 16:04	1° $\overline{\text{A}}$ 17'11	
min. Earth dist.	-3667 May 06 j 23:40	15° $\overline{\text{A}}$ 13'30	9.07723 AU		-3661 Jun 21 j 13:03	30° $\overline{\text{R}}$ $\overline{\text{A}}$	
direct	-3667 Jul 16 j 04:50	11° $\overline{\text{A}}$ 57'21		opposition	-3661 Jul 21 j 09:42	27° $\overline{\text{A}}$ 49'55	-1°-11'-53
evening set	-3667 Oct 24 j 11:53	18° $\overline{\text{A}}$ 55'50		min. Earth dist.	-3661 Jul 21 j 14:28	27° $\overline{\text{A}}$ 48'59	8.34265 AU
				direct	-3661 Sep 26 j 16:25	24° $\overline{\text{A}}$ 27'40	
conjunction	-3667 Nov 09 j 23:00	20° $\overline{\text{A}}$ 51'51	1°38'59		-3661 Dec 18 j 12:42	0° $\overline{\text{A}}$	
minimum elong	-3667 Nov 09 j 23:02	20° $\overline{\text{A}}$ 51'51	1°38'56	evening set	-3660 Jan 05 j 00:44	2° $\overline{\text{A}}$ 07'21	
max. Earth dist.	-3667 Nov 09 j 08:36	20° $\overline{\text{A}}$ 47'35	11.03599 AU	conjunction	-3660 Jan 22 j 06:57	4° $\overline{\text{A}}$ 18'55	-1°-12'-22
morning rise	-3667 Nov 26 j 11:27	22° $\overline{\text{A}}$ 48'19		minimum elong	-3660 Jan 22 j 06:54	4° $\overline{\text{A}}$ 18'54	1°12'32
retrograde	-3666 Mar 08 j 14:53	29° $\overline{\text{A}}$ 55'51		max. Earth dist.	-3660 Jan 22 j 02:17	4° $\overline{\text{A}}$ 17'26	10.27504 AU
opposition	-3666 May 18 j 15:50	26° $\overline{\text{A}}$ 36'17	1°47'26	morning rise	-3660 Feb 08 j 18:29	6° $\overline{\text{A}}$ 32'12	
min. Earth dist.	-3666 May 19 j 04:21	26° $\overline{\text{A}}$ 33'58	8.99060 AU	retrograde	-3660 May 26 j 00:55	14° $\overline{\text{A}}$ 43'16	
direct	-3666 Jul 27 j 22:08	23° $\overline{\text{A}}$ 17'50		opposition	-3660 Aug 03 j 06:25	11° $\overline{\text{A}}$ 14'33	-1°-47'-48
	-3666 Nov 02 j 00:45	0° $\overline{\text{M}}$		min. Earth dist.	-3660 Aug 03 j 08:49	11° $\overline{\text{A}}$ 14'04	8.20933 AU
evening set	-3666 Nov 04 j 20:12	0° $\overline{\text{M}}$ 19'36		direct	-3660 Oct 09 j 00:57	7° $\overline{\text{A}}$ 50'58	
conjunction	-3666 Nov 21 j 09:24	2° $\overline{\text{M}}$ 17'25	1°16'01	evening set	-3659 Jan 17 j 23:00	15° $\overline{\text{A}}$ 41'11	
minimum elong	-3666 Nov 21 j 09:27	2° $\overline{\text{M}}$ 17'26	1°15'57	conjunction	-3659 Feb 04 j 09:10	17° $\overline{\text{A}}$ 55'46	-1°-39'-17
max. Earth dist.	-3666 Nov 20 j 19:05	2° $\overline{\text{M}}$ 13'09	10.93928 AU	minimum elong	-3659 Feb 04 j 09:06	17° $\overline{\text{A}}$ 55'45	1°39'26
morning rise	-3666 Dec 08 j 00:57	4° $\overline{\text{M}}$ 15'59		max. Earth dist.	-3659 Feb 04 j 07:58	17° $\overline{\text{A}}$ 55'22	10.14709 AU
retrograde	-3665 Mar 21 j 01:08	11° $\overline{\text{M}}$ 31'49		morning rise	-3659 Feb 22 j 00:27	20° $\overline{\text{A}}$ 12'01	
opposition	-3665 May 31 j 01:08	8° $\overline{\text{M}}$ 10'52	1°17'07	retrograde	-3659 Jun 09 j 18:40	28° $\overline{\text{A}}$ 33'25	
min. Earth dist.	-3665 May 31 j 13:07	8° $\overline{\text{M}}$ 08'38	8.88341 AU	opposition	-3659 Aug 17 j 10:07	25° $\overline{\text{A}}$ 03'30	-2°-18'-41
direct	-3665 Aug 08 j 18:21	4° $\overline{\text{M}}$ 52'07		min. Earth dist.	-3659 Aug 17 j 09:40	25° $\overline{\text{A}}$ 03'36	8.08991 AU
evening set	-3665 Nov 16 j 10:43	11° $\overline{\text{M}}$ 58'40		direct	-3659 Oct 22 j 17:58	21° $\overline{\text{A}}$ 38'34	
conjunction	-3665 Dec 03 j 02:47	13° $\overline{\text{M}}$ 58'43	0°49'27	evening set	-3658 Feb 01 j 10:04	29° $\overline{\text{A}}$ 39'20	
minimum elong	-3665 Dec 03 j 02:49	13° $\overline{\text{M}}$ 58'44	0°49'22		-3658 Feb 04 j 02:18	0° $\approx$	
max. Earth dist.	-3665 Dec 02 j 14:12	13° $\overline{\text{M}}$ 54'55	10.82378 AU	conjunction	-3658 Feb 19 j 00:02	1° $\approx$ 56'40	-2°-1'-4
	-3665 Dec 11 j 13:40	15° $\overline{\text{M}}$		minimum elong	-3658 Feb 18 j 23:59	1° $\approx$ 56'39	2°01'13
morning rise	-3665 Dec 19 j 21:50	15° $\overline{\text{M}}$ 59'46		max. Earth dist.	-3658 Feb 19 j 02:38	1° $\approx$ 57'31	10.03674 AU
retrograde	-3664 Apr 01 j 20:10	23° $\overline{\text{M}}$ 25'18		morning rise	-3658 Mar 08 j 18:42	4° $\approx$ 15'34	
opposition	-3664 Jun 11 j 16:32	20° $\overline{\text{M}}$ 02'49	0°42'45	retrograde	-3658 Jun 24 j 18:27	12° $\approx$ 45'17	
min. Earth dist.	-3664 Jun 12 j 02:43	20° $\overline{\text{M}}$ 00'54	8.75966 AU	opposition	-3658 Aug 31 j 19:44	9° $\approx$ 14'29	-2°-42'-3
direct	-3664 Aug 19 j 20:06	16° $\overline{\text{M}}$ 43'32		min. Earth dist.	-3658 Aug 31 j 16:01	9° $\approx$ 15'15	7.99226 AU
evening set	-3664 Nov 27 j 09:48	23° $\overline{\text{M}}$ 56'23		direct	-3658 Nov 05 j 20:02	5° $\approx$ 48'13	
conjunction	-3664 Dec 14 j 05:06	25° $\overline{\text{M}}$ 59'03	0°20'07	evening set	-3657 Feb 16 j 08:39	13° $\approx$ 58'32	
minimum elong	-3664 Dec 14 j 05:06	25° $\overline{\text{M}}$ 59'03	0°20'01		-3657 Feb 24 j 05:06	15° $\approx$	
max. Earth dist.	-3664 Dec 13 j 18:10	25° $\overline{\text{M}}$ 55'42	10.69390 AU	conjunction	-3657 Mar 06 j 02:20	16° $\approx$ 18'14	-2°-15'-54
morning rise	-3664 Dec 31 j 04:05	28° $\overline{\text{M}}$ 02'56		minimum elong	-3657 Mar 06 j 02:18	16° $\approx$ 18'13	2°16'01
	-3663 Jan 16 j 22:18	0° $\overline{\text{A}}$					
retrograde	-3663 Apr 15 j 02:12	5° $\overline{\text{A}}$ 39'12					

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 21

Attention, astronomical year style is used: The year -3657 in astronomical counting style is the year 3658 BCE in historical counting style.

max. Earth dist.	-3657 Mar 06 j 08:35	16° $\approx$ 20'18	9.95230 AU	opposition	-3651 Dec 08 j 08:23	19° $\text{U}$ 53'13	0°-43'-48
morning rise	-3657 Mar 24 j 00:06	18° $\approx$ 39'17		min. Earth dist.	-3651 Dec 07 j 21:02	19° $\text{U}$ 55'31	8.23613 AU
retrograde	-3657 Jul 09 j 21:39	27° $\approx$ 14'08		direct	-3650 Feb 14 j 17:27	16° $\text{U}$ 23'44	
opposition	-3657 Sep 15 j 09:36	23° $\approx$ 42'50	-2°-55'-41	evening set	-3650 Jun 01 j 00:03	24° $\text{U}$ 26'35	
min. Earth dist.	-3657 Sep 15 j 03:07	23° $\approx$ 44'11	7.92398 AU				
direct	-3657 Nov 20 j 06:12	20° $\approx$ 15'17		conjunction	-3650 Jun 19 j 00:02	26° $\text{U}$ 41'51	0°-18'-34
evening set	-3656 Mar 02 j 16:17	28° $\approx$ 33'13		minimum elong	-3650 Jun 19 j 00:02	26° $\text{U}$ 41'52	0°18'28
	-3656 Mar 13 j 16:28	0° $\text{X}$		max. Earth dist.	-3650 Jun 19 j 13:38	26° $\text{U}$ 46'08	10.30496 AU
				morning rise	-3650 Jul 06 j 19:39	28° $\text{U}$ 55'45	
conjunction	-3656 Mar 20 j 13:28	0° $\text{X}$ 54'43	-2°-22'-19		-3650 Jul 15 j 14:48	0° $\text{II}$	
minimum elong	-3656 Mar 20 j 13:28	0° $\text{X}$ 54'43	2°22'26	retrograde	-3650 Oct 15 j 21:36	6° $\text{II}$ 35'04	
max. Earth dist.	-3656 Mar 20 j 23:00	0° $\text{X}$ 57'52	9.90049 AU	opposition	-3650 Dec 21 j 18:10	3° $\text{II}$ 11'05	0°-2'-57
morning rise	-3656 Apr 07 j 13:53	3° $\text{X}$ 17'14		min. Earth dist.	-3650 Dec 21 j 08:26	3° $\text{II}$ 13'02	8.37457 AU
retrograde	-3656 Jul 24 j 00:53	11° $\text{X}$ 53'18		asc. node	-3649 Jan 18 j 11:41	1° $\text{II}$ 06'52	
opposition	-3656 Sep 29 j 01:34	8° $\text{X}$ 21'57	-2°-58'-7		-3649 Feb 10 j 09:18	30° $\text{R}$ $\text{U}$	
min. Earth dist.	-3656 Sep 28 j 17:00	8° $\text{X}$ 23'44	7.89035 AU	direct	-3649 Feb 28 j 18:41	29° $\text{U}$ 42'26	
direct	-3656 Dec 03 j 22:35	4° $\text{X}$ 53'17			-3649 Mar 19 j 05:44	0° $\text{II}$	
evening set	-3655 Mar 18 j 05:34	13° $\text{X}$ 16'06		evening set	-3649 Jun 14 j 23:33	7° $\text{II}$ 36'00	
conjunction	-3655 Apr 05 j 05:47	15° $\text{X}$ 38'38	-2°-19'-35	conjunction	-3649 Jul 02 j 19:29	9° $\text{II}$ 48'00	0°14'11
minimum elong	-3655 Apr 05 j 05:49	15° $\text{X}$ 38'39	2°19'39	minimum elong	-3649 Jul 02 j 19:28	9° $\text{II}$ 48'00	0°14'19
max. Earth dist.	-3655 Apr 05 j 18:02	15° $\text{X}$ 42'42	9.88533 AU	behind sun begin	-3649 Jul 02 j 16:14	9° $\text{II}$ 47'00	
morning rise	-3655 Apr 23 j 08:10	18° $\text{X}$ 01'49		behind sun end	-3649 Jul 02 j 22:43	9° $\text{II}$ 49'00	
retrograde	-3655 Aug 08 j 00:53	26° $\text{X}$ 34'56		max. Earth dist.	-3649 Jul 03 j 06:40	9° $\text{II}$ 51'28	10.44762 AU
opposition	-3655 Oct 13 j 17:03	23° $\text{X}$ 03'59	-2°-48'-53	morning rise	-3649 Jul 20 j 10:23	11° $\text{II}$ 58'28	
min. Earth dist.	-3655 Oct 13 j 07:01	23° $\text{X}$ 06'05	7.89395 AU	retrograde	-3649 Oct 28 j 15:02	19° $\text{II}$ 25'56	
direct	-3655 Dec 18 j 19:17	19° $\text{X}$ 34'27		opposition	-3648 Jan 03 j 20:04	16° $\text{II}$ 03'43	0°36'39
evening set	-3654 Apr 02 j 20:23	27° $\text{X}$ 58'55		min. Earth dist.	-3648 Jan 03 j 12:51	16° $\text{II}$ 05'09	8.51936 AU
	-3654 Apr 18 j 05:29	0° $\text{Y}$		direct	-3648 Mar 13 j 12:15	12° $\text{II}$ 36'07	
				evening set	-3648 Jun 27 j 11:07	20° $\text{II}$ 20'13	
conjunction	-3654 Apr 20 j 22:59	0° $\text{Y}$ 21'39	-2°-7'-48				
minimum elong	-3654 Apr 20 j 23:02	0° $\text{Y}$ 21'41	2°07'50	conjunction	-3648 Jul 15 j 02:04	22° $\text{II}$ 28'49	0°45'16
max. Earth dist.	-3654 Apr 21 j 13:08	0° $\text{Y}$ 26'20	9.90803 AU	minimum elong	-3648 Jul 15 j 02:02	22° $\text{II}$ 28'48	0°45'24
morning rise	-3654 May 09 j 02:28	2° $\text{Y}$ 44'35		max. Earth dist.	-3648 Jul 15 j 09:39	22° $\text{II}$ 31'08	10.59261 AU
retrograde	-3654 Aug 22 j 18:59	11° $\text{Y}$ 10'55		morning rise	-3648 Aug 01 j 11:49	24° $\text{II}$ 35'49	
opposition	-3654 Oct 28 j 05:46	7° $\text{Y}$ 40'48	-2°-28'-43		-3648 Sep 23 j 04:24	0° $\text{U}$	
min. Earth dist.	-3654 Oct 27 j 18:45	7° $\text{Y}$ 43'06	7.93454 AU	retrograde	-3648 Nov 08 j 22:40	1° $\text{U}$ 52'45	
direct	-3653 Jan 02 j 17:48	4° $\text{Y}$ 10'44			-3648 Dec 27 j 03:45	30° $\text{R}$ $\text{II}$	
evening set	-3653 Apr 18 j 08:43	12° $\text{Y}$ 33'33		opposition	-3647 Jan 15 j 14:42	28° $\text{II}$ 32'14	1°13'11
				min. Earth dist.	-3647 Jan 15 j 09:40	28° $\text{II}$ 33'13	8.66324 AU
conjunction	-3653 May 06 j 12:45	14° $\text{Y}$ 55'36	-1°-47'-57	direct	-3647 Mar 26 j 22:07	25° $\text{II}$ 05'52	
minimum elong	-3653 May 06 j 12:49	14° $\text{Y}$ 55'38	1°47'56		-3647 Jun 16 j 17:18	0° $\text{U}$	
max. Earth dist.	-3653 May 07 j 03:53	15° $\text{Y}$ 00'35	9.96675 AU	evening set	-3647 Jul 10 j 10:49	2° $\text{U}$ 40'43	
morning rise	-3653 May 24 j 16:15	17° $\text{Y}$ 17'24					
retrograde	-3653 Sep 06 j 04:23	25° $\text{Y}$ 33'52		conjunction	-3647 Jul 27 j 20:24	4° $\text{U}$ 45'58	1°13'24
opposition	-3653 Nov 11 j 13:30	22° $\text{Y}$ 04'57	-1°-59'-26	minimum elong	-3647 Jul 27 j 20:21	4° $\text{U}$ 45'57	1°13'33
min. Earth dist.	-3653 Nov 11 j 01:50	22° $\text{Y}$ 07'23	8.00891 AU	max. Earth dist.	-3647 Jul 28 j 00:38	4° $\text{U}$ 47'15	10.73306 AU
direct	-3652 Jan 17 j 14:57	18° $\text{Y}$ 34'43		morning rise	-3647 Aug 14 j 00:52	6° $\text{U}$ 49'40	
evening set	-3652 May 02 j 15:18	26° $\text{Y}$ 52'59		retrograde	-3647 Nov 21 j 00:31	13° $\text{U}$ 57'41	
				opposition	-3646 Jan 28 j 02:41	10° $\text{U}$ 38'39	1°45'15
conjunction	-3652 May 20 j 19:25	29° $\text{Y}$ 13'28	-1°-21'-43	min. Earth dist.	-3646 Jan 27 j 23:28	10° $\text{U}$ 39'16	8.79957 AU
minimum elong	-3652 May 20 j 19:29	29° $\text{Y}$ 13'29	1°21'40	direct	-3646 Apr 08 j 22:20	7° $\text{U}$ 13'40	
max. Earth dist.	-3652 May 21 j 10:46	29° $\text{Y}$ 18'26	10.05689 AU	evening set	-3646 Jul 22 j 23:47	14° $\text{U}$ 39'52	
	-3652 May 26 j 18:58	0° $\text{U}$					
morning rise	-3652 Jun 07 j 21:34	1° $\text{U}$ 33'15		conjunction	-3646 Aug 09 j 04:05	16° $\text{U}$ 42'02	1°37'35
retrograde	-3652 Sep 19 j 03:46	9° $\text{U}$ 37'52		minimum elong	-3646 Aug 09 j 04:02	16° $\text{U}$ 42'01	1°37'44
opposition	-3652 Nov 24 j 14:39	6° $\text{U}$ 10'27	-1°-23'-31	max. Earth dist.	-3646 Aug 09 j 05:44	16° $\text{U}$ 42'32	10.86284 AU
min. Earth dist.	-3652 Nov 24 j 02:44	6° $\text{U}$ 12'54	8.11170 AU	morning rise	-3646 Aug 26 j 03:19	18° $\text{U}$ 42'43	
direct	-3651 Jan 31 j 07:55	2° $\text{U}$ 40'26		retrograde	-3646 Dec 02 j 19:58	25° $\text{U}$ 43'29	
evening set	-3651 May 17 j 13:06	10° $\text{U}$ 51'47		opposition	-3645 Feb 09 j 08:52	22° $\text{U}$ 25'44	2°11'56
				min. Earth dist.	-3645 Feb 09 j 07:44	22° $\text{U}$ 25'57	8.92254 AU
conjunction	-3651 Jun 04 j 15:51	13° $\text{U}$ 09'57	0°-51'-11	direct	-3645 Apr 21 j 14:10	19° $\text{U}$ 02'08	
minimum elong	-3651 Jun 04 j 15:54	13° $\text{U}$ 09'58	0°51'07	evening set	-3645 Aug 04 j 03:08	26° $\text{U}$ 20'34	
max. Earth dist.	-3651 Jun 05 j 06:46	13° $\text{U}$ 14'43	10.17211 AU				
	-3651 Jun 19 j 01:18	15° $\text{U}$		conjunction	-3645 Aug 21 j 02:24	28° $\text{U}$ 20'00	1°57'10
morning rise	-3651 Jun 22 j 15:19	15° $\text{U}$ 27'02		minimum elong	-3645 Aug 21 j 02:21	28° $\text{U}$ 20'00	1°57'17
retrograde	-3651 Oct 02 j 17:02	23° $\text{U}$ 18'58		max. Earth dist.	-3645 Aug 21 j 01:48	28° $\text{U}$ 19'50	10.97666 AU

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 22

Attention, astronomical year style is used: The year -3645 in astronomical counting style is the year 3646 BCE in historical counting style.

	-3645 Sep 04 j 06:24	0°♈		max. Earth dist.	-3639 Oct 24 j 15:47	4°♊55'45	11.15112 AU
morning rise	-3645 Sep 06 j 20:48	0°♈18'06		morning rise	-3639 Nov 10 j 16:02	6°♊54'19	
retrograde	-3645 Dec 14 j 11:52	7°♈13'22		retrograde	-3638 Feb 19 j 14:53	13°♊52'10	
opposition	-3644 Feb 21 j 10:48	3°♈56'39	2°32'36	opposition	-3638 May 01 j 14:12	10°♊34'43	2°22'11
min. Earth dist.	-3644 Feb 21 j 12:38	3°♈56'19	9.02739 AU	min. Earth dist.	-3638 May 02 j 03:29	10°♊32'18	9.12194 AU
direct	-3644 May 02 j 22:51	0°♈34'22		direct	-3638 Jul 11 j 12:10	7°♊16'47	
evening set	-3644 Aug 14 j 22:03	7°♈46'01		evening set	-3638 Oct 19 j 23:48	14°♊14'07	
conjunction	-3644 Aug 31 j 16:41	9°♈43'11	2°11'40	conjunction	-3638 Nov 05 j 10:14	16°♊09'24	1°47'42
minimum elong	-3644 Aug 31 j 16:39	9°♈43'11	2°11'47	minimum elong	-3638 Nov 05 j 10:16	16°♊09'25	1°47'39
max. Earth dist.	-3644 Aug 31 j 12:49	9°♈42'03	11.07037 AU	max. Earth dist.	-3638 Nov 04 j 19:16	16°♊04'59	11.08363 AU
morning rise	-3644 Sep 17 j 07:07	11°♈39'11		morning rise	-3638 Nov 21 j 21:27	18°♊05'00	
	-3644 Oct 18 j 16:34	15°♈		retrograde	-3637 Mar 03 j 16:39	25°♊09'08	
retrograde	-3644 Dec 24 j 22:59	18°♈30'42		opposition	-3637 May 13 j 16:24	21°♊50'30	1°59'09
opposition	-3643 Mar 04 j 09:22	15°♈14'41	2°46'55	min. Earth dist.	-3637 May 14 j 05:26	21°♊48'06	9.04113 AU
min. Earth dist.	-3643 Mar 04 j 14:04	15°♈13'49	9.11037 AU	direct	-3637 Jul 23 j 05:08	18°♊32'28	
	-3643 Mar 07 j 16:48	15°♈♌		evening set	-3637 Oct 31 j 05:58	25°♊32'29	
direct	-3643 May 15 j 00:41	11°♈53'37		conjunction	-3637 Nov 16 j 18:16	27°♊29'24	1°26'32
	-3643 Jul 18 j 20:47	15°♈		minimum elong	-3637 Nov 16 j 18:19	27°♊29'25	1°26'29
evening set	-3643 Aug 26 j 10:07	18°♈59'37		max. Earth dist.	-3637 Nov 16 j 03:29	27°♊25'01	10.99158 AU
conjunction	-3643 Sep 12 j 00:53	20°♈55'01	2°20'54	morning rise	-3637 Dec 03 j 08:10	29°♊26'55	
minimum elong	-3643 Sep 12 j 00:52	20°♈55'01	2°20'59		-3637 Dec 08 j 02:42	0°♌	
max. Earth dist.	-3643 Sep 11 j 17:47	20°♈52'57	11.14081 AU	retrograde	-3636 Mar 15 j 00:02	6°♌38'50	
morning rise	-3643 Sep 28 j 12:21	22°♈49'29		opposition	-3636 May 24 j 23:26	3°♌18'45	1°30'57
retrograde	-3642 Jan 05 j 08:45	29°♈38'56		min. Earth dist.	-3636 May 25 j 12:01	3°♌16'25	8.93749 AU
opposition	-3642 Mar 16 j 05:21	26°♈23'17	2°54'45	direct	-3636 Aug 02 j 22:16	0°♌00'20	
min. Earth dist.	-3642 Mar 16 j 12:03	26°♈22'04	9.16858 AU	evening set	-3636 Nov 10 j 17:39	7°♌04'34	
direct	-3642 May 26 j 23:45	23°♈03'16		conjunction	-3636 Nov 27 j 08:21	9°♌03'34	1°01'30
	-3642 Sep 05 j 23:46	0°♐		minimum elong	-3636 Nov 27 j 08:23	9°♌03'35	1°01'25
evening set	-3642 Sep 06 j 16:44	0°♐04'49		max. Earth dist.	-3636 Nov 26 j 17:13	8°♌59'01	10.87864 AU
conjunction	-3642 Sep 23 j 04:45	1°♐59'02	2°24'43	morning rise	-3636 Dec 14 j 01:46	11°♌03'28	
minimum elong	-3642 Sep 23 j 04:45	1°♐59'02	2°24'47		-3635 Jan 19 j 15:02	15°♌	
max. Earth dist.	-3642 Sep 22 j 19:50	1°♐56'27	11.18551 AU	retrograde	-3635 Mar 27 j 14:36	18°♌24'34	
morning rise	-3642 Oct 09 j 14:04	3°♐52'32		opposition	-3635 Jun 06 j 12:09	15°♌02'50	0°58'17
retrograde	-3641 Jan 16 j 20:00	10°♐41'35		min. Earth dist.	-3635 Jun 07 j 00:33	15°♌00'30	8.81507 AU
opposition	-3641 Mar 28 j 00:17	7°♐25'57	2°56'03		-3635 Jun 07 j 03:12	15°♌♌	
min. Earth dist.	-3641 Mar 28 j 08:22	7°♐24'29	9.19977 AU	direct	-3635 Aug 14 j 21:17	11°♌43'45	
direct	-3641 Jun 07 j 17:46	4°♐06'50			-3635 Oct 17 j 18:43	15°♌	
evening set	-3641 Sep 17 j 19:36	11°♐05'08		evening set	-3635 Nov 22 j 12:50	18°♌53'45	
conjunction	-3641 Oct 04 j 05:48	12°♐58'46	2°23'10	conjunction	-3635 Dec 09 j 06:30	20°♌55'15	0°33'18
minimum elong	-3641 Oct 04 j 05:48	12°♐58'46	2°23'13	minimum elong	-3635 Dec 09 j 06:32	20°♌55'16	0°33'12
max. Earth dist.	-3641 Oct 03 j 19:23	12°♐55'44	11.20261 AU	max. Earth dist.	-3635 Dec 08 j 16:16	20°♌50'55	10.74911 AU
morning rise	-3641 Oct 20 j 13:56	14°♐51'53		morning rise	-3635 Dec 26 j 03:50	22°♌57'54	
retrograde	-3640 Jan 28 j 07:23	21°♐42'11			-3634 Mar 16 j 04:32	0°♌♌	
opposition	-3640 Apr 07 j 19:22	18°♐26'16	2°50'57	retrograde	-3634 Apr 09 j 14:58	0°♌♌29'24	
min. Earth dist.	-3640 Apr 08 j 05:26	18°♐24'26	9.20261 AU		-3634 May 04 j 06:33	30°♌♌	
direct	-3640 Jun 18 j 08:06	15°♐07'47		opposition	-3634 Jun 19 j 07:12	27°♌05'55	0°22'08
evening set	-3640 Sep 27 j 20:37	22°♐04'16		min. Earth dist.	-3634 Jun 19 j 18:29	27°♌03'46	8.67877 AU
conjunction	-3640 Oct 14 j 05:50	23°♐57'51	2°16'20	direct	-3634 Aug 27 j 02:24	23°♌45'56	
minimum elong	-3640 Oct 14 j 05:51	23°♐57'51	2°16'22		-3634 Nov 25 j 20:48	0°♌♌	
max. Earth dist.	-3640 Oct 13 j 16:54	23°♐54'05	11.19120 AU	evening set	-3634 Dec 04 j 17:09	1°♌♌03'14	
morning rise	-3640 Oct 30 j 14:04	25°♐51'13		conjunction	-3634 Dec 21 j 14:20	3°♌♌07'32	0°02'56
	-3640 Dec 10 j 02:00	0°♑		minimum elong	-3634 Dec 21 j 14:20	3°♌♌07'32	0°02'49
retrograde	-3639 Feb 07 j 21:31	2°♑44'26		behind sun begin	-3634 Dec 21 j 07:17	3°♌♌05'23	
	-3639 Apr 12 j 06:48	30°♑♐		behind sun end	-3634 Dec 21 j 21:22	3°♌♌09'41	
opposition	-3639 Apr 19 j 15:36	29°♑27'55	2°39'34	max. Earth dist.	-3634 Dec 21 j 02:33	3°♌♌03'54	10.60819 AU
min. Earth dist.	-3639 Apr 20 j 03:58	29°♑25'40	9.17650 AU	morning rise	-3633 Jan 07 j 15:42	5°♌♌13'12	
direct	-3639 Jun 29 j 22:02	26°♑09'49		desc. node	-3633 Jan 25 j 09:08	7°♌♌17'54	
	-3639 Sep 09 j 22:14	0°♑		retrograde	-3633 Apr 23 j 00:15	12°♌♌56'09	
evening set	-3639 Oct 08 j 21:21	3°♑05'57		opposition	-3633 Jul 02 j 09:33	9°♌♌30'49	0°-16'-13
conjunction	-3639 Oct 25 j 06:39	5°♑00'06	2°04'26	min. Earth dist.	-3633 Jul 02 j 18:28	9°♌♌29'06	8.53432 AU
minimum elong	-3639 Oct 25 j 06:41	5°♑00'06	2°04'25	direct	-3633 Sep 08 j 14:00	6°♌♌09'47	
				evening set	-3633 Dec 17 j 08:19	13°♌♌35'44	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 23

Attention, astronomical year style is used: The year -3632 in astronomical counting style is the year 3633 BCE in historical counting style.

conjunction	-3632 Jan 03 j 09:13	15°♌43'03	0°-28'-32		-3626 Jan 03 j 11:16	0°♏	
minimum elong	-3632 Jan 03 j 09:12	15°♌43'03	0°28'41	evening set	-3626 Mar 11 j 19:42	7°♏06'15	
max. Earth dist.	-3632 Jan 03 j 00:27	15°♌40'18	10.46198 AU				
morning rise	-3632 Jan 20 j 14:45	17°♌51'55		conjunction	-3626 Mar 29 j 18:46	9°♏28'34	-2°-21'-55
retrograde	-3632 May 05 j 20:15	25°♌46'52		minimum elong	-3626 Mar 29 j 18:47	9°♏28'34	2°22'00
opposition	-3632 Jul 14 j 19:33	22°♌19'45	0°-55'-7	max. Earth dist.	-3626 Mar 30 j 07:21	9°♏32'44	9.87706 AU
min. Earth dist.	-3632 Jul 15 j 01:23	22°♌18'36	8.38821 AU	morning rise	-3626 Apr 16 j 20:26	11°♏51'42	
direct	-3632 Sep 20 j 09:42	18°♌57'31		retrograde	-3626 Aug 01 j 21:08	20°♏27'05	
evening set	-3632 Dec 29 j 12:00	26°♌33'15		opposition	-3626 Oct 07 j 18:14	16°♏55'34	-2°-54'-21
				min. Earth dist.	-3626 Oct 07 j 07:31	16°♏57'49	7.87934 AU
conjunction	-3631 Jan 15 j 16:39	28°♌43'42	0°-59'-24	direct	-3626 Dec 12 j 18:00	13°♏26'10	
minimum elong	-3631 Jan 15 j 16:37	28°♌43'42	0°59'34	evening set	-3625 Mar 27 j 10:33	21°♏50'37	
max. Earth dist.	-3631 Jan 15 j 10:25	28°♌41'43	10.31732 AU				
	-3631 Jan 25 j 16:45	0°♏		conjunction	-3625 Apr 14 j 12:24	24°♏13'30	-2°-13'-59
morning rise	-3631 Feb 02 j 02:21	0°♏55'49		minimum elong	-3625 Apr 14 j 12:27	24°♏13'31	2°14'02
retrograde	-3631 May 20 j 02:36	9°♏02'39		max. Earth dist.	-3625 Apr 15 j 03:59	24°♏18'39	9.88696 AU
opposition	-3631 Jul 28 j 13:09	5°♏33'56	-1°-32'-30	morning rise	-3625 May 02 j 15:31	26°♏36'45	
min. Earth dist.	-3631 Jul 28 j 16:16	5°♏33'19	8.24760 AU		-3625 May 30 j 03:11	0°♐	
direct	-3631 Oct 03 j 12:48	2°♏10'21		retrograde	-3625 Aug 16 j 19:31	5°♐06'54	
evening set	-3630 Jan 12 j 04:42	9°♏56'40		opposition	-3625 Oct 22 j 08:39	1°♐36'13	-2°-38'-43
				min. Earth dist.	-3625 Oct 21 j 20:14	1°♐38'49	7.90771 AU
conjunction	-3630 Jan 29 j 13:06	12°♏10'11	-1°-27'-58		-3625 Nov 11 j 06:28	30°♑	
minimum elong	-3630 Jan 29 j 13:03	12°♏10'10	1°28'07	direct	-3625 Dec 27 j 15:33	28°♏06'21	
max. Earth dist.	-3630 Jan 29 j 09:46	12°♏09'06	10.18174 AU		-3624 Feb 11 j 10:29	0°♐	
morning rise	-3630 Feb 16 j 02:49	14°♏25'25		evening set	-3624 Apr 11 j 00:58	6°♐30'32	
retrograde	-3630 Jun 03 j 17:48	22°♏43'19					
opposition	-3630 Aug 11 j 14:18	19°♏13'14	-2°-5'-58	conjunction	-3624 Apr 29 j 04:42	8°♐53'05	-1°-57'-25
min. Earth dist.	-3630 Aug 11 j 14:46	19°♏13'08	8.12015 AU	minimum elong	-3624 Apr 29 j 04:46	8°♐53'06	1°57'26
direct	-3630 Oct 17 j 01:33	15°♏48'16		max. Earth dist.	-3624 Apr 29 j 22:02	8°♐58'48	9.93417 AU
evening set	-3629 Jan 26 j 10:20	23°♏45'16		morning rise	-3624 May 17 j 08:15	11°♐15'32	
				retrograde	-3624 Aug 30 j 10:18	19°♐36'59	
conjunction	-3629 Feb 12 j 22:31	26°♏01'38	-1°-52'-16	opposition	-3624 Nov 04 j 19:13	16°♐07'33	-2°-13'-2
minimum elong	-3629 Feb 12 j 22:28	26°♏01'37	1°52'25	min. Earth dist.	-3624 Nov 04 j 06:11	16°♐10'17	7.97173 AU
max. Earth dist.	-3629 Feb 12 j 22:45	26°♏01'43	10.06302 AU	direct	-3623 Jan 10 j 13:20	12°♐37'34	
morning rise	-3629 Mar 02 j 15:57	28°♏19'42		evening set	-3623 Apr 26 j 10:59	20°♐58'20	
	-3629 Mar 16 j 00:00	0°♑					
retrograde	-3629 Jun 18 j 14:41	6°♑46'53		conjunction	-3623 May 14 j 15:16	23°♐19'38	-1°-33'-39
opposition	-3629 Aug 25 j 21:57	3°♑15'47	-2°-32'-58	minimum elong	-3623 May 14 j 15:20	23°♐19'39	1°33'38
min. Earth dist.	-3629 Aug 25 j 19:45	3°♑16'14	8.01347 AU	max. Earth dist.	-3623 May 15 j 08:59	23°♐25'24	10.01526 AU
	-3629 Oct 17 j 11:39	30°♑		morning rise	-3623 Jun 01 j 18:03	25°♐40'24	
direct	-3629 Oct 31 j 01:11	29°♏49'27			-3623 Jul 08 j 12:20	0°♑	
	-3629 Nov 13 j 13:24	0°♑		retrograde	-3623 Sep 13 j 15:10	3°♑50'39	
evening set	-3628 Feb 10 j 04:18	7°♑56'27		opposition	-3623 Nov 18 j 23:57	0°♑22'48	-1°-39'-35
				min. Earth dist.	-3623 Nov 18 j 11:20	0°♑25'25	8.06699 AU
conjunction	-3628 Feb 27 j 20:19	10°♑15'22	-2°-10'-23		-3623 Nov 23 j 14:28	30°♑	
minimum elong	-3628 Feb 27 j 20:16	10°♑15'21	2°10'30	direct	-3622 Jan 25 j 08:17	26°♑53'01	
max. Earth dist.	-3628 Feb 28 j 00:39	10°♑16'48	9.96863 AU		-3622 Mar 27 j 05:38	0°♑	
morning rise	-3628 Mar 16 j 17:01	12°♑35'48		evening set	-3622 May 11 j 13:26	5°♑07'43	
	-3628 Apr 04 j 22:11	15°♑					
retrograde	-3628 Jul 02 j 15:53	21°♑09'27		conjunction	-3622 May 29 j 16:52	7°♑26'57	-1°-4'-40
opposition	-3628 Sep 08 j 10:25	17°♑37'44	-2°-51'-7	minimum elong	-3622 May 29 j 16:55	7°♑26'58	1°04'37
min. Earth dist.	-3628 Sep 08 j 05:22	17°♑38'47	7.93444 AU	max. Earth dist.	-3622 May 30 j 09:23	7°♑32'16	10.12456 AU
	-3628 Oct 14 j 12:27	15°♑		morning rise	-3622 Jun 16 j 17:38	9°♑45'16	
direct	-3628 Nov 13 j 09:00	14°♑10'10			-3622 Aug 02 j 16:23	15°♑	
	-3628 Dec 12 j 21:35	15°♑		retrograde	-3622 Sep 27 j 09:20	17°♑42'53	
evening set	-3627 Feb 24 j 08:29	22°♑25'37			-3622 Nov 24 j 00:12	15°♑	
				opposition	-3622 Dec 02 j 21:24	14°♑16'48	-1°-1'-6
conjunction	-3627 Mar 14 j 04:12	24°♑46'34	-2°-20'-38	min. Earth dist.	-3622 Dec 02 j 09:42	14°♑19'11	8.18702 AU
minimum elong	-3627 Mar 14 j 04:11	24°♑46'34	2°20'44	direct	-3621 Feb 08 j 21:45	10°♑47'31	
max. Earth dist.	-3627 Mar 14 j 12:51	24°♑49'26	9.90507 AU		-3621 Apr 22 j 12:33	15°♑	
morning rise	-3627 Apr 01 j 03:41	27°♑08'44		evening set	-3621 May 26 j 05:53	18°♑54'12	
	-3627 Apr 24 j 00:35	0°♑					
retrograde	-3627 Jul 17 j 19:04	5°♑45'16		conjunction	-3621 Jun 13 j 07:04	21°♑10'43	0°-32'-40
opposition	-3627 Sep 23 j 01:59	2°♑13'25	-2°-58'-33	minimum elong	-3621 Jun 13 j 07:05	21°♑10'43	0°32'34
min. Earth dist.	-3627 Sep 22 j 17:53	2°♑15'06	7.88856 AU	max. Earth dist.	-3621 Jun 13 j 21:24	21°♑15'15	10.25452 AU
	-3627 Oct 22 j 00:08	30°♑		morning rise	-3621 Jul 01 j 04:35	23°♑26'00	
direct	-3627 Nov 27 j 23:21	28°♑44'48			-3621 Sep 04 j 15:01	0°♒	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 24

Attention, astronomical year style is used: The year -3621 in astronomical counting style is the year 3622 BCE in historical counting style.

retrograde	-3621 Oct 10 j 17:20	1°II10'39		max. Earth dist.	-3615 Aug 27 j 01:28	5°Ω10'03	11.02829 AU
	-3621 Nov 16 j 07:00	30°R8		morning rise	-3615 Sep 12 j 21:59	7°Ω08'14	
opposition	-3621 Dec 16 j 10:56	27°846'24	0°-20'-24	retrograde	-3615 Dec 20 j 13:20	14°Ω01'33	
min. Earth dist.	-3621 Dec 16 j 00:29	27°848'30	8.32367 AU	opposition	-3614 Feb 27 j 18:15	10°Ω45'12	2°41'39
direct	-3620 Feb 23 j 04:11	24°817'52		min. Earth dist.	-3614 Feb 27 j 22:05	10°Ω44'30	9.07072 AU
	-3620 May 20 j 09:06	0°II		direct	-3614 May 10 j 09:10	7°Ω23'31	
evening set	-3620 Jun 08 j 10:50	2°II15'24		evening set	-3614 Aug 22 j 00:15	14°Ω32'12	
asc. node	-3620 Jun 23 j 08:21	4°II06'11			-3614 Aug 26 j 00:59	15°Ω	
conjunction	-3620 Jun 26 j 08:29	4°II28'44	0°00'17	conjunction	-3614 Sep 07 j 16:49	16°Ω28'27	2°17'39
minimum elong	-3620 Jun 26 j 08:28	4°II28'44	0°00'24	minimum elong	-3614 Sep 07 j 16:48	16°Ω28'26	2°17'44
behind sun begin	-3620 Jun 26 j 01:14	4°II26'30		max. Earth dist.	-3614 Sep 07 j 10:36	16°Ω26'38	11.10426 AU
behind sun end	-3620 Jun 26 j 15:42	4°II30'58		morning rise	-3614 Sep 24 j 05:25	18°Ω23'37	
max. Earth dist.	-3620 Jun 26 j 20:07	4°II32'21	10.39643 AU	retrograde	-3613 Jan 01 j 00:17	25°Ω14'09	
morning rise	-3620 Jul 14 j 01:37	6°II40'37		opposition	-3613 Mar 11 j 15:20	21°Ω58'09	2°52'17
retrograde	-3620 Oct 22 j 14:32	14°II12'55		min. Earth dist.	-3613 Mar 11 j 21:39	21°Ω56'59	9.13510 AU
opposition	-3620 Dec 28 j 16:21	10°II50'28	0°19'58	direct	-3613 May 22 j 09:10	18°Ω37'24	
min. Earth dist.	-3620 Dec 28 j 07:28	10°II52'13	8.46812 AU	evening set	-3613 Sep 02 j 09:15	25°Ω41'10	
direct	-3619 Mar 08 j 02:37	7°II22'56					
evening set	-3619 Jun 22 j 03:43	15°II10'56		conjunction	-3613 Sep 18 j 22:29	27°Ω35'59	2°23'47
				minimum elong	-3613 Sep 18 j 22:29	27°Ω35'59	2°23'51
conjunction	-3619 Jul 09 j 20:53	17°II20'54	0°32'15	max. Earth dist.	-3613 Sep 18 j 13:39	27°Ω33'25	11.15575 AU
minimum elong	-3619 Jul 09 j 20:52	17°II20'54	0°32'23	morning rise	-3613 Oct 05 j 08:35	29°Ω29'58	
max. Earth dist.	-3619 Jul 10 j 05:48	17°II23'38	10.54154 AU		-3613 Oct 09 j 18:41	0°൬	
morning rise	-3619 Jul 27 j 08:55	19°II29'19		retrograde	-3612 Jan 12 j 10:14	6°൬19'25	
retrograde	-3619 Nov 04 j 03:35	26°II50'32		opposition	-3612 Mar 22 j 10:58	3°൬03'27	2°56'23
opposition	-3618 Jan 10 j 14:10	23°II29'48	0°58'01	min. Earth dist.	-3612 Mar 22 j 19:58	3°൬01'48	9.17400 AU
min. Earth dist.	-3618 Jan 10 j 07:44	23°II31'03	8.61214 AU		-3612 May 14 j 10:20	30°RΩ	
direct	-3618 Mar 21 j 15:15	20°II03'25		direct	-3612 Jun 02 j 04:28	29°Ω43'29	
evening set	-3618 Jul 05 j 08:43	27°II42'07			-3612 Jun 20 j 20:18	0°൬	
				evening set	-3612 Sep 12 j 13:38	6°൬43'33	
conjunction	-3618 Jul 22 j 20:48	29°II48'46	1°01'48	conjunction	-3612 Sep 29 j 00:27	8°൬37'31	2°24'31
minimum elong	-3618 Jul 22 j 20:46	29°II48'45	1°01'57	minimum elong	-3612 Sep 29 j 00:28	8°൬37'31	2°24'34
max. Earth dist.	-3618 Jul 23 j 02:44	29°II50'34	10.68245 AU	max. Earth dist.	-3612 Sep 28 j 12:59	8°൬34'11	11.18130 AU
	-3618 Jul 24 j 09:49	0°☾		morning rise	-3612 Oct 15 j 09:12	10°൬30'55	
morning rise	-3618 Aug 09 j 03:26	1°☾53'48		retrograde	-3611 Jan 22 j 19:27	17°൬20'59	
retrograde	-3618 Nov 16 j 09:55	9°☾05'32		opposition	-3611 Apr 03 j 06:00	14°൬04'43	2°54'00
opposition	-3617 Jan 23 j 05:11	5°☾46'20	1°32'09	min. Earth dist.	-3611 Apr 03 j 16:24	14°൬02'48	9.18625 AU
min. Earth dist.	-3617 Jan 23 j 01:55	5°☾46'58	8.74925 AU	direct	-3611 Jun 13 j 21:01	10°൬45'23	
direct	-3617 Apr 03 j 17:48	2°☾21'11		evening set	-3611 Sep 23 j 15:16	17°൬43'04	
evening set	-3617 Jul 18 j 02:48	9°☾51'09					
conjunction	-3617 Aug 04 j 09:25	11°☾54'37	1°27'47	conjunction	-3611 Oct 10 j 00:54	19°൬36'47	2°19'54
minimum elong	-3617 Aug 04 j 09:22	11°☾54'37	1°27'56	minimum elong	-3611 Oct 10 j 00:55	19°൬36'47	2°19'56
max. Earth dist.	-3617 Aug 04 j 11:29	11°☾55'15	10.81355 AU	max. Earth dist.	-3611 Oct 09 j 12:28	19°൬33'10	11.18011 AU
morning rise	-3617 Aug 21 j 10:46	13°☾56'34		morning rise	-3611 Oct 26 j 09:09	21°൬30'10	
retrograde	-3617 Nov 28 j 06:36	21°☾00'25		retrograde	-3610 Feb 03 j 09:44	28°൬22'28	
opposition	-3616 Feb 04 j 14:13	17°☾42'30	2°01'15	opposition	-3610 Apr 15 j 01:27	25°൬05'39	2°45'15
min. Earth dist.	-3616 Feb 04 j 14:02	17°☾42'32	8.87432 AU	min. Earth dist.	-3610 Apr 15 j 12:28	25°൬03'38	9.17140 AU
direct	-3616 Apr 15 j 14:15	14°☾18'33		direct	-3610 Jun 25 j 12:46	21°൬46'48	
evening set	-3616 Jul 29 j 10:39	21°☾40'32		evening set	-3610 Oct 04 j 15:59	28°൬43'29	
					-3610 Oct 15 j 16:50	0°Ω	
conjunction	-3616 Aug 15 j 11:55	23°☾41'08	1°49'25	conjunction	-3610 Oct 21 j 01:24	0°Ω37'32	2°10'07
minimum elong	-3616 Aug 15 j 11:52	23°☾41'07	1°49'33	minimum elong	-3610 Oct 21 j 01:26	0°Ω37'32	2°10'07
max. Earth dist.	-3616 Aug 15 j 10:07	23°☾40'36	10.93022 AU	max. Earth dist.	-3610 Oct 20 j 12:26	0°Ω33'45	11.15214 AU
morning rise	-3616 Sep 01 j 08:26	25°☾40'20		morning rise	-3610 Nov 06 j 10:08	2°Ω31'29	
	-3616 Oct 12 j 23:09	0°Ω		retrograde	-3609 Feb 15 j 02:14	9°Ω27'38	
retrograde	-3616 Dec 08 j 23:28	2°Ω38'04		opposition	-3609 Apr 26 j 23:03	6°Ω10'02	2°30'21
	-3615 Feb 07 j 01:40	30°R☾		min. Earth dist.	-3609 Apr 27 j 10:49	6°Ω07'53	9.12986 AU
opposition	-3615 Feb 15 j 18:15	29°☾21'07	2°24'34	direct	-3609 Jul 07 j 01:22	2°Ω51'30	
min. Earth dist.	-3615 Feb 15 j 20:12	29°☾20'44	8.98280 AU	evening set	-3609 Oct 15 j 17:34	9°Ω48'37	
direct	-3615 Apr 28 j 03:58	25°☾58'20					
	-3615 Jul 11 j 12:43	0°Ω		conjunction	-3609 Nov 01 j 03:29	11°Ω43'31	1°55'22
evening set	-3615 Aug 10 j 09:12	3°Ω13'08		minimum elong	-3609 Nov 01 j 03:32	11°Ω43'31	1°55'20
conjunction	-3615 Aug 27 j 05:46	5°Ω11'19	2°06'08	max. Earth dist.	-3609 Oct 31 j 13:09	11°Ω39'18	11.09826 AU
minimum elong	-3615 Aug 27 j 05:44	5°Ω11'18	2°06'15	morning rise	-3609 Nov 17 j 13:51	13°Ω38'36	



## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 25

Attention, astronomical year style is used: The year -3608 in astronomical counting style is the year 3609 BCE in historical counting style.

retrograde	-3608 Feb 27 j 00:01	20° <del>4</del> 40'15		minimum elong	-3602 Jan 10 j 11:13	23° <del>2</del> 29'20	0°46'47
opposition	-3608 May 07 j 23:52	17° <del>4</del> 21'39	2°09'37	max. Earth dist.	-3602 Jan 10 j 04:21	23° <del>2</del> 27'10	10.39053 AU
min. Earth dist.	-3608 May 08 j 12:38	17° <del>4</del> 19'18	9.06305 AU	morning rise	-3602 Jan 27 j 19:12	25° <del>2</del> 39'57	
direct	-3608 Jul 17 j 16:18	14° <del>4</del> 03'11			-3602 Mar 07 j 00:23	0° <del>3</del>	
evening set	-3608 Oct 25 j 22:01	21° <del>4</del> 02'15		retrograde	-3602 May 14 j 11:55	3° <del>3</del> 41'23	
				opposition	-3602 Jul 23 j 04:16	0° <del>3</del> 13'54	-1°-17'-7
conjunction	-3608 Nov 11 j 09:21	22° <del>4</del> 58'32	1°36'00	min. Earth dist.	-3602 Jul 23 j 08:34	0° <del>3</del> 13'03	8.32092 AU
minimum elong	-3608 Nov 11 j 09:24	22° <del>4</del> 58'32	1°35'57		-3602 Jul 26 j 02:44	30° <del>2</del> 13'17	
max. Earth dist.	-3608 Nov 10 j 18:29	22° <del>4</del> 54'07	11.02021 AU	direct	-3602 Sep 28 j 09:42	26° <del>2</del> 51'28	
morning rise	-3608 Nov 27 j 22:15	24° <del>4</del> 55'18			-3602 Nov 27 j 18:41	0° <del>3</del>	
	-3607 Jan 17 j 16:25	0° <del>2</del>		evening set	-3601 Jan 06 j 19:27	4° <del>3</del> 32'47	
retrograde	-3607 Mar 10 j 03:16	2° <del>2</del> 00'35'57					
	-3607 May 02 j 16:10	30° <del>2</del> 13'17		conjunction	-3601 Jan 24 j 02:10	6° <del>3</del> 44'48	-1°-16'-21
opposition	-3607 May 20 j 04:42	28° <del>4</del> 44'08	1°43'28	minimum elong	-3601 Jan 24 j 02:07	6° <del>3</del> 44'47	1°16'31
min. Earth dist.	-3607 May 20 j 17:30	28° <del>4</del> 41'46	8.97318 AU	max. Earth dist.	-3601 Jan 23 j 22:58	6° <del>3</del> 43'46	10.25452 AU
direct	-3607 Jul 29 j 09:23	25° <del>4</del> 25'32		morning rise	-3601 Feb 10 j 14:02	8° <del>3</del> 58'31	
	-3607 Oct 15 j 05:21	0° <del>2</del>		retrograde	-3601 May 28 j 22:57	17° <del>3</del> 11'15	
evening set	-3607 Nov 06 j 07:06	2° <del>2</del> 28'05		opposition	-3601 Aug 06 j 02:12	13° <del>3</del> 42'20	-1°-52'-27
				min. Earth dist.	-3601 Aug 06 j 03:23	13° <del>3</del> 42'06	8.19071 AU
conjunction	-3607 Nov 22 j 20:47	4° <del>2</del> 26'14	1°12'30	direct	-3601 Oct 11 j 18:54	10° <del>3</del> 18'37	
minimum elong	-3607 Nov 22 j 20:49	4° <del>2</del> 26'15	1°12'26	evening set	-3600 Jan 20 j 19:27	18° <del>3</del> 10'21	
max. Earth dist.	-3607 Nov 22 j 07:00	4° <del>2</del> 22'06	10.92048 AU				
morning rise	-3607 Dec 09 j 12:42	6° <del>2</del> 25'08		conjunction	-3600 Feb 07 j 06:02	20° <del>3</del> 25'18	-1°-42'-39
retrograde	-3606 Mar 22 j 15:11	13° <del>2</del> 42'20		minimum elong	-3600 Feb 07 j 05:59	20° <del>3</del> 25'17	1°42'48
opposition	-3606 Jun 01 j 14:50	10° <del>2</del> 21'05	1°12'33	max. Earth dist.	-3600 Feb 07 j 06:16	20° <del>3</del> 25'23	10.13045 AU
min. Earth dist.	-3606 Jun 02 j 02:18	10° <del>2</del> 18'56	8.86325 AU	morning rise	-3600 Feb 24 j 21:38	22° <del>3</del> 41'55	
direct	-3606 Aug 10 j 07:12	7° <del>2</del> 02'09			-3600 May 07 j 11:52	0° <del>2</del>	
evening set	-3606 Nov 17 j 22:51	14° <del>2</del> 09'43		retrograde	-3600 Jun 11 j 17:20	1° <del>2</del> 04'38	
	-3606 Nov 24 j 23:14	15° <del>2</del>			-3600 Jul 17 j 04:51	30° <del>2</del> 13'17	
				opposition	-3600 Aug 19 j 06:52	27° <del>3</del> 34'34	-2°-22'-24
conjunction	-3606 Dec 04 j 15:20	16° <del>2</del> 10'09	0°45'30	min. Earth dist.	-3600 Aug 19 j 05:08	27° <del>3</del> 34'55	8.07578 AU
minimum elong	-3606 Dec 04 j 15:22	16° <del>2</del> 10'10	0°45'24	direct	-3600 Oct 24 j 13:39	24° <del>3</del> 09'29	
max. Earth dist.	-3606 Dec 04 j 02:55	16° <del>2</del> 06'24	10.80252 AU		-3599 Jan 16 j 18:06	0° <del>2</del>	
morning rise	-3606 Dec 21 j 10:48	18° <del>2</del> 11'36		evening set	-3599 Feb 03 j 08:11	2° <del>2</del> 11'31	
retrograde	-3605 Apr 04 j 13:14	25° <del>2</del> 38'40					
opposition	-3605 Jun 14 j 07:18	22° <del>2</del> 15'54	0°37'41	conjunction	-3599 Feb 20 j 22:30	4° <del>2</del> 29'09	-2°-3'-32
min. Earth dist.	-3605 Jun 14 j 17:06	22° <del>2</del> 14'02	8.73744 AU	minimum elong	-3599 Feb 20 j 22:27	4° <del>2</del> 29'09	2°03'41
direct	-3605 Aug 22 j 08:46	18° <del>2</del> 56'25		max. Earth dist.	-3599 Feb 21 j 01:47	4° <del>2</del> 30'14	10.02490 AU
evening set	-3605 Nov 29 j 23:18	26° <del>2</del> 10'30		morning rise	-3599 Mar 10 j 17:30	6° <del>2</del> 48'20	
					-3599 Jun 08 j 01:43	15° <del>2</del>	
conjunction	-3605 Dec 16 j 18:56	28° <del>2</del> 13'34	0°15'52	retrograde	-3599 Jun 26 j 17:25	15° <del>2</del> 18'51	
minimum elong	-3605 Dec 16 j 18:56	28° <del>2</del> 13'34	0°15'46		-3599 Jul 15 j 09:27	15° <del>2</del> 13'17	
behind sun begin	-3605 Dec 16 j 17:16	28° <del>2</del> 13'03		opposition	-3599 Sep 02 j 17:03	11° <del>2</del> 47'59	-2°-44'-29
behind sun end	-3605 Dec 16 j 20:37	28° <del>2</del> 14'04		min. Earth dist.	-3599 Sep 02 j 12:43	11° <del>2</del> 48'53	7.98295 AU
max. Earth dist.	-3605 Dec 16 j 07:30	28° <del>2</del> 10'04	10.67107 AU	direct	-3599 Nov 07 j 16:28	8° <del>2</del> 21'36	
	-3605 Dec 31 j 07:07	0° <del>2</del>			-3598 Feb 06 j 03:24	15° <del>2</del>	
morning rise	-3604 Jan 02 j 18:29	0° <del>2</del> 17'54		evening set	-3598 Feb 18 j 07:57	16° <del>2</del> 32'56	
retrograde	-3604 Apr 16 j 19:14	7° <del>2</del> 55'52					
opposition	-3604 Jun 26 j 06:46	4° <del>2</del> 31'32	0°00'02	conjunction	-3598 Mar 08 j 01:54	18° <del>2</del> 52'51	-2°-17'-15
desc. node	-3604 Jun 26 j 15:04	4° <del>2</del> 29'56		minimum elong	-3598 Mar 08 j 01:52	18° <del>2</del> 52'50	2°17'22
min. Earth dist.	-3604 Jun 26 j 15:10	4° <del>2</del> 29'55	8.60104 AU	max. Earth dist.	-3598 Mar 08 j 08:13	18° <del>2</del> 54'56	9.94531 AU
direct	-3604 Sep 02 j 15:56	1° <del>2</del> 11'15		morning rise	-3598 Mar 26 j 00:00	21° <del>2</del> 14'06	
evening set	-3604 Dec 11 j 10:00	8° <del>2</del> 33'19		retrograde	-3598 Jul 11 j 20:50	29° <del>2</del> 49'16	
				opposition	-3598 Sep 17 j 07:22	26° <del>2</del> 18'00	-2°-56'-36
conjunction	-3604 Dec 28 j 09:07	10° <del>2</del> 39'16	0°-15'-21	min. Earth dist.	-3598 Sep 17 j 00:47	26° <del>2</del> 19'22	7.91948 AU
minimum elong	-3604 Dec 28 j 09:06	10° <del>2</del> 39'16	0°15'29	direct	-3598 Nov 22 j 03:11	22° <del>2</del> 50'22	
behind sun begin	-3604 Dec 28 j 07:02	10° <del>2</del> 38'38			-3597 Feb 24 j 17:14	0° <del>2</del>	
behind sun end	-3604 Dec 28 j 11:11	10° <del>2</del> 39'54		evening set	-3597 Mar 05 j 16:13	1° <del>2</del> 08'58	
max. Earth dist.	-3604 Dec 27 j 23:14	10° <del>2</del> 36'12	10.53168 AU				
morning rise	-3603 Jan 14 j 12:58	12° <del>2</del> 46'42		conjunction	-3597 Mar 23 j 13:39	3° <del>2</del> 30'35	-2°-22'-24
retrograde	-3603 Apr 30 j 10:26	20° <del>2</del> 36'19		minimum elong	-3597 Mar 23 j 13:39	3° <del>2</del> 30'35	2°22'30
opposition	-3603 Jul 09 j 13:44	17° <del>2</del> 10'22	0°-38'-51	max. Earth dist.	-3597 Mar 23 j 23:05	3° <del>2</del> 33'43	9.89841 AU
min. Earth dist.	-3603 Jul 09 j 20:30	17° <del>2</del> 09'03	8.45999 AU	morning rise	-3597 Apr 10 j 14:24	5° <del>2</del> 53'13	
direct	-3603 Sep 15 j 08:56	13° <del>2</del> 49'06		retrograde	-3597 Jul 26 j 23:59	14° <del>2</del> 19'06	
evening set	-3603 Dec 24 j 08:24	21° <del>2</del> 20'22		opposition	-3597 Oct 01 j 23:26	10° <del>2</del> 57'51	-2°-57'-24
				min. Earth dist.	-3597 Oct 01 j 14:59	10° <del>2</del> 59'37	7.89074 AU
conjunction	-3602 Jan 10 j 11:15	23° <del>2</del> 29'20	0°-46'-37	direct	-3597 Dec 06 j 20:22	7° <del>2</del> 29'08	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodiens AG 7-Dez-2017 14:38, page 26

Attention, astronomical year style is used: The year -3596 in astronomical counting style is the year 3597 BCE in historical counting style.

evening set	-3596 Mar 20 j 05:48	15° <del>✕</del> 52'13		evening set	-3590 Jun 16 j 17:49	9° <del>Π</del> 57'35	
conjunction	-3596 Apr 07 j 06:19	18° <del>✕</del> 14'48	-2°-18'-23	conjunction	-3590 Jul 04 j 13:05	12° <del>Π</del> 09'07	0°18'41
minimum elong	-3596 Apr 07 j 06:21	18° <del>✕</del> 14'48	2°18'26	minimum elong	-3590 Jul 04 j 13:04	12° <del>Π</del> 09'07	0°18'49
max. Earth dist.	-3596 Apr 07 j 18:32	18° <del>✕</del> 18'51	9.88819 AU	max. Earth dist.	-3590 Jul 04 j 23:23	12° <del>Π</del> 12'18	10.46809 AU
morning rise	-3596 Apr 25 j 08:57	20° <del>✕</del> 37'59		morning rise	-3590 Jul 22 j 03:29	14° <del>Π</del> 19'08	
retrograde	-3596 Aug 09 j 23:37	29° <del>✕</del> 10'24		retrograde	-3590 Oct 30 j 04:43	21° <del>Π</del> 45'02	
opposition	-3596 Oct 15 j 14:38	25° <del>✕</del> 39'37	-2°-46'-34	opposition	-3589 Jan 05 j 12:07	18° <del>Π</del> 23'02	0°42'00
min. Earth dist.	-3596 Oct 15 j 04:32	25° <del>✕</del> 41'44	7.89914 AU	min. Earth dist.	-3589 Jan 05 j 05:16	18° <del>Π</del> 24'24	8.53988 AU
direct	-3596 Dec 20 j 18:21	22° <del>✕</del> 10'06		direct	-3589 Mar 16 j 07:20	14° <del>Π</del> 55'34	
	-3595 Mar 31 j 09:25	0° <del>Υ</del>		evening set	-3589 Jun 30 j 03:45	22° <del>Π</del> 38'17	
evening set	-3595 Apr 04 j 20:30	0° <del>Υ</del> 34'25					
conjunction	-3595 Apr 22 j 23:22	2° <del>Υ</del> 57'05	-2°-5'-23	conjunction	-3589 Jul 17 j 18:02	24° <del>Π</del> 46'24	0°49'24
minimum elong	-3595 Apr 22 j 23:26	2° <del>Υ</del> 57'07	2°05'25	minimum elong	-3589 Jul 17 j 18:00	24° <del>Π</del> 46'23	0°49'33
max. Earth dist.	-3595 Apr 23 j 13:45	3° <del>Υ</del> 01'50	9.91559 AU	max. Earth dist.	-3589 Jul 18 j 00:48	24° <del>Π</del> 48'27	10.61280 AU
morning rise	-3595 May 11 j 02:57	5° <del>Υ</del> 19'55		morning rise	-3589 Aug 04 j 03:15	26° <del>Π</del> 52'56	
retrograde	-3595 Aug 24 j 15:58	13° <del>Υ</del> 45'07			-3589 Aug 31 j 19:16	0° <del>☿</del>	
opposition	-3595 Oct 30 j 02:50	10° <del>Υ</del> 15'13	-2°-25'00	retrograde	-3589 Nov 11 j 12:25	4° <del>☿</del> 08'30	
min. Earth dist.	-3595 Oct 29 j 15:22	10° <del>Υ</del> 17'36	7.94417 AU	opposition	-3588 Jan 18 j 05:36	0° <del>☿</del> 48'07	1°17'57
direct	-3594 Jan 04 j 17:15	6° <del>Υ</del> 45'14		min. Earth dist.	-3588 Jan 18 j 00:25	0° <del>☿</del> 49'08	8.68297 AU
evening set	-3594 Apr 20 j 08:10	15° <del>Υ</del> 07'28			-3588 Jan 28 j 15:43	30° <del>♊</del>	
				direct	-3588 Mar 28 j 15:02	27° <del>Π</del> 21'54	
conjunction	-3594 May 08 j 12:20	17° <del>Υ</del> 29'20	-1°-44'-32		-3588 May 25 j 21:14	0° <del>☿</del>	
minimum elong	-3594 May 08 j 12:24	17° <del>Υ</del> 29'22	1°44'31	evening set	-3588 Jul 12 j 01:57	4° <del>☿</del> 55'24	
max. Earth dist.	-3594 May 09 j 04:06	17° <del>Υ</del> 34'30	9.97854 AU				
morning rise	-3594 May 26 j 15:44	19° <del>Υ</del> 50'54		conjunction	-3588 Jul 29 j 10:57	7° <del>☿</del> 00'14	1°17'01
retrograde	-3594 Sep 07 j 23:43	28° <del>Υ</del> 05'58		minimum elong	-3588 Jul 29 j 10:54	7° <del>☿</del> 00'13	1°17'10
opposition	-3594 Nov 13 j 09:49	24° <del>Υ</del> 37'17	-1°-54'-38	max. Earth dist.	-3588 Jul 29 j 15:08	7° <del>☿</del> 01'29	10.75200 AU
min. Earth dist.	-3594 Nov 12 j 21:25	24° <del>Υ</del> 39'51	8.02247 AU	morning rise	-3588 Aug 15 j 14:44	9° <del>☿</del> 03'29	
direct	-3593 Jan 19 j 13:23	21° <del>Υ</del> 07'10		retrograde	-3588 Nov 22 j 12:53	16° <del>☿</del> 10'19	
evening set	-3593 May 05 j 13:44	29° <del>Υ</del> 24'29		opposition	-3587 Jan 29 j 16:37	12° <del>☿</del> 51'24	1°49'18
	-3593 May 10 j 05:17	0° <del>♄</del>		min. Earth dist.	-3587 Jan 29 j 13:22	12° <del>☿</del> 52'01	8.81762 AU
conjunction	-3593 May 23 j 17:52	1° <del>♄</del> 44'42	-1°-17'-34	direct	-3587 Apr 10 j 13:47	9° <del>☿</del> 26'32	
minimum elong	-3593 May 23 j 17:56	1° <del>♄</del> 44'43	1°17'31	evening set	-3587 Jul 24 j 13:30	16° <del>☿</del> 51'30	
max. Earth dist.	-3593 May 24 j 10:04	1° <del>♄</del> 49'56	10.07228 AU				
morning rise	-3593 Jun 10 j 19:44	4° <del>♄</del> 04'09		conjunction	-3587 Aug 10 j 17:14	18° <del>☿</del> 53'17	1°40'35
retrograde	-3593 Sep 21 j 22:28	12° <del>♄</del> 07'11		minimum elong	-3587 Aug 10 j 17:11	18° <del>☿</del> 53'16	1°40'43
opposition	-3593 Nov 27 j 09:58	8° <del>♄</del> 40'00	-1°-18'-2	max. Earth dist.	-3587 Aug 10 j 19:03	18° <del>☿</del> 53'49	10.87972 AU
min. Earth dist.	-3593 Nov 26 j 21:44	8° <del>♄</del> 42'31	8.12843 AU	morning rise	-3587 Aug 27 j 15:46	20° <del>☿</del> 53'34	
direct	-3592 Feb 03 j 04:18	5° <del>♄</del> 10'07		retrograde	-3587 Dec 04 j 08:24	27° <del>☿</del> 53'22	
evening set	-3592 May 19 j 10:21	13° <del>♄</del> 20'18		opposition	-3586 Feb 10 j 22:02	24° <del>☿</del> 35'43	2°15'08
	-3592 Jun 01 j 13:34	15° <del>♄</del>		min. Earth dist.	-3586 Feb 10 j 21:37	24° <del>☿</del> 35'48	8.93828 AU
conjunction	-3592 Jun 06 j 12:54	15° <del>♄</del> 38'06	0°-46'-38	direct	-3586 Apr 23 j 04:16	21° <del>☿</del> 12'13	
minimum elong	-3592 Jun 06 j 12:56	15° <del>♄</del> 38'07	0°46'34	evening set	-3586 Aug 05 j 15:32	28° <del>☿</del> 29'33	
max. Earth dist.	-3592 Jun 07 j 04:21	15° <del>♄</del> 43'02	10.19019 AU		-3586 Aug 18 j 12:59	0° <del>♁</del>	
morning rise	-3592 Jun 24 j 11:55	17° <del>♄</del> 54'46		conjunction	-3586 Aug 22 j 14:13	0° <del>♁</del> 28'41	1°59'27
retrograde	-3592 Oct 04 j 11:55	25° <del>♄</del> 45'01		minimum elong	-3586 Aug 22 j 14:10	0° <del>♁</del> 28'40	1°59'34
opposition	-3592 Dec 10 j 02:42	22° <del>♄</del> 19'31	0°-38'-1	max. Earth dist.	-3586 Aug 22 j 12:52	0° <del>♁</del> 28'17	10.99092 AU
min. Earth dist.	-3592 Dec 09 j 15:42	22° <del>♄</del> 21'45	8.25510 AU	morning rise	-3586 Sep 08 j 08:09	2° <del>♁</del> 26'27	
direct	-3591 Feb 16 j 12:19	18° <del>♄</del> 50'11		retrograde	-3586 Dec 15 j 22:25	9° <del>♁</del> 20'58	
evening set	-3591 Jun 02 j 19:56	26° <del>♄</del> 51'43		opposition	-3585 Feb 22 j 23:11	6° <del>♁</del> 04'19	2°34'54
				min. Earth dist.	-3585 Feb 23 j 01:58	6° <del>♁</del> 03'47	9.04028 AU
conjunction	-3591 Jun 20 j 19:25	29° <del>♄</del> 06'34	0°-13'-55	direct	-3585 May 05 j 11:14	2° <del>♁</del> 42'07	
minimum elong	-3591 Jun 20 j 19:26	29° <del>♄</del> 06'34	0°13'49	evening set	-3585 Aug 17 j 09:26	9° <del>♁</del> 52'53	
behind sun begin	-3591 Jun 20 j 15:45	29° <del>♄</del> 05'25					
behind sun end	-3591 Jun 20 j 23:06	29° <del>♄</del> 07'43		conjunction	-3585 Sep 03 j 03:31	11° <del>♁</del> 49'47	2°13'13
max. Earth dist.	-3591 Jun 21 j 08:50	29° <del>♄</del> 10'46	10.32472 AU	minimum elong	-3585 Sep 03 j 03:29	11° <del>♁</del> 49'46	2°13'19
	-3591 Jun 27 j 21:24	0° <del>♁</del>		max. Earth dist.	-3585 Sep 02 j 22:28	11° <del>♁</del> 48'18	11.08154 AU
morning rise	-3591 Jul 08 j 14:30	1° <del>♁</del> 20'01		morning rise	-3585 Sep 19 j 17:40	13° <del>♁</del> 45'33	
retrograde	-3591 Oct 17 j 13:39	8° <del>♁</del> 57'39			-3585 Sep 30 j 18:25	15° <del>♁</del>	
asc. node	-3591 Nov 27 j 20:25	7° <del>♁</del> 29'37		retrograde	-3585 Dec 27 j 08:57	20° <del>♁</del> 36'34	
opposition	-3591 Dec 23 j 11:26	5° <del>♁</del> 33'55	0°02'45	opposition	-3584 Mar 05 j 21:04	17° <del>♁</del> 20'35	2°48'19
min. Earth dist.	-3591 Dec 23 j 02:24	5° <del>♁</del> 35'44	8.39481 AU	min. Earth dist.	-3584 Mar 06 j 02:01	17° <del>♁</del> 19'40	9.11991 AU
direct	-3590 Mar 02 j 14:09	2° <del>♁</del> 05'24			-3584 Apr 10 j 01:24	15° <del>♁</del>	
				direct	-3584 May 16 j 14:09	13° <del>♁</del> 59'35	
					-3584 Jun 21 j 12:45	15° <del>♁</del>	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 27

Attention, astronomical year style is used: The year -3584 in astronomical counting style is the year 3585 BCE in historical counting style.

evening set	-3584 Aug 27 j 20:33	21° $\Omega$ 04'54		conjunction	-3578 Nov 18 j 04:50	29° $\Omega$ 36'45	1°23'15
				minimum elong	-3578 Nov 18 j 04:53	29° $\Omega$ 36'46	1°23'11
conjunction	-3584 Sep 13 j 11:01	23° $\Omega$ 00'08	2°21'40	max. Earth dist.	-3578 Nov 17 j 13:08	29° $\Omega$ 32'05	10.97973 AU
minimum elong	-3584 Sep 13 j 11:00	23° $\Omega$ 00'08	2°21'45		-3578 Nov 21 j 10:57	0° $\mathcal{M}$	
max. Earth dist.	-3584 Sep 13 j 03:44	22° $\Omega$ 58'00	11.14851 AU	morning rise	-3578 Dec 04 j 19:10	1° $\mathcal{M}$ 34'32	
morning rise	-3584 Sep 29 j 22:11	24° $\Omega$ 54'26		retrograde	-3577 Mar 17 j 12:41	8° $\mathcal{M}$ 47'26	
	-3584 Nov 21 j 10:29	0° $\mathcal{M}$		opposition	-3577 May 27 j 12:19	5° $\mathcal{M}$ 27'15	1°26'38
retrograde	-3583 Jan 06 j 19:55	1° $\mathcal{M}$ 43'38		min. Earth dist.	-3577 May 28 j 01:39	5° $\mathcal{M}$ 24'46	8.92407 AU
	-3583 Feb 23 j 22:41	30° $\mathcal{R}$ $\Omega$		direct	-3577 Aug 05 j 09:41	2° $\mathcal{M}$ 08'48	
opposition	-3583 Mar 17 j 16:46	28° $\Omega$ 27'59	2°55'13	evening set	-3577 Nov 13 j 04:50	9° $\mathcal{M}$ 13'46	
min. Earth dist.	-3583 Mar 17 j 23:13	28° $\Omega$ 26'48	9.17446 AU				
direct	-3583 May 28 j 11:17	25° $\Omega$ 08'04		conjunction	-3577 Nov 29 j 19:49	11° $\mathcal{M}$ 13'04	0°57'45
	-3583 Aug 19 j 10:09	0° $\mathcal{M}$		minimum elong	-3577 Nov 29 j 19:51	11° $\mathcal{M}$ 13'05	0°57'40
evening set	-3583 Sep 08 j 02:25	2° $\mathcal{M}$ 09'05		max. Earth dist.	-3577 Nov 29 j 04:11	11° $\mathcal{M}$ 08'22	10.86396 AU
				morning rise	-3577 Dec 16 j 13:44	13° $\mathcal{M}$ 13'17	
conjunction	-3583 Sep 24 j 14:18	4° $\mathcal{M}$ 03'13	2°24'44		-3576 Jan 01 j 01:45	15° $\mathcal{M}$	
minimum elong	-3583 Sep 24 j 14:18	4° $\mathcal{M}$ 03'13	2°24'48	retrograde	-3576 Mar 29 j 05:11	20° $\mathcal{M}$ 35'37	
max. Earth dist.	-3583 Sep 24 j 05:36	4° $\mathcal{M}$ 00'42	11.18953 AU	opposition	-3576 Jun 08 j 01:56	17° $\mathcal{M}$ 13'46	0°53'27
morning rise	-3583 Oct 10 j 23:24	5° $\mathcal{M}$ 56'39		min. Earth dist.	-3576 Jun 08 j 14:48	17° $\mathcal{M}$ 11'21	8.79906 AU
retrograde	-3582 Jan 18 j 06:11	12° $\mathcal{M}$ 45'41			-3576 Jul 10 j 14:07	15° $\mathcal{R}$ $\mathcal{M}$	
opposition	-3582 Mar 29 j 11:34	9° $\mathcal{M}$ 30'03	2°55'37	direct	-3576 Aug 16 j 09:57	13° $\mathcal{M}$ 54'38	
min. Earth dist.	-3582 Mar 29 j 20:05	9° $\mathcal{M}$ 28'29	9.20197 AU		-3576 Sep 21 j 06:57	15° $\mathcal{M}$	
direct	-3582 Jun 09 j 03:53	6° $\mathcal{M}$ 11'00		evening set	-3576 Nov 24 j 01:06	21° $\mathcal{M}$ 05'35	
evening set	-3582 Sep 19 j 05:02	13° $\mathcal{M}$ 09'02					
				conjunction	-3576 Dec 10 j 19:16	23° $\mathcal{M}$ 07'26	0°29'12
conjunction	-3582 Oct 05 j 15:04	15° $\mathcal{M}$ 02'37	2°22'27	minimum elong	-3576 Dec 10 j 19:17	23° $\mathcal{M}$ 07'26	0°29'06
minimum elong	-3582 Oct 05 j 15:05	15° $\mathcal{M}$ 02'38	2°22'29	max. Earth dist.	-3576 Dec 10 j 05:31	23° $\mathcal{M}$ 03'14	10.73204 AU
max. Earth dist.	-3582 Oct 05 j 03:51	14° $\mathcal{M}$ 59'22	11.20304 AU	morning rise	-3576 Dec 27 j 17:01	25° $\mathcal{M}$ 10'27	
morning rise	-3582 Oct 21 j 23:15	16° $\mathcal{M}$ 55'45			-3575 Feb 11 j 05:07	0° $\mathcal{J}$	
retrograde	-3581 Jan 29 j 18:19	23° $\mathcal{M}$ 46'15		retrograde	-3575 Apr 11 j 06:15	2° $\mathcal{J}$ 43'24	
opposition	-3581 Apr 10 j 06:34	20° $\mathcal{M}$ 30'19	2°49'38		-3575 Jun 12 j 01:06	30° $\mathcal{R}$ $\mathcal{M}$	
min. Earth dist.	-3581 Apr 10 j 17:31	20° $\mathcal{M}$ 28'19	9.20134 AU	opposition	-3575 Jun 20 j 21:57	29° $\mathcal{M}$ 19'44	0°16'56
direct	-3581 Jun 20 j 18:49	17° $\mathcal{M}$ 11'53		min. Earth dist.	-3575 Jun 21 j 08:54	29° $\mathcal{M}$ 17'39	8.66071 AU
evening set	-3581 Sep 30 j 05:55	24° $\mathcal{M}$ 08'17		direct	-3575 Aug 28 j 15:22	25° $\mathcal{M}$ 59'42	
					-3575 Nov 07 j 04:07	0° $\mathcal{J}$	
conjunction	-3581 Oct 16 j 15:05	26° $\mathcal{M}$ 01'55	2°14'54	desc. node	-3575 Dec 05 j 19:38	3° $\mathcal{J}$ 14'45	
minimum elong	-3581 Oct 16 j 15:07	26° $\mathcal{M}$ 01'55	2°14'55	evening set	-3575 Dec 06 j 06:52	3° $\mathcal{J}$ 18'09	
max. Earth dist.	-3581 Oct 16 j 01:28	25° $\mathcal{M}$ 57'57	11.18840 AU				
morning rise	-3581 Nov 01 j 23:30	27° $\mathcal{M}$ 55'22		conjunction	-3575 Dec 23 j 04:34	5° $\mathcal{J}$ 22'51	0°-1'-28
	-3581 Nov 20 j 21:19	0° $\mathcal{A}$		minimum elong	-3575 Dec 23 j 04:32	5° $\mathcal{J}$ 22'51	0°01'36
retrograde	-3580 Feb 10 j 07:16	4° $\mathcal{A}$ 48'59		behind sun begin	-3575 Dec 22 j 21:28	5° $\mathcal{J}$ 20'41	
opposition	-3580 Apr 21 j 03:01	1° $\mathcal{A}$ 32'24	2°37'25	behind sun end	-3575 Dec 23 j 11:37	5° $\mathcal{J}$ 25'01	
min. Earth dist.	-3580 Apr 21 j 15:31	1° $\mathcal{A}$ 30'07	9.17214 AU	max. Earth dist.	-3575 Dec 22 j 17:12	5° $\mathcal{J}$ 19'21	10.58936 AU
	-3580 May 13 j 02:00	30° $\mathcal{R}$ $\mathcal{M}$		morning rise	-3574 Jan 09 j 06:20	7° $\mathcal{J}$ 28'55	
direct	-3580 Jul 01 j 08:35	28° $\mathcal{M}$ 14'20		retrograde	-3574 Apr 24 j 17:48	15° $\mathcal{J}$ 13'27	
	-3580 Aug 17 j 21:37	0° $\mathcal{A}$		opposition	-3574 Jul 04 j 01:26	11° $\mathcal{J}$ 47'56	0°-21'-35
evening set	-3580 Oct 10 j 06:39	5° $\mathcal{A}$ 10'33		min. Earth dist.	-3574 Jul 04 j 09:46	11° $\mathcal{J}$ 46'20	8.51494 AU
				direct	-3574 Sep 10 j 04:32	8° $\mathcal{J}$ 26'48	
conjunction	-3580 Oct 26 j 16:08	7° $\mathcal{A}$ 04'48	2°02'19	evening set	-3574 Dec 18 j 23:42	15° $\mathcal{J}$ 54'05	
minimum elong	-3580 Oct 26 j 16:10	7° $\mathcal{A}$ 04'48	2°02'18				
max. Earth dist.	-3580 Oct 26 j 01:43	7° $\mathcal{A}$ 00'35	11.14535 AU	conjunction	-3573 Jan 05 j 00:58	18° $\mathcal{J}$ 01'49	0°-32'-51
morning rise	-3580 Nov 12 j 01:39	8° $\mathcal{A}$ 59'08		minimum elong	-3573 Jan 05 j 00:56	18° $\mathcal{J}$ 01'49	0°32'59
retrograde	-3579 Feb 21 j 03:30	15° $\mathcal{A}$ 57'36		max. Earth dist.	-3573 Jan 04 j 15:58	17° $\mathcal{J}$ 59'00	10.44227 AU
opposition	-3579 May 03 j 01:55	12° $\mathcal{A}$ 40'03	2°19'14	morning rise	-3573 Jan 22 j 06:58	20° $\mathcal{J}$ 11'07	
min. Earth dist.	-3579 May 03 j 14:43	12° $\mathcal{A}$ 37'43	9.11460 AU	retrograde	-3573 May 08 j 16:08	28° $\mathcal{J}$ 07'42	
direct	-3579 Jul 13 j 00:07	9° $\mathcal{A}$ 22'08		opposition	-3573 Jul 17 j 12:44	24° $\mathcal{J}$ 40'25	-1°00'-23
evening set	-3579 Oct 21 j 09:30	16° $\mathcal{A}$ 19'42		min. Earth dist.	-3573 Jul 17 j 18:22	24° $\mathcal{J}$ 39'19	8.36849 AU
				direct	-3573 Sep 23 j 00:10	21° $\mathcal{J}$ 18'02	
conjunction	-3579 Nov 06 j 20:11	18° $\mathcal{A}$ 15'10	1°44'58	evening set	-3572 Jan 01 j 05:06	28° $\mathcal{J}$ 55'15	
minimum elong	-3579 Nov 06 j 20:14	18° $\mathcal{A}$ 15'11	1°44'55		-3572 Jan 09 j 18:36	0° $\mathcal{B}$	
max. Earth dist.	-3579 Nov 06 j 05:20	18° $\mathcal{A}$ 10'47	11.07483 AU				
morning rise	-3579 Nov 23 j 07:38	20° $\mathcal{A}$ 10'58		conjunction	-3572 Jan 18 j 10:04	1° $\mathcal{B}$ 06'05	-1°-3'-29
retrograde	-3578 Mar 05 j 05:09	27° $\mathcal{A}$ 15'51		minimum elong	-3572 Jan 18 j 10:01	1° $\mathcal{B}$ 06'05	1°03'39
opposition	-3578 May 15 j 04:32	23° $\mathcal{A}$ 57'08	1°55'28	max. Earth dist.	-3572 Jan 18 j 03:27	1° $\mathcal{B}$ 03'59	10.29786 AU
min. Earth dist.	-3578 May 15 j 17:38	23° $\mathcal{A}$ 54'43	9.03071 AU	morning rise	-3572 Feb 04 j 20:18	3° $\mathcal{B}$ 18'38	
direct	-3578 Jul 24 j 14:28	20° $\mathcal{A}$ 39'06		retrograde	-3572 May 21 j 23:24	11° $\mathcal{B}$ 27'05	
evening set	-3578 Nov 01 j 16:21	27° $\mathcal{A}$ 39'36		opposition	-3572 Jul 30 j 07:39	7° $\mathcal{B}$ 58'12	-1°-37'-22

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 28

Attention, astronomical year style is used: The year -3572 in astronomical counting style is the year 3573 BCE in historical counting style.

min. Earth dist.	-3572 Jul 30 j 10:58	7° $\overline{5}$ 7'32	8.22875 AU	conjunction	-3565 May 02 j 04:19	11° $\overline{Y}$ 26'31	-1°-54'-27
direct	-3572 Oct 05 j 05:08	4° $\overline{3}$ 34'26		minimum elong	-3565 May 02 j 04:23	11° $\overline{Y}$ 26'32	1°54'27
evening set	-3571 Jan 13 j 23:35	12° $\overline{2}$ 22'17		max. Earth dist.	-3565 May 02 j 21:28	11° $\overline{Y}$ 32'10	9.94074 AU
				morning rise	-3565 May 20 j 07:56	13° $\overline{Y}$ 48'51	
conjunction	-3571 Jan 31 j 08:23	14° $\overline{3}$ 36'11	-1°-31'-34	retrograde	-3565 Sep 02 j 06:24	22° $\overline{Y}$ 09'06	
minimum elong	-3571 Jan 31 j 08:20	14° $\overline{3}$ 36'10	1°31'44	opposition	-3565 Nov 07 j 15:41	18° $\overline{Y}$ 39'47	-2°-8'-43
max. Earth dist.	-3571 Jan 31 j 05:11	14° $\overline{3}$ 35'09	10.16369 AU	min. Earth dist.	-3565 Nov 07 j 02:58	18° $\overline{Y}$ 42'26	7.98035 AU
morning rise	-3571 Feb 17 j 22:36	16° $\overline{3}$ 51'49		direct	-3564 Jan 13 j 11:22	15° $\overline{Y}$ 09'43	
retrograde	-3571 Jun 05 j 14:14	25° $\overline{3}$ 11'10		evening set	-3564 Apr 28 j 09:46	23° $\overline{Y}$ 29'52	
opposition	-3571 Aug 13 j 09:54	21° $\overline{3}$ 40'56	-2°-10'-4				
min. Earth dist.	-3571 Aug 13 j 10:30	21° $\overline{3}$ 40'48	8.10330 AU	conjunction	-3564 May 16 j 14:00	25° $\overline{Y}$ 50'59	-1°-29'-50
direct	-3571 Oct 18 j 20:57	18° $\overline{3}$ 15'45		minimum elong	-3564 May 16 j 14:03	25° $\overline{Y}$ 51'00	1°29'48
evening set	-3570 Jan 28 j 06:57	26° $\overline{3}$ 14'13		max. Earth dist.	-3564 May 17 j 07:06	25° $\overline{Y}$ 56'33	10.02594 AU
				morning rise	-3564 Jun 03 j 16:44	28° $\overline{Y}$ 11'31	
conjunction	-3570 Feb 14 j 19:36	28° $\overline{3}$ 30'59	-1°-55'-7		-3564 Jun 18 j 05:23	0° $\overline{8}$	
minimum elong	-3570 Feb 14 j 19:33	28° $\overline{3}$ 30'57	1°55'16	retrograde	-3564 Sep 15 j 09:57	6° $\overline{8}$ 20'19	
max. Earth dist.	-3570 Feb 14 j 20:39	28° $\overline{3}$ 31'19	10.04744 AU	opposition	-3564 Nov 20 j 19:29	2° $\overline{8}$ 52'38	-1°-34'-24
	-3570 Feb 26 j 04:18	0° $\overline{\approx}$		min. Earth dist.	-3564 Nov 20 j 07:01	2° $\overline{8}$ 55'12	8.07937 AU
morning rise	-3570 Mar 04 j 13:22	0° $\overline{\approx}$ 49'22			-3563 Jan 01 j 00:16	30° $\overline{R}$ $\overline{Y}$	
retrograde	-3570 Jun 20 j 11:30	9° $\overline{\approx}$ 17'44		direct	-3563 Jan 27 j 05:39	29° $\overline{Y}$ 22'51	
opposition	-3570 Aug 27 j 18:26	5° $\overline{\approx}$ 46'29	-2°-35'-59		-3563 Feb 22 j 11:10	0° $\overline{8}$	
min. Earth dist.	-3570 Aug 27 j 15:50	5° $\overline{\approx}$ 47'01	7.99964 AU	evening set	-3563 May 13 j 11:04	7° $\overline{8}$ 36'39	
direct	-3570 Nov 01 j 21:28	2° $\overline{\approx}$ 19'58					
evening set	-3569 Feb 12 j 02:21	10° $\overline{\approx}$ 28'14		conjunction	-3563 May 31 j 14:19	9° $\overline{8}$ 55'37	-1°00'-18
				minimum elong	-3563 May 31 j 14:22	9° $\overline{8}$ 55'38	1°00'14
conjunction	-3569 Mar 01 j 18:51	12° $\overline{\approx}$ 47'28	-2°-12'-13	max. Earth dist.	-3563 Jun 01 j 06:22	10° $\overline{8}$ 00'46	10.13863 AU
minimum elong	-3569 Mar 01 j 18:48	12° $\overline{\approx}$ 47'27	2°12'21	morning rise	-3563 Jun 18 j 14:51	12° $\overline{8}$ 13'37	
max. Earth dist.	-3569 Mar 02 j 00:29	12° $\overline{\approx}$ 49'20	9.95657 AU		-3563 Jul 11 j 15:24	15° $\overline{8}$	
	-3569 Mar 18 j 14:36	15° $\overline{\approx}$		retrograde	-3563 Sep 29 j 03:14	20° $\overline{8}$ 09'42	
morning rise	-3569 Mar 19 j 15:47	15° $\overline{\approx}$ 08'09		opposition	-3563 Dec 04 j 15:59	16° $\overline{8}$ 43'48	0°-55'-27
retrograde	-3569 Jul 05 j 14:01	23° $\overline{\approx}$ 42'35		min. Earth dist.	-3563 Dec 04 j 03:53	16° $\overline{8}$ 46'16	8.20242 AU
opposition	-3569 Sep 11 j 07:34	20° $\overline{\approx}$ 10'44	-2°-52'-44		-3563 Dec 26 j 21:50	15° $\overline{R}$ $\overline{8}$	
min. Earth dist.	-3569 Sep 11 j 01:36	20° $\overline{\approx}$ 11'59	7.92456 AU	direct	-3562 Feb 10 j 18:25	13° $\overline{8}$ 14'37	
direct	-3569 Nov 16 j 05:25	16° $\overline{\approx}$ 42'59			-3562 Mar 28 j 04:22	15° $\overline{8}$	
evening set	-3568 Feb 27 j 07:38	24° $\overline{\approx}$ 59'23		evening set	-3562 May 28 j 02:01	21° $\overline{8}$ 20'12	
conjunction	-3568 Mar 16 j 03:48	27° $\overline{\approx}$ 20'34	-2°-21'-17	conjunction	-3562 Jun 15 j 02:55	23° $\overline{8}$ 36'21	0°-28'-2
minimum elong	-3568 Mar 16 j 03:47	27° $\overline{\approx}$ 20'34	2°21'23	minimum elong	-3562 Jun 15 j 02:56	23° $\overline{8}$ 36'22	0°27'57
max. Earth dist.	-3568 Mar 16 j 13:44	27° $\overline{\approx}$ 23'52	9.89734 AU	max. Earth dist.	-3562 Jun 15 j 17:29	23° $\overline{8}$ 40'58	10.27128 AU
morning rise	-3568 Apr 03 j 03:29	29° $\overline{\approx}$ 42'55		morning rise	-3562 Jul 03 j 00:01	25° $\overline{8}$ 51'16	
	-3568 Apr 05 j 08:11	0° $\overline{\text{H}}$			-3562 Aug 08 j 08:48	0° $\overline{\text{II}}$	
retrograde	-3568 Jul 19 j 18:09	8° $\overline{\text{H}}$ 19'44		retrograde	-3562 Oct 12 j 09:32	3° $\overline{\text{II}}$ 34'24	
opposition	-3568 Sep 24 j 23:26	4° $\overline{\text{H}}$ 47'46	-2°-58'-35	opposition	-3562 Dec 18 j 04:27	0° $\overline{\text{II}}$ 10'22	0°-14'-39
min. Earth dist.	-3568 Sep 24 j 14:24	4° $\overline{\text{H}}$ 49'40	7.88322 AU	min. Earth dist.	-3562 Dec 17 j 17:20	0° $\overline{\text{II}}$ 12'36	8.34148 AU
direct	-3568 Nov 29 j 20:09	1° $\overline{\text{H}}$ 18'59			-3562 Dec 20 j 08:03	30° $\overline{R}$ $\overline{8}$	
evening set	-3567 Mar 13 j 19:39	9° $\overline{\text{H}}$ 41'02		direct	-3561 Feb 25 j 00:19	26° $\overline{8}$ 42'00	
					-3561 Apr 30 j 07:10	0° $\overline{\text{II}}$	
conjunction	-3567 Mar 31 j 19:04	12° $\overline{\text{H}}$ 03'29	-2°-21'-17	asc. node	-3561 May 03 j 18:56	0° $\overline{\text{II}}$ 20'06	
minimum elong	-3567 Mar 31 j 19:06	12° $\overline{\text{H}}$ 03'29	2°21'22	evening set	-3561 Jun 11 j 05:33	4° $\overline{\text{II}}$ 38'18	
max. Earth dist.	-3567 Apr 01 j 08:29	12° $\overline{\text{H}}$ 07'56	9.87409 AU				
morning rise	-3567 Apr 18 j 20:52	14° $\overline{\text{H}}$ 26'42		conjunction	-3561 Jun 29 j 02:51	6° $\overline{\text{II}}$ 51'14	0°04'55
retrograde	-3567 Aug 03 j 20:28	23° $\overline{\text{H}}$ 01'46		minimum elong	-3561 Jun 29 j 02:49	6° $\overline{\text{II}}$ 51'14	0°05'02
opposition	-3567 Oct 09 j 15:37	19° $\overline{\text{H}}$ 30'13	-2°-52'-45	behind sun begin	-3561 Jun 28 j 19:47	6° $\overline{\text{II}}$ 49'03	
min. Earth dist.	-3567 Oct 09 j 04:26	19° $\overline{\text{H}}$ 32'34	7.87880 AU	behind sun end	-3561 Jun 29 j 09:52	6° $\overline{\text{II}}$ 53'24	
direct	-3567 Dec 14 j 15:50	16° $\overline{\text{H}}$ 00'41		max. Earth dist.	-3561 Jun 29 j 15:15	6° $\overline{\text{II}}$ 55'05	10.41537 AU
evening set	-3566 Mar 29 j 10:35	24° $\overline{\text{H}}$ 25'18		morning rise	-3561 Jul 16 j 19:22	9° $\overline{\text{II}}$ 02'41	
				retrograde	-3561 Oct 25 j 06:14	16° $\overline{\text{II}}$ 33'31	
conjunction	-3566 Apr 16 j 12:39	26° $\overline{\text{H}}$ 48'11	-2°-12'-6	opposition	-3561 Dec 31 j 08:48	13° $\overline{\text{II}}$ 11'17	0°25'29
minimum elong	-3566 Apr 16 j 12:42	26° $\overline{\text{H}}$ 48'12	2°12'09	min. Earth dist.	-3561 Dec 30 j 23:38	13° $\overline{\text{II}}$ 13'06	8.48795 AU
max. Earth dist.	-3566 Apr 17 j 04:33	26° $\overline{\text{H}}$ 53'27	9.88887 AU	direct	-3560 Mar 09 j 20:37	9° $\overline{\text{II}}$ 43'56	
morning rise	-3566 May 04 j 15:51	29° $\overline{\text{H}}$ 11'25		evening set	-3560 Jun 23 j 20:58	17° $\overline{\text{II}}$ 30'35	
	-3566 May 10 j 22:59	0° $\overline{\text{Y}}$					
retrograde	-3566 Aug 18 j 17:31	7° $\overline{\text{Y}}$ 40'46		conjunction	-3560 Jul 11 j 13:37	19° $\overline{\text{II}}$ 40'06	0°36'34
opposition	-3566 Oct 24 j 05:46	4° $\overline{\text{Y}}$ 10'07	-2°-35'-38	minimum elong	-3560 Jul 11 j 13:35	19° $\overline{\text{II}}$ 40'06	0°36'42
min. Earth dist.	-3566 Oct 23 j 17:21	4° $\overline{\text{Y}}$ 12'43	7.91193 AU	max. Earth dist.	-3560 Jul 11 j 23:09	19° $\overline{\text{II}}$ 43'02	10.56220 AU
direct	-3566 Dec 29 j 13:54	0° $\overline{\text{Y}}$ 40'09		morning rise	-3560 Jul 29 j 00:57	21° $\overline{\text{II}}$ 48'02	
evening set	-3565 Apr 14 j 00:30	9° $\overline{\text{Y}}$ 04'04		retrograde	-3560 Nov 05 j 18:46	29° $\overline{\text{II}}$ 07'48	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 29

Attention, astronomical year style is used: The year -3559 in astronomical counting style is the year 3560 BCE in historical counting style.

opposition	-3559 Jan 12 j 05:39	25°II47'17	1°03'02	retrograde	-3553 Jan 13 j 18:53	8°mp23'08	
min. Earth dist.	-3559 Jan 11 j 23:37	25°II48'27	8.63336 AU	opposition	-3553 Mar 24 j 21:51	5°mp07'12	2°56'17
direct	-3559 Mar 23 j 07:10	22°II21'05		min. Earth dist.	-3553 Mar 25 j 07:24	5°mp05'27	9.18066 AU
evening set	-3559 Jul 07 j 00:22	29°II58'21		direct	-3553 Jun 04 j 15:35	1°mp47'21	
	-3559 Jul 07 j 05:55	0°☾		evening set	-3553 Sep 14 j 22:55	8°mp46'56	
conjunction	-3559 Jul 24 j 11:43	2°☾04'31	1°05'38	conjunction	-3553 Oct 01 j 09:38	10°mp40'48	2°24'05
minimum elong	-3559 Jul 24 j 11:41	2°☾04'31	1°05'47	minimum elong	-3553 Oct 01 j 09:39	10°mp40'48	2°24'08
max. Earth dist.	-3559 Jul 24 j 17:17	2°☾06'13	10.70382 AU	max. Earth dist.	-3553 Sep 30 j 21:53	10°mp37'23	11.18576 AU
morning rise	-3559 Aug 10 j 17:44	4°☾09'06		morning rise	-3553 Oct 17 j 18:16	12°mp34'08	
retrograde	-3559 Nov 17 j 21:37	11°☾19'28		retrograde	-3552 Jan 25 j 06:46	19°mp24'12	
opposition	-3558 Jan 24 j 19:34	8°☾00'28	1°36'29	opposition	-3552 Apr 04 j 16:44	16°mp07'55	2°53'01
min. Earth dist.	-3558 Jan 24 j 16:49	8°☾01'00	8.77057 AU	min. Earth dist.	-3552 Apr 05 j 03:05	16°mp06'01	9.18845 AU
direct	-3558 Apr 05 j 09:50	4°☾35'30		direct	-3552 Jun 15 j 08:56	12°mp48'40	
evening set	-3558 Jul 19 j 16:51	12°☾04'06		evening set	-3552 Sep 25 j 00:16	19°mp46'03	
conjunction	-3558 Aug 05 j 22:44	14°☾07'06	1°31'02	conjunction	-3552 Oct 11 j 09:55	21°mp39'46	2°18'45
minimum elong	-3558 Aug 05 j 22:41	14°☾07'06	1°31'10	minimum elong	-3552 Oct 11 j 09:57	21°mp39'46	2°18'47
max. Earth dist.	-3558 Aug 05 j 23:54	14°☾07'27	10.83428 AU	max. Earth dist.	-3552 Oct 10 j 21:29	21°mp36'08	11.18009 AU
morning rise	-3558 Aug 22 j 23:35	16°☾08'38		morning rise	-3552 Oct 27 j 18:07	23°mp33'09	
retrograde	-3558 Nov 29 j 18:18	23°☾11'20			-3551 Jan 12 j 20:17	0°☾	
opposition	-3557 Feb 06 j 03:25	19°☾53'36	2°04'46	retrograde	-3551 Feb 04 j 19:58	0°☾25'40	
min. Earth dist.	-3557 Feb 06 j 03:15	19°☾53'38	8.89433 AU		-3551 Feb 28 j 02:11	30°Rmp	
direct	-3557 Apr 18 j 06:01	16°☾29'51		opposition	-3551 Apr 16 j 12:23	27°mp08'48	2°43'26
evening set	-3557 Jul 31 j 23:16	23°☾50'34		min. Earth dist.	-3551 Apr 16 j 23:49	27°mp06'42	9.16909 AU
				direct	-3551 Jun 26 j 21:44	23°mp49'59	
conjunction	-3557 Aug 17 j 23:59	25°☾50'47	1°51'58		-3551 Sep 29 j 04:03	0°☾	
minimum elong	-3557 Aug 17 j 23:56	25°☾50'46	1°52'05	evening set	-3551 Oct 06 j 00:57	0°☾46'35	
max. Earth dist.	-3557 Aug 17 j 21:57	25°☾50'10	10.94906 AU				
morning rise	-3557 Sep 03 j 19:57	27°☾49'36		conjunction	-3551 Oct 22 j 10:22	2°☾40'42	2°08'17
	-3557 Sep 23 j 07:10	0°☾		minimum elong	-3551 Oct 22 j 10:24	2°☾40'42	2°08'17
retrograde	-3557 Dec 11 j 10:56	4°☾46'23		max. Earth dist.	-3551 Oct 21 j 20:24	2°☾36'37	11.14767 AU
opposition	-3556 Feb 18 j 06:35	1°☾29'35	2°27'12	morning rise	-3551 Nov 07 j 19:20	4°☾34'45	
min. Earth dist.	-3556 Feb 18 j 08:22	1°☾29'15	9.00036 AU	retrograde	-3550 Feb 16 j 12:59	11°☾31'22	
	-3556 Mar 09 j 22:12	30°R☾		opposition	-3550 Apr 28 j 10:15	8°☾13'40	2°27'44
direct	-3556 Apr 29 j 16:49	28°☾07'02		min. Earth dist.	-3550 Apr 28 j 23:06	8°☾11'18	9.12317 AU
	-3556 Jun 18 j 05:13	0°☾		direct	-3550 Jul 08 j 11:48	4°☾55'04	
evening set	-3556 Aug 11 j 20:40	5°☾20'44		evening set	-3550 Oct 17 j 02:47	11°☾52'23	
conjunction	-3556 Aug 28 j 16:47	7°☾18'35	2°07'57	conjunction	-3550 Nov 02 j 12:48	13°☾47'25	1°52'54
minimum elong	-3556 Aug 28 j 16:45	7°☾18'34	2°08'04	minimum elong	-3550 Nov 02 j 12:51	13°☾47'26	1°52'51
max. Earth dist.	-3556 Aug 28 j 12:44	7°☾17'23	11.04428 AU	max. Earth dist.	-3550 Nov 01 j 21:30	13°☾42'55	11.08950 AU
morning rise	-3556 Sep 14 j 08:25	9°☾15'12		morning rise	-3550 Nov 18 j 23:31	15°☾42'42	
	-3556 Nov 15 j 01:37	15°☾		retrograde	-3549 Feb 28 j 10:42	22°☾45'02	
retrograde	-3556 Dec 21 j 23:46	16°☾07'48		opposition	-3549 May 10 j 11:23	19°☾26'16	2°06'15
	-3555 Jan 28 j 19:36	15°R☾		min. Earth dist.	-3549 May 11 j 00:46	19°☾23'48	9.05215 AU
opposition	-3555 Mar 01 j 06:02	12°☾51'36	2°43'22	direct	-3549 Jul 20 j 02:48	16°☾07'43	
min. Earth dist.	-3555 Mar 01 j 10:27	12°☾50'47	9.08511 AU	evening set	-3549 Oct 28 j 07:37	23°☾07'13	
direct	-3555 May 11 j 21:22	9°☾30'06					
	-3555 Aug 08 j 18:55	15°☾		conjunction	-3549 Nov 13 j 19:17	25°☾03'43	1°32'57
evening set	-3555 Aug 23 j 10:49	16°☾37'54		minimum elong	-3549 Nov 13 j 19:20	25°☾03'44	1°32'54
conjunction	-3555 Sep 09 j 02:55	18°☾33'52	2°18'43	max. Earth dist.	-3549 Nov 13 j 04:31	24°☾59'20	11.00739 AU
minimum elong	-3555 Sep 09 j 02:54	18°☾33'52	2°18'48	morning rise	-3549 Nov 30 j 08:27	27°☾00'44	
max. Earth dist.	-3555 Sep 08 j 20:00	18°☾31'51	11.11683 AU		-3549 Dec 27 j 15:14	0°M.	
morning rise	-3555 Sep 25 j 15:12	20°☾28'48		retrograde	-3548 Mar 11 j 15:42	4°M.10'24	
retrograde	-3554 Jan 02 j 10:42	27°☾18'51		opposition	-3548 May 21 j 16:53	0°M.50'20	1°39'27
opposition	-3554 Mar 13 j 02:38	24°☾02'59	2°53'05	min. Earth dist.	-3548 May 22 j 05:26	0°M.48'00	8.95839 AU
min. Earth dist.	-3554 Mar 13 j 10:03	24°☾01'37	9.14586 AU		-3548 Jun 02 j 03:14	30°R☾	
direct	-3554 May 23 j 20:08	20°☾42'22		direct	-3548 Jul 30 j 21:15	27°☾31'38	
evening set	-3554 Sep 03 j 19:05	27°☾45'26			-3548 Sep 24 j 12:28	0°M.	
				evening set	-3548 Nov 07 j 17:26	4°M.34'51	
conjunction	-3554 Sep 20 j 07:57	29°☾40'05	2°24'05	conjunction	-3548 Nov 24 j 07:29	6°M.33'18	1°08'57
minimum elong	-3554 Sep 20 j 07:57	29°☾40'05	2°24'10	minimum elong	-3548 Nov 24 j 07:32	6°M.33'19	1°08'53
max. Earth dist.	-3554 Sep 19 j 21:51	29°☾37'09	11.16447 AU	max. Earth dist.	-3548 Nov 23 j 17:48	6°M.29'12	10.90399 AU
	-3554 Sep 23 j 04:24	0°mp		morning rise	-3548 Dec 10 j 23:45	8°M.32'32	
morning rise	-3554 Oct 06 j 17:57	1°mp33'56			-3547 Feb 19 j 18:33	15°M.	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 30

Attention, astronomical year style is used: The year -3547 in astronomical counting style is the year 3548 BCE in historical counting style.

retrograde	-3547 Mar 24 j 06:02	15° $\mathbb{M}$ 50'57		max. Earth dist.	-3541 Feb 09 j 03:04	22° $\mathfrak{Z}$ 53'47	10.11160 AU
	-3547 Apr 26 j 04:57	15° $\mathbb{R}\mathbb{M}$		morning rise	-3541 Feb 26 j 18:20	25° $\mathfrak{Z}$ 10'35	
opposition	-3547 Jun 03 j 03:50	12° $\mathbb{M}$ 29'28	1°07'58		-3541 Apr 09 j 10:10	0° $\approx$	
min. Earth dist.	-3547 Jun 03 j 15:07	12° $\mathbb{M}$ 27'21	8.84509 AU	retrograde	-3541 Jun 14 j 15:28	3° $\approx$ 34'47	
direct	-3547 Aug 11 j 18:13	9° $\mathbb{M}$ 10'24		opposition	-3541 Aug 22 j 03:03	0° $\approx$ 04'34	-2°-25'-54
	-3547 Nov 08 j 03:16	15° $\mathbb{M}$		min. Earth dist.	-3541 Aug 22 j 00:38	0° $\approx$ 05'04	8.05929 AU
evening set	-3547 Nov 19 j 10:21	16° $\mathbb{M}$ 18'53			-3541 Aug 23 j 01:29	30° $\mathbb{R}\mathfrak{Z}$	
				direct	-3541 Oct 27 j 07:46	26° $\mathfrak{Z}$ 39'19	
conjunction	-3547 Dec 06 j 03:09	18° $\mathbb{M}$ 19'41	0°41'34		-3541 Dec 27 j 22:20	0° $\approx$	
minimum elong	-3547 Dec 06 j 03:10	18° $\mathbb{M}$ 19'41	0°41'28	evening set	-3540 Feb 06 j 05:49	4° $\approx$ 42'49	
max. Earth dist.	-3547 Dec 05 j 13:55	18° $\mathbb{M}$ 15'40	10.78299 AU				
morning rise	-3547 Dec 22 j 23:07	20° $\mathbb{M}$ 21'32		conjunction	-3540 Feb 23 j 20:28	7° $\approx$ 00'48	-2°-5'-50
retrograde	-3546 Apr 06 j 03:45	27° $\mathbb{M}$ 50'01		minimum elong	-3540 Feb 23 j 20:25	7° $\approx$ 00'47	2°05'57
opposition	-3546 Jun 15 j 21:13	24° $\mathbb{M}$ 27'00	0°32'40	max. Earth dist.	-3540 Feb 24 j 00:01	7° $\approx$ 01'58	10.01087 AU
min. Earth dist.	-3546 Jun 16 j 07:31	24° $\mathbb{M}$ 25'03	8.71659 AU	morning rise	-3540 Mar 12 j 15:56	9° $\approx$ 20'19	
direct	-3546 Aug 23 j 19:56	21° $\mathbb{M}$ 07'21			-3540 May 01 j 10:58	15° $\approx$	
evening set	-3546 Dec 01 j 12:05	28° $\mathbb{M}$ 22'39		retrograde	-3540 Jun 28 j 16:50	17° $\approx$ 51'47	
	-3546 Dec 14 j 19:11	0° $\mathfrak{Z}$			-3540 Aug 27 j 14:56	15° $\mathbb{R}\approx$	
conjunction	-3546 Dec 18 j 08:03	0° $\mathfrak{Z}$ 26'08	0°11'41	opposition	-3540 Sep 04 j 14:07	14° $\approx$ 20'50	-2°-46'-42
minimum elong	-3546 Dec 18 j 08:03	0° $\mathfrak{Z}$ 26'08	0°11'34	min. Earth dist.	-3540 Sep 04 j 09:36	14° $\approx$ 21'46	7.97160 AU
behind sun begin	-3546 Dec 18 j 02:57	0° $\mathfrak{Z}$ 24'35		direct	-3540 Nov 09 j 12:04	10° $\approx$ 54'15	
behind sun end	-3546 Dec 18 j 13:09	0° $\mathfrak{Z}$ 27'41			-3539 Jan 17 j 03:50	15° $\approx$	
max. Earth dist.	-3546 Dec 17 j 19:57	0° $\mathfrak{Z}$ 22'25	10.64927 AU	evening set	-3539 Feb 20 j 06:56	19° $\approx$ 06'44	
morning rise	-3545 Jan 04 j 08:09	2° $\mathfrak{Z}$ 30'54		conjunction	-3539 Mar 10 j 01:14	21° $\approx$ 26'54	-2°-18'-24
retrograde	-3545 Apr 19 j 10:42	10° $\mathfrak{Z}$ 10'32		minimum elong	-3539 Mar 10 j 01:13	21° $\approx$ 26'54	2°18'30
desc. node	-3545 May 08 j 18:22	9° $\mathfrak{Z}$ 52'09		max. Earth dist.	-3539 Mar 10 j 07:45	21° $\approx$ 29'04	9.93650 AU
opposition	-3545 Jun 28 j 21:54	6° $\mathfrak{Z}$ 45'56	0°-5'-13	morning rise	-3539 Mar 27 j 23:45	23° $\approx$ 48'24	
min. Earth dist.	-3545 Jun 29 j 06:50	6° $\mathfrak{Z}$ 44'13	8.57838 AU		-3539 May 22 j 05:33	0° $\mathfrak{H}$	
direct	-3545 Sep 05 j 06:09	3° $\mathfrak{Z}$ 25'27		retrograde	-3539 Jul 13 j 20:16	2° $\mathfrak{H}$ 23'58	
evening set	-3545 Dec 14 j 00:13	10° $\mathfrak{Z}$ 48'58			-3539 Sep 05 j 11:10	30° $\mathbb{R}\approx$	
conjunction	-3545 Dec 30 j 23:48	12° $\mathfrak{Z}$ 55'22	0°-19'-38	opposition	-3539 Sep 19 j 04:55	28° $\approx$ 52'42	-2°-57'-17
minimum elong	-3545 Dec 30 j 23:47	12° $\mathfrak{Z}$ 55'22	0°19'46	min. Earth dist.	-3539 Sep 18 j 22:22	28° $\approx$ 54'04	7.91327 AU
max. Earth dist.	-3545 Dec 30 j 14:18	12° $\mathfrak{Z}$ 52'24	10.50853 AU	direct	-3539 Nov 24 j 00:50	25° $\approx$ 24'56	
morning rise	-3544 Jan 17 j 04:06	15° $\mathfrak{Z}$ 03'16			-3538 Feb 05 j 02:42	0° $\mathfrak{H}$	
retrograde	-3544 May 02 j 04:26	22° $\mathfrak{Z}$ 54'43		evening set	-3538 Mar 07 j 16:00	3° $\mathfrak{H}$ 44'19	
opposition	-3544 Jul 11 j 06:08	19° $\mathfrak{Z}$ 28'31	0°-44'-9	conjunction	-3538 Mar 25 j 13:48	6° $\mathfrak{H}$ 06'05	-2°-22'-17
min. Earth dist.	-3544 Jul 11 j 12:45	19° $\mathfrak{Z}$ 27'14	8.43664 AU	minimum elong	-3538 Mar 25 j 13:49	6° $\mathfrak{H}$ 06'05	2°22'22
direct	-3544 Sep 16 j 23:30	16° $\mathfrak{Z}$ 07'03		max. Earth dist.	-3538 Mar 25 j 23:42	6° $\mathfrak{H}$ 09'22	9.89472 AU
evening set	-3544 Dec 26 j 00:26	23° $\mathfrak{Z}$ 39'56		morning rise	-3538 Apr 12 j 14:50	8° $\mathfrak{H}$ 28'51	
conjunction	-3543 Jan 12 j 03:50	25° $\mathfrak{Z}$ 49'23	0°-50'-48	retrograde	-3538 Jul 28 j 22:39	17° $\mathfrak{H}$ 04'39	
minimum elong	-3543 Jan 12 j 03:48	25° $\mathfrak{Z}$ 49'22	0°50'57	opposition	-3538 Oct 03 j 21:10	13° $\mathfrak{H}$ 33'27	-2°-56'-26
max. Earth dist.	-3543 Jan 11 j 21:55	25° $\mathfrak{Z}$ 47'30	10.36724 AU	min. Earth dist.	-3538 Oct 03 j 12:23	13° $\mathfrak{H}$ 35'17	7.88960 AU
morning rise	-3543 Jan 29 j 12:11	28° $\mathfrak{Z}$ 00'28		direct	-3538 Dec 08 j 19:42	10° $\mathfrak{H}$ 04'41	
	-3543 Feb 15 j 00:23	0° $\mathfrak{Z}$		evening set	-3537 Mar 23 j 05:55	18° $\mathfrak{H}$ 28'07	
retrograde	-3543 May 16 j 07:30	6° $\mathfrak{Z}$ 03'47		conjunction	-3537 Apr 10 j 06:49	20° $\mathfrak{H}$ 50'45	-2°-16'-58
opposition	-3543 Jul 24 j 21:52	2° $\mathfrak{Z}$ 36'04	-1°-22'-9	minimum elong	-3537 Apr 10 j 06:51	20° $\mathfrak{H}$ 50'46	2°17'01
min. Earth dist.	-3543 Jul 25 j 01:20	2° $\mathfrak{Z}$ 35'23	8.29818 AU	max. Earth dist.	-3537 Apr 10 j 19:52	20° $\mathfrak{H}$ 55'05	9.88961 AU
	-3543 Aug 31 j 11:03	30° $\mathbb{R}\mathfrak{Z}$		morning rise	-3537 Apr 28 j 09:37	23° $\mathfrak{H}$ 13'58	
direct	-3543 Sep 30 j 01:27	29° $\mathfrak{Z}$ 13'27			-3537 Jun 29 j 15:51	0° $\mathbb{Y}$	
	-3543 Oct 29 j 03:45	0° $\mathfrak{Z}$		retrograde	-3537 Aug 12 j 20:55	1° $\mathbb{Y}$ 45'48	
evening set	-3542 Jan 08 j 13:29	6° $\mathfrak{Z}$ 56'31			-3537 Sep 26 j 15:06	30° $\mathbb{R}\mathfrak{H}$	
conjunction	-3542 Jan 25 j 20:40	9° $\mathfrak{Z}$ 09'00	-1°-20'-11	opposition	-3537 Oct 18 j 12:11	28° $\mathfrak{H}$ 15'07	-2°-44'-1
minimum elong	-3542 Jan 25 j 20:37	9° $\mathfrak{Z}$ 08'59	1°20'20	min. Earth dist.	-3537 Oct 18 j 01:23	28° $\mathfrak{H}$ 17'23	7.90300 AU
max. Earth dist.	-3542 Jan 25 j 18:14	9° $\mathfrak{Z}$ 08'13	10.23253 AU	direct	-3537 Dec 23 j 17:38	24° $\mathfrak{H}$ 45'37	
morning rise	-3542 Feb 12 j 08:55	11° $\mathfrak{Z}$ 23'10			-3536 Mar 12 j 04:56	0° $\mathbb{Y}$	
retrograde	-3542 May 30 j 19:41	19° $\mathfrak{Z}$ 37'42		evening set	-3536 Apr 06 j 20:34	3° $\mathbb{Y}$ 09'49	
opposition	-3542 Aug 07 j 21:10	16° $\mathfrak{Z}$ 08'36	-1°-56'-54	conjunction	-3536 Apr 24 j 23:46	5° $\mathbb{Y}$ 32'28	-2°-2'-47
min. Earth dist.	-3542 Aug 07 j 21:19	16° $\mathfrak{Z}$ 08'34	8.17015 AU	minimum elong	-3536 Apr 24 j 23:50	5° $\mathbb{Y}$ 32'29	2°02'48
direct	-3542 Oct 13 j 12:29	12° $\mathfrak{Z}$ 44'43		max. Earth dist.	-3536 Apr 25 j 15:08	5° $\mathbb{Y}$ 37'32	9.92192 AU
evening set	-3541 Jan 22 j 15:24	20° $\mathfrak{Z}$ 38'11		morning rise	-3536 May 13 j 03:23	7° $\mathbb{Y}$ 55'11	
conjunction	-3541 Feb 09 j 02:20	22° $\mathfrak{Z}$ 53'33	-1°-45'-50	retrograde	-3536 Aug 26 j 12:33	16° $\mathbb{Y}$ 19'22	
minimum elong	-3541 Feb 09 j 02:16	22° $\mathfrak{Z}$ 53'32	1°45'59	opposition	-3536 Oct 31 j 23:56	12° $\mathbb{Y}$ 49'37	-2°-21'-5
				min. Earth dist.	-3536 Oct 31 j 11:42	12° $\mathbb{Y}$ 52'10	7.95267 AU

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 31

Attention, astronomical year style is used: The year -3535 in astronomical counting style is the year 3536 BCE in historical counting style.

direct	-3535 Jan 06 j 15:08	9°Υ19'41		opposition	-3529 Jan 19 j 20:56	3°♄04'46	1°22'41
evening set	-3535 Apr 22 j 07:49	17°Υ41'25		min. Earth dist.	-3529 Jan 19 j 15:31	3°♄05'49	8.70313 AU
					-3529 Mar 10 j 12:22	30°♄II	
conjunction	-3535 May 10 j 12:08	20°Υ03'09	-1°-40'-57	direct	-3529 Mar 31 j 08:04	29°♄II38'43	
minimum elong	-3535 May 10 j 12:12	20°Υ03'10	1°40'56		-3529 Apr 21 j 01:41	0°♄	
max. Earth dist.	-3535 May 11 j 04:51	20°Υ08'37	9.98929 AU	evening set	-3529 Jul 14 j 17:21	7°♄10'53	
morning rise	-3535 May 28 j 15:20	22°Υ24'28					
	-3535 Aug 14 j 18:28	0°♄		conjunction	-3529 Aug 01 j 01:48	9°♄15'16	1°20'36
retrograde	-3535 Sep 09 j 20:38	0°♄38'12		minimum elong	-3529 Aug 01 j 01:45	9°♄15'15	1°20'44
	-3535 Oct 06 j 01:36	30°♄RΥ		max. Earth dist.	-3529 Aug 01 j 06:21	9°♄16'38	10.77152 AU
opposition	-3535 Nov 15 j 06:15	27°Υ09'43	-1°-49'-40	morning rise	-3529 Aug 18 j 04:51	11°♄18'05	
min. Earth dist.	-3535 Nov 14 j 17:27	27°Υ12'22	8.03509 AU	retrograde	-3529 Nov 25 j 02:37	18°♄23'44	
direct	-3534 Jan 21 j 10:13	23°Υ39'42		opposition	-3528 Feb 01 j 06:57	15°♄04'59	1°53'15
	-3534 Apr 21 j 20:02	0°♄		min. Earth dist.	-3528 Feb 01 j 04:17	15°♄05'30	8.83642 AU
evening set	-3534 May 07 j 12:27	1°♄56'09		direct	-3528 Apr 12 j 05:26	11°♄40'16	
				evening set	-3528 Jul 26 j 03:32	19°♄04'00	
conjunction	-3534 May 25 j 16:29	4°♄16'07	-1°-13'-18				
minimum elong	-3534 May 25 j 16:32	4°♄16'08	1°13'16	conjunction	-3528 Aug 12 j 06:37	21°♄05'23	1°43'30
max. Earth dist.	-3534 May 26 j 09:17	4°♄21'32	10.08683 AU	minimum elong	-3528 Aug 12 j 06:34	21°♄05'22	1°43'38
morning rise	-3534 Jun 12 j 18:01	6°♄35'14		max. Earth dist.	-3528 Aug 12 j 07:58	21°♄05'47	10.89748 AU
retrograde	-3534 Sep 23 j 18:48	14°♄36'44		morning rise	-3528 Aug 29 j 04:33	23°♄05'17	
opposition	-3534 Nov 29 j 05:35	11°♄09'47	-1°-12'-25		-3528 Nov 26 j 22:16	0°♄	
min. Earth dist.	-3534 Nov 28 j 17:32	11°♄12'15	8.14452 AU	retrograde	-3528 Dec 05 j 20:12	0°♄04'06	
direct	-3533 Feb 05 j 00:52	7°♄40'00			-3528 Dec 14 j 18:29	30°♄R♄	
	-3533 May 15 j 17:02	15°♄		opposition	-3527 Feb 12 j 11:39	26°♄46'35	2°18'13
evening set	-3533 May 22 j 07:50	15°♄49'05		min. Earth dist.	-3527 Feb 12 j 12:05	26°♄46'30	8.95508 AU
				direct	-3527 Apr 24 j 17:52	23°♄23'12	
conjunction	-3533 Jun 09 j 10:04	18°♄06'32	0°-42'00		-3527 Aug 01 j 10:03	0°♄	
minimum elong	-3533 Jun 09 j 10:06	18°♄06'33	0°41'55	evening set	-3527 Aug 07 j 04:11	0°♄39'26	
max. Earth dist.	-3533 Jun 10 j 01:24	18°♄11'25	10.20773 AU				
morning rise	-3533 Jun 27 j 08:42	20°♄22'50		conjunction	-3527 Aug 24 j 02:12	2°♄38'12	2°01'38
retrograde	-3533 Oct 07 j 05:42	28°♄11'25		minimum elong	-3527 Aug 24 j 02:10	2°♄38'11	2°01'45
opposition	-3533 Dec 12 j 21:18	24°♄46'11	0°-32'-9	max. Earth dist.	-3527 Aug 23 j 23:45	2°♄37'29	11.00638 AU
min. Earth dist.	-3533 Dec 12 j 10:51	24°♄48'19	8.27374 AU	morning rise	-3527 Sep 09 j 19:45	4°♄35'40	
direct	-3532 Feb 19 j 09:28	21°♄16'59		retrograde	-3527 Dec 17 j 08:38	11°♄29'25	
evening set	-3532 Jun 04 j 16:06	29°♄17'17		opposition	-3526 Feb 24 j 11:56	8°♄12'50	2°37'05
	-3532 Jun 10 j 10:15	0°♄II		min. Earth dist.	-3526 Feb 24 j 14:55	8°♄12'17	9.05449 AU
conjunction	-3532 Jun 22 j 15:04	1°♄II31'41	0°-9'-12	direct	-3526 May 07 j 01:49	4°♄50'45	
minimum elong	-3532 Jun 22 j 15:04	1°♄II31'41	0°09'06	evening set	-3526 Aug 18 j 20:54	12°♄00'34	
behind sun begin	-3532 Jun 22 j 08:55	1°♄II29'46					
behind sun end	-3532 Jun 22 j 21:13	1°♄II33'35		conjunction	-3526 Sep 04 j 14:34	13°♄57'12	2°14'38
max. Earth dist.	-3532 Jun 23 j 03:42	1°♄II35'38	10.34425 AU	minimum elong	-3526 Sep 04 j 14:32	13°♄57'11	2°14'44
morning rise	-3532 Jul 10 j 09:42	3°♄II44'42		max. Earth dist.	-3526 Sep 04 j 09:11	13°♄55'37	11.09421 AU
asc. node	-3532 Oct 06 j 12:52	11°♄II11'50			-3526 Sep 13 j 13:42	15°♄	
retrograde	-3532 Oct 19 j 05:11	11°♄II20'43		morning rise	-3526 Sep 21 j 04:20	15°♄52'42	
opposition	-3532 Dec 25 j 04:56	7°♄II57'15	0°08'30	retrograde	-3526 Dec 28 j 20:41	22°♄43'10	
min. Earth dist.	-3532 Dec 24 j 20:10	7°♄II59'00	8.41497 AU	opposition	-3525 Mar 08 j 09:00	19°♄27'13	2°49'33
direct	-3531 Mar 04 j 10:18	4°♄II28'53		min. Earth dist.	-3525 Mar 08 j 13:44	19°♄26'21	9.13102 AU
evening set	-3531 Jun 18 j 12:24	12°♄II19'44		direct	-3525 May 19 j 03:13	16°♄06'21	
				evening set	-3525 Aug 30 j 07:04	23°♄10'51	
conjunction	-3531 Jul 06 j 07:04	14°♄II30'48	0°23'13				
minimum elong	-3531 Jul 06 j 07:03	14°♄II30'47	0°23'21	conjunction	-3525 Sep 15 j 21:18	25°♄05'54	2°22'20
max. Earth dist.	-3531 Jul 06 j 16:40	14°♄II33'45	10.48860 AU	minimum elong	-3525 Sep 15 j 21:18	25°♄05'54	2°22'24
morning rise	-3531 Jul 23 j 20:56	16°♄II40'20		max. Earth dist.	-3525 Sep 15 j 14:16	25°♄03'51	11.15793 AU
retrograde	-3531 Oct 31 j 19:59	24°♄II04'45		morning rise	-3525 Oct 02 j 08:06	27°♄00'01	
opposition	-3530 Jan 07 j 04:33	20°♄II42'58	0°47'22		-3525 Oct 30 j 08:59	0°♄	
min. Earth dist.	-3530 Jan 06 j 21:21	20°♄II44'23	8.56054 AU	retrograde	-3524 Jan 09 j 06:20	3°♄48'52	
direct	-3530 Mar 18 j 01:35	17°♄II15'41		opposition	-3524 Mar 19 j 04:21	0°♄33'15	2°55'32
evening set	-3530 Jul 01 j 20:36	24°♄II56'59		min. Earth dist.	-3524 Mar 19 j 11:06	0°♄32'00	9.18215 AU
					-3524 Mar 26 j 18:30	30°♄R♄	
conjunction	-3530 Jul 19 j 10:21	27°♄II04'40	0°53'32	direct	-3524 May 29 j 22:16	27°♄13'26	
minimum elong	-3530 Jul 19 j 10:18	27°♄II04'39	0°53'41		-3524 Jul 29 j 23:06	0°♄	
max. Earth dist.	-3530 Jul 19 j 17:11	27°♄II06'45	10.63331 AU	evening set	-3524 Sep 09 j 12:17	4°♄13'51	
morning rise	-3530 Aug 05 j 18:55	29°♄II10'45					
	-3530 Aug 12 j 17:52	0°♄		conjunction	-3524 Sep 25 j 23:53	6°♄07'51	2°24'38
retrograde	-3530 Nov 13 j 02:19	6°♄24'57		minimum elong	-3524 Sep 25 j 23:54	6°♄07'51	2°24'41
				max. Earth dist.	-3524 Sep 25 j 14:39	6°♄05'10	11.19548 AU

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 32

Attention, astronomical year style is used: The year -3524 in astronomical counting style is the year 3525 BCE in historical counting style.

morning rise	-3524 Oct 12 j 08:50	8° $\mathbb{M}$ 01'09		direct	-3517 Aug 18 j 21:24	16° $\mathbb{M}$ 03'17	
retrograde	-3523 Jan 19 j 16:57	14° $\mathbb{M}$ 50'04		evening set	-3517 Nov 26 j 12:29	23° $\mathbb{M}$ 14'59	
opposition	-3523 Mar 30 j 22:57	11° $\mathbb{M}$ 34'27	2°55'02				
min. Earth dist.	-3523 Mar 31 j 08:24	11° $\mathbb{M}$ 32'44	9.20621 AU	conjunction	-3517 Dec 13 j 07:04	25° $\mathbb{M}$ 17'07	0°25'09
direct	-3523 Jun 10 j 15:09	8° $\mathbb{M}$ 15'29		minimum elong	-3517 Dec 13 j 07:05	25° $\mathbb{M}$ 17'07	0°25'03
evening set	-3523 Sep 20 j 14:28	15° $\mathbb{M}$ 13'06		max. Earth dist.	-3517 Dec 12 j 17:45	25° $\mathbb{M}$ 13'03	10.71829 AU
				morning rise	-3517 Dec 30 j 05:08	27° $\mathbb{M}$ 20'25	
conjunction	-3523 Oct 07 j 00:19	17° $\mathbb{M}$ 06'38	2°21'36		-3516 Jan 22 j 11:21	0° $\mathbb{Z}$	
minimum elong	-3523 Oct 07 j 00:20	17° $\mathbb{M}$ 06'38	2°21'38	retrograde	-3516 Apr 12 j 21:07	4° $\mathbb{Z}$ 54'35	
max. Earth dist.	-3523 Oct 06 j 12:08	17° $\mathbb{M}$ 03'05	11.20564 AU	opposition	-3516 Jun 22 j 11:40	1° $\mathbb{Z}$ 30'47	0°11'49
morning rise	-3523 Oct 23 j 08:36	18° $\mathbb{M}$ 59'45		min. Earth dist.	-3516 Jun 22 j 22:03	1° $\mathbb{Z}$ 28'48	8.64601 AU
retrograde	-3522 Jan 31 j 03:07	25° $\mathbb{M}$ 50'18			-3516 Jul 13 j 01:31	30° $\mathbb{R}$ $\mathbb{M}$	
opposition	-3522 Apr 11 j 17:41	22° $\mathbb{M}$ 34'20	2°48'09	direct	-3516 Aug 30 j 04:06	28° $\mathbb{M}$ 10'41	
min. Earth dist.	-3522 Apr 12 j 05:02	22° $\mathbb{M}$ 32'16	9.20226 AU		-3516 Oct 15 j 09:38	0° $\mathbb{Z}$	
direct	-3522 Jun 22 j 04:58	19° $\mathbb{M}$ 15'59		desc. node	-3516 Oct 17 j 12:15	0° $\mathbb{Z}$ 09'45	
evening set	-3522 Oct 01 j 15:02	26° $\mathbb{M}$ 12'10		evening set	-3516 Dec 07 j 19:32	5° $\mathbb{Z}$ 30'04	
max. Earth dist.	-3522 Oct 17 j 10:48	28° $\mathbb{M}$ 01'53	11.18779 AU				
				conjunction	-3516 Dec 24 j 17:32	7° $\mathbb{Z}$ 35'06	0°-5'-41
conjunction	-3522 Oct 18 j 00:17	28° $\mathbb{M}$ 05'48	2°13'21	minimum elong	-3516 Dec 24 j 17:32	7° $\mathbb{Z}$ 35'06	0°05'49
minimum elong	-3522 Oct 18 j 00:19	28° $\mathbb{M}$ 05'49	2°13'22	behind sun begin	-3516 Dec 24 j 10:45	7° $\mathbb{Z}$ 33'01	
morning rise	-3522 Nov 03 j 08:47	29° $\mathbb{M}$ 59'17		behind sun end	-3516 Dec 25 j 00:18	7° $\mathbb{Z}$ 37'11	
	-3522 Nov 03 j 11:18	0° $\mathbb{Z}$		max. Earth dist.	-3516 Dec 24 j 05:50	7° $\mathbb{Z}$ 31'29	10.57390 AU
retrograde	-3521 Feb 11 j 18:52	6° $\mathbb{Z}$ 53'11		morning rise	-3515 Jan 10 j 19:46	9° $\mathbb{Z}$ 41'31	
opposition	-3521 Apr 23 j 14:06	3° $\mathbb{Z}$ 36'32	2°35'07	retrograde	-3515 Apr 26 j 11:03	17° $\mathbb{Z}$ 27'22	
min. Earth dist.	-3521 Apr 24 j 02:11	3° $\mathbb{Z}$ 34'20	9.16997 AU	opposition	-3515 Jul 05 j 16:08	14° $\mathbb{Z}$ 01'44	0°-26'-47
direct	-3521 Jul 03 j 20:31	0° $\mathbb{Z}$ 18'32		min. Earth dist.	-3515 Jul 06 j 00:25	14° $\mathbb{Z}$ 00'08	8.49888 AU
evening set	-3521 Oct 12 j 15:46	7° $\mathbb{Z}$ 14'40		direct	-3515 Sep 11 j 16:13	10° $\mathbb{Z}$ 40'30	
max. Earth dist.	-3521 Oct 28 j 11:28	9° $\mathbb{Z}$ 04'55	11.14186 AU	evening set	-3515 Dec 20 j 13:53	18° $\mathbb{Z}$ 08'56	
conjunction	-3521 Oct 29 j 01:26	9° $\mathbb{Z}$ 09'00	2°00'06	conjunction	-3514 Jan 06 j 15:25	20° $\mathbb{Z}$ 17'00	0°-37'00
minimum elong	-3521 Oct 29 j 01:28	9° $\mathbb{Z}$ 09'01	2°00'05	minimum elong	-3514 Jan 06 j 15:24	20° $\mathbb{Z}$ 17'00	0°37'09
morning rise	-3521 Nov 14 j 11:02	11° $\mathbb{Z}$ 03'26		max. Earth dist.	-3514 Jan 06 j 05:42	20° $\mathbb{Z}$ 13'57	10.42585 AU
retrograde	-3520 Feb 23 j 15:07	18° $\mathbb{Z}$ 02'18		morning rise	-3514 Jan 23 j 21:56	22° $\mathbb{Z}$ 26'40	
opposition	-3520 May 04 j 13:18	14° $\mathbb{Z}$ 44'41	2°16'10		-3514 Apr 18 j 08:31	0° $\mathbb{Z}$	
min. Earth dist.	-3520 May 05 j 01:57	14° $\mathbb{Z}$ 42'22	9.10972 AU	retrograde	-3514 May 10 j 09:03	0° $\mathbb{Z}$ 24'38	
direct	-3520 Jul 14 j 09:38	11° $\mathbb{Z}$ 26'48			-3514 Jun 01 j 10:58	30° $\mathbb{R}$ $\mathbb{Z}$	
evening set	-3520 Oct 22 j 18:53	18° $\mathbb{Z}$ 24'26		opposition	-3514 Jul 19 j 04:26	26° $\mathbb{Z}$ 57'15	-1°-5'-26
				min. Earth dist.	-3514 Jul 19 j 10:32	26° $\mathbb{Z}$ 56'03	8.35195 AU
conjunction	-3520 Nov 08 j 05:41	20° $\mathbb{Z}$ 20'00	1°42'09	direct	-3514 Sep 24 j 14:05	23° $\mathbb{Z}$ 34'43	
minimum elong	-3520 Nov 08 j 05:44	20° $\mathbb{Z}$ 20'01	1°42'06		-3514 Dec 23 j 22:39	0° $\mathbb{Z}$	
max. Earth dist.	-3520 Nov 07 j 14:16	20° $\mathbb{Z}$ 15'28	11.06874 AU	evening set	-3513 Jan 02 j 20:46	1° $\mathbb{Z}$ 13'15	
morning rise	-3520 Nov 24 j 17:27	22° $\mathbb{Z}$ 15'58					
retrograde	-3519 Mar 06 j 16:08	29° $\mathbb{Z}$ 21'26		conjunction	-3513 Jan 20 j 02:05	3° $\mathbb{Z}$ 24'27	-1°-7'-23
opposition	-3519 May 16 j 16:17	26° $\mathbb{Z}$ 02'37	1°51'43	minimum elong	-3513 Jan 20 j 02:03	3° $\mathbb{Z}$ 24'26	1°07'32
min. Earth dist.	-3519 May 17 j 06:01	26° $\mathbb{Z}$ 00'05	9.02322 AU	max. Earth dist.	-3513 Jan 19 j 19:27	3° $\mathbb{Z}$ 22'20	10.28143 AU
direct	-3519 Jul 26 j 00:49	22° $\mathbb{Z}$ 44'34		morning rise	-3513 Feb 06 j 12:45	5° $\mathbb{Z}$ 37'21	
evening set	-3519 Nov 03 j 02:08	29° $\mathbb{Z}$ 45'21		retrograde	-3513 May 24 j 16:26	13° $\mathbb{Z}$ 47'12	
	-3519 Nov 05 j 04:16	0° $\mathbb{M}$		opposition	-3513 Aug 02 j 00:28	10° $\mathbb{Z}$ 18'11	-1°-41'-57
				min. Earth dist.	-3513 Aug 02 j 04:01	10° $\mathbb{Z}$ 17'29	8.21276 AU
conjunction	-3519 Nov 19 j 14:49	1° $\mathbb{M}$ 42'41	1°19'55	direct	-3513 Oct 07 j 21:40	6° $\mathbb{Z}$ 54'16	
minimum elong	-3519 Nov 19 j 14:52	1° $\mathbb{M}$ 42'42	1°19'51	evening set	-3512 Jan 16 j 16:46	14° $\mathbb{Z}$ 43'28	
max. Earth dist.	-3519 Nov 18 j 22:29	1° $\mathbb{M}$ 37'49	10.97099 AU				
morning rise	-3519 Dec 06 j 05:37	3° $\mathbb{M}$ 40'41		conjunction	-3512 Feb 03 j 02:02	16° $\mathbb{Z}$ 57'44	-1°-34'-56
retrograde	-3518 Mar 19 j 01:13	10° $\mathbb{M}$ 54'22		minimum elong	-3512 Feb 03 j 01:59	16° $\mathbb{Z}$ 57'43	1°35'06
opposition	-3518 May 29 j 00:29	7° $\mathbb{M}$ 34'05	1°22'17	max. Earth dist.	-3512 Feb 02 j 23:36	16° $\mathbb{Z}$ 56'57	10.14827 AU
min. Earth dist.	-3518 May 29 j 14:25	7° $\mathbb{M}$ 31'30	8.91391 AU	morning rise	-3512 Feb 20 j 16:35	19° $\mathbb{Z}$ 13'42	
direct	-3518 Aug 06 j 20:52	4° $\mathbb{M}$ 15'36		retrograde	-3512 Jun 07 j 08:39	27° $\mathbb{Z}$ 34'21	
evening set	-3518 Nov 14 j 15:17	11° $\mathbb{M}$ 21'05		opposition	-3512 Aug 15 j 03:39	24° $\mathbb{Z}$ 04'00	-2°-13'-52
				min. Earth dist.	-3512 Aug 15 j 03:52	24° $\mathbb{Z}$ 03'57	8.08886 AU
conjunction	-3518 Dec 01 j 06:38	13° $\mathbb{M}$ 20'37	0°54'00	direct	-3512 Oct 20 j 13:57	20° $\mathbb{Z}$ 38'40	
minimum elong	-3518 Dec 01 j 06:40	13° $\mathbb{M}$ 20'37	0°53'55	evening set	-3511 Jan 30 j 01:50	28° $\mathbb{Z}$ 38'27	
max. Earth dist.	-3518 Nov 30 j 15:19	13° $\mathbb{M}$ 16'00	10.85255 AU		-3511 Feb 09 j 13:23	0° $\approx$	
	-3518 Dec 15 j 01:41	15° $\mathbb{M}$					
morning rise	-3518 Dec 18 j 00:53	15° $\mathbb{M}$ 21'05		conjunction	-3511 Feb 16 j 14:58	0° $\approx$ 55'32	-1°-57'-43
retrograde	-3517 Mar 31 j 17:54	22° $\mathbb{M}$ 44'26		minimum elong	-3511 Feb 16 j 14:54	0° $\approx$ 55'31	1°57'52
opposition	-3517 Jun 10 j 14:43	19° $\mathbb{M}$ 22'27	0°48'39	max. Earth dist.	-3511 Feb 16 j 17:00	0° $\approx$ 56'13	10.03400 AU
min. Earth dist.	-3517 Jun 11 j 03:21	19° $\mathbb{M}$ 20'04	8.78638 AU	morning rise	-3511 Mar 06 j 08:58	3° $\approx$ 14'15	



## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 33

Attention, astronomical year style is used: The year -3511 in astronomical counting style is the year 3512 BCE in historical counting style.

retrograde	-3511 Jun 22 j 07:58	11° <del>43</del> '38		direct	-3504 Jan 30 j 01:52	1° <del>8</del> '48'41	
opposition	-3511 Aug 29 j 12:51	8° <del>12</del> '16	-2°-38'-40	evening set	-3504 May 15 j 06:53	10° <del>8</del> '01'44	
min. Earth dist.	-3511 Aug 29 j 09:30	8° <del>12</del> '58	7.98767 AU				
direct	-3511 Nov 03 j 14:37	4° <del>45</del> '36		conjunction	-3504 Jun 02 j 10:04	12° <del>8</del> '20'27	0°-55'-59
evening set	-3510 Feb 13 j 22:37	12° <del>55</del> '04		minimum elong	-3504 Jun 02 j 10:07	12° <del>8</del> '20'28	0°55'56
	-3510 Mar 01 j 19:26	15° <del>5</del>		max. Earth dist.	-3504 Jun 03 j 02:23	12° <del>8</del> '25'41	10.15044 AU
				morning rise	-3504 Jun 20 j 10:20	14° <del>8</del> '38'11	
conjunction	-3510 Mar 03 j 15:31	15° <del>14</del> '35	-2°-13'-49		-3504 Jun 23 j 08:09	15° <del>8</del>	
minimum elong	-3510 Mar 03 j 15:28	15° <del>14</del> '34	2°13'57	retrograde	-3504 Sep 30 j 19:09	22° <del>8</del> '32'56	
max. Earth dist.	-3510 Mar 03 j 21:59	15° <del>16</del> '43	9.94603 AU	opposition	-3504 Dec 06 j 09:03	19° <del>8</del> '07'12	0°-49'-55
morning rise	-3510 Mar 21 j 12:39	17° <del>35</del> '31		min. Earth dist.	-3504 Dec 05 j 20:21	19° <del>8</del> '09'47	8.21530 AU
retrograde	-3510 Jul 07 j 11:26	26° <del>10</del> '37		direct	-3503 Feb 12 j 14:00	15° <del>8</del> '38'05	
opposition	-3510 Sep 13 j 02:39	22° <del>38</del> '42	-2°-54'-3	evening set	-3503 May 29 j 20:39	23° <del>8</del> '42'44	
min. Earth dist.	-3510 Sep 12 j 19:56	22° <del>40</del> '05	7.91585 AU				
direct	-3510 Nov 17 j 23:50	19° <del>10</del> '48		conjunction	-3503 Jun 16 j 21:19	25° <del>8</del> '58'35	0°-23'-31
evening set	-3509 Mar 01 j 04:50	27° <del>28</del> '08		minimum elong	-3503 Jun 16 j 21:20	25° <del>8</del> '58'35	0°23'26
				max. Earth dist.	-3503 Jun 17 j 12:38	26° <del>8</del> '03'25	10.28532 AU
conjunction	-3509 Mar 19 j 01:20	29° <del>49</del> '32	-2°-21'-43	morning rise	-3503 Jul 04 j 17:55	28° <del>8</del> '13'08	
minimum elong	-3509 Mar 19 j 01:20	29° <del>49</del> '32	2°21'48		-3503 Jul 19 j 12:08	0° <del>II</del>	
max. Earth dist.	-3509 Mar 19 j 11:43	29° <del>52</del> '59	9.89046 AU	retrograde	-3503 Oct 14 j 01:03	5° <del>II</del> '55'00	
	-3509 Mar 20 j 08:51	0° <del>X</del>		opposition	-3503 Dec 19 j 20:43	2° <del>II</del> '31'08	0°-9'-3
morning rise	-3509 Apr 06 j 01:15	2° <del>X</del> '12'03		min. Earth dist.	-3503 Dec 19 j 09:23	2° <del>II</del> '33'25	8.35640 AU
retrograde	-3509 Jul 22 j 15:22	10° <del>X</del> '49'04			-3502 Jan 24 j 03:33	30° <del>R</del> '8	
opposition	-3509 Sep 27 j 18:52	7° <del>X</del> '17'05	-2°-58'-22	direct	-3502 Feb 26 j 17:41	29° <del>8</del> '02'54	
min. Earth dist.	-3509 Sep 27 j 09:32	7° <del>X</del> '19'03	7.87837 AU	asc. node	-3502 Mar 14 j 07:53	29° <del>8</del> '15'33	
direct	-3509 Dec 02 j 15:42	3° <del>X</del> '48'10			-3502 Apr 01 j 04:58	0° <del>II</del>	
evening set	-3508 Mar 15 j 17:32	12° <del>X</del> '10'49		evening set	-3502 Jun 12 j 22:56	6° <del>II</del> '58'08	
conjunction	-3508 Apr 02 j 17:13	14° <del>X</del> '33'24	-2°-20'-29	conjunction	-3502 Jun 30 j 19:47	9° <del>II</del> '10'43	0°09'21
minimum elong	-3508 Apr 02 j 17:15	14° <del>X</del> '33'24	2°20'33	minimum elong	-3502 Jun 30 j 19:47	9° <del>II</del> '10'43	0°09'29
max. Earth dist.	-3508 Apr 03 j 06:33	14° <del>X</del> '37'49	9.87132 AU	behind sun begin	-3502 Jun 30 j 13:47	9° <del>II</del> '08'52	
morning rise	-3508 Apr 20 j 19:18	16° <del>X</del> '56'42		behind sun end	-3502 Jul 01 j 01:47	9° <del>II</del> '12'34	
retrograde	-3508 Aug 05 j 16:48	25° <del>X</del> '31'30		max. Earth dist.	-3502 Jul 01 j 08:51	9° <del>II</del> '14'46	10.43123 AU
opposition	-3508 Oct 11 j 11:04	21° <del>X</del> '59'58	-2°-50'-59	morning rise	-3502 Jul 18 j 11:45	11° <del>II</del> '21'47	
min. Earth dist.	-3508 Oct 11 j 00:05	22° <del>X</del> '02'17	7.87808 AU	retrograde	-3502 Oct 26 j 21:56	18° <del>II</del> '51'21	
direct	-3508 Dec 16 j 11:54	18° <del>X</del> '30'18		opposition	-3501 Jan 02 j 00:11	15° <del>II</del> '29'20	0°30'51
evening set	-3507 Mar 31 j 08:37	26° <del>X</del> '55'09		min. Earth dist.	-3501 Jan 01 j 15:22	15° <del>II</del> '31'05	8.50464 AU
				direct	-3501 Mar 12 j 12:00	12° <del>II</del> '02'07	
conjunction	-3507 Apr 18 j 10:52	29° <del>X</del> '18'05	-2°-10'-7	evening set	-3501 Jun 26 j 13:08	19° <del>II</del> '47'39	
minimum elong	-3507 Apr 18 j 10:56	29° <del>X</del> '18'06	2°10'09				
max. Earth dist.	-3507 Apr 19 j 02:19	29° <del>X</del> '23'11	9.89027 AU	conjunction	-3501 Jul 14 j 05:09	21° <del>II</del> '56'47	0°40'45
	-3507 Apr 23 j 17:32	0° <del>Y</del>		minimum elong	-3501 Jul 14 j 05:07	21° <del>II</del> '56'47	0°40'52
morning rise	-3507 May 06 j 14:17	1° <del>Y</del> '41'18		max. Earth dist.	-3501 Jul 14 j 14:37	21° <del>II</del> '59'41	10.57966 AU
retrograde	-3507 Aug 20 j 12:50	10° <del>Y</del> '09'56		morning rise	-3501 Jul 31 j 15:56	24° <del>II</del> '04'20	
opposition	-3507 Oct 26 j 01:00	6° <del>Y</del> '39'22	-2°-32'-27		-3501 Sep 29 j 11:46	0° <del>Θ</del>	
min. Earth dist.	-3507 Oct 25 j 12:55	6° <del>Y</del> '41'53	7.91528 AU	retrograde	-3501 Nov 08 j 07:10	1° <del>Θ</del> '22'50	
direct	-3507 Dec 31 j 09:48	3° <del>Y</del> '09'17			-3501 Dec 18 j 23:05	30° <del>R</del> 'II	
evening set	-3506 Apr 15 j 22:03	11° <del>Y</del> '33'01		opposition	-3500 Jan 14 j 20:08	28° <del>II</del> '02'31	1°07'54
				min. Earth dist.	-3500 Jan 14 j 14:27	28° <del>II</del> '03'37	8.65160 AU
conjunction	-3506 May 04 j 01:57	13° <del>Y</del> '55'25	-1°-51'-26	direct	-3500 Mar 24 j 23:35	24° <del>II</del> '36'27	
minimum elong	-3506 May 04 j 02:01	13° <del>Y</del> '55'26	1°51'25		-3500 Jun 19 j 07:10	0° <del>Θ</del>	
max. Earth dist.	-3506 May 04 j 18:38	14° <del>Y</del> '00'54	9.94611 AU	evening set	-3500 Jul 08 j 15:12	2° <del>Θ</del> '12'32	
morning rise	-3506 May 22 j 05:40	16° <del>Y</del> '17'39					
retrograde	-3506 Sep 04 j 01:17	24° <del>Y</del> '36'52		conjunction	-3500 Jul 26 j 01:50	4° <del>Θ</del> '18'15	1°09'21
opposition	-3506 Nov 09 j 10:23	21° <del>Y</del> '07'39	-2°-4'-24	minimum elong	-3500 Jul 26 j 01:47	4° <del>Θ</del> '18'14	1°09'29
min. Earth dist.	-3506 Nov 08 j 21:43	21° <del>Y</del> '10'17	7.98747 AU	max. Earth dist.	-3500 Jul 26 j 06:48	4° <del>Θ</del> '19'45	10.72253 AU
direct	-3505 Jan 15 j 07:29	17° <del>Y</del> '37'32		morning rise	-3500 Aug 12 j 07:19	6° <del>Θ</del> '22'25	
evening set	-3505 May 01 j 06:33	25° <del>Y</del> '57'10		retrograde	-3500 Nov 19 j 09:00	13° <del>Θ</del> '31'35	
				opposition	-3499 Jan 26 j 09:06	10° <del>Θ</del> '12'46	1°40'39
conjunction	-3505 May 19 j 10:49	28° <del>Y</del> '18'07	-1°-26'-2	min. Earth dist.	-3499 Jan 26 j 06:04	10° <del>Θ</del> '13'21	8.78961 AU
minimum elong	-3505 May 19 j 10:53	28° <del>Y</del> '18'09	1°26'00	direct	-3499 Apr 07 j 02:21	6° <del>Θ</del> '47'57	
max. Earth dist.	-3505 May 20 j 03:41	28° <del>Y</del> '23'37	10.03486 AU	evening set	-3499 Jul 21 j 06:10	14° <del>Θ</del> '15'17	
	-3505 Jun 01 j 13:16	0° <del>8</del>					
morning rise	-3505 Jun 06 j 13:31	0° <del>8</del> '38'29		conjunction	-3499 Aug 07 j 11:27	16° <del>Θ</del> '17'53	1°34'08
retrograde	-3505 Sep 18 j 03:28	8° <del>8</del> '46'01		minimum elong	-3499 Aug 07 j 11:24	16° <del>Θ</del> '17'52	1°34'16
opposition	-3505 Nov 23 j 13:21	5° <del>8</del> '18'27	-1°-29'-17	max. Earth dist.	-3499 Aug 07 j 12:41	16° <del>Θ</del> '18'15	10.85322 AU
min. Earth dist.	-3505 Nov 23 j 00:29	5° <del>8</del> '21'06	8.08971 AU	morning rise	-3499 Aug 24 j 11:44	18° <del>Θ</del> '18'58	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 34

Attention, astronomical year style is used: The year -3499 in astronomical counting style is the year 3500 BCE in historical counting style.

retrograde	-3499 Dec 01 j 06:01	25° $\overline{5}$ 20'36				-3492 Apr 06 j 06:11	30° $\overline{R}$ $\overline{M}$	
opposition	-3498 Feb 07 j 16:01	22° $\overline{5}$ 03'01	2°08'07	opposition		-3492 Apr 17 j 22:26	29° $\overline{M}$ 09'22	2°41'30
min. Earth dist.	-3498 Feb 07 j 15:20	22° $\overline{5}$ 03'08	8.91296 AU	min. Earth dist.		-3492 Apr 18 j 10:45	29° $\overline{M}$ 07'07	9.17050 AU
direct	-3498 Apr 19 j 19:19	18° $\overline{5}$ 39'28		direct		-3492 Jun 28 j 07:21	25° $\overline{M}$ 50'37	
evening set	-3498 Aug 02 j 11:12	25° $\overline{5}$ 58'56				-3492 Sep 11 j 14:36	0° $\overline{A}$	
				evening set		-3492 Oct 07 j 08:52	2° $\overline{A}$ 46'58	
conjunction	-3498 Aug 19 j 11:28	27° $\overline{5}$ 58'47	1°54'23					
minimum elong	-3498 Aug 19 j 11:25	27° $\overline{5}$ 58'46	1°54'30	conjunction		-3492 Oct 23 j 18:14	4° $\overline{A}$ 41'05	2°06'23
max. Earth dist.	-3498 Aug 19 j 09:59	27° $\overline{5}$ 58'21	10.96701 AU	minimum elong		-3492 Oct 23 j 18:17	4° $\overline{A}$ 41'06	2°06'22
morning rise	-3498 Sep 05 j 06:50	29° $\overline{5}$ 57'15		max. Earth dist.		-3492 Oct 23 j 03:17	4° $\overline{A}$ 36'43	11.14725 AU
	-3498 Sep 05 j 16:22	0° $\overline{Q}$		morning rise		-3492 Nov 09 j 03:27	6° $\overline{A}$ 35'12	
retrograde	-3498 Dec 12 j 21:31	6° $\overline{Q}$ 53'07		retrograde		-3491 Feb 17 j 21:44	13° $\overline{A}$ 32'04	
opposition	-3497 Feb 19 j 18:23	3° $\overline{Q}$ 36'27	2°29'40	opposition		-3491 Apr 29 j 20:18	10° $\overline{A}$ 14'18	2°25'03
min. Earth dist.	-3497 Feb 19 j 20:23	3° $\overline{Q}$ 36'05	9.01751 AU	min. Earth dist.		-3491 Apr 30 j 09:49	10° $\overline{A}$ 11'49	9.12078 AU
direct	-3497 May 02 j 05:28	0° $\overline{Q}$ 14'05		direct		-3491 Jul 09 j 20:52	6° $\overline{A}$ 55'44	
evening set	-3497 Aug 14 j 07:35	7° $\overline{Q}$ 26'42		evening set		-3491 Oct 18 j 10:44	13° $\overline{A}$ 52'59	
conjunction	-3497 Aug 31 j 03:12	9° $\overline{Q}$ 24'13	2°09'39	conjunction		-3491 Nov 03 j 20:57	15° $\overline{A}$ 48'07	1°50'25
minimum elong	-3497 Aug 31 j 03:10	9° $\overline{Q}$ 24'13	2°09'45	minimum elong		-3491 Nov 03 j 21:00	15° $\overline{A}$ 48'08	1°50'22
max. Earth dist.	-3497 Aug 30 j 22:55	9° $\overline{Q}$ 22'58	11.06031 AU	max. Earth dist.		-3491 Nov 03 j 05:36	15° $\overline{A}$ 43'36	11.08528 AU
morning rise	-3497 Sep 16 j 18:22	11° $\overline{Q}$ 20'31		morning rise		-3491 Nov 20 j 07:52	17° $\overline{A}$ 43'31	
	-3497 Oct 21 j 10:39	15° $\overline{Q}$		retrograde		-3490 Mar 01 j 20:12	24° $\overline{A}$ 46'19	
retrograde	-3497 Dec 24 j 10:12	18° $\overline{Q}$ 12'22		opposition		-3490 May 11 j 21:23	21° $\overline{A}$ 27'26	2°02'54
	-3496 Mar 01 j 21:25	15° $\overline{R}$ $\overline{Q}$		min. Earth dist.		-3490 May 12 j 10:40	21° $\overline{A}$ 24'59	9.04596 AU
opposition	-3496 Mar 02 j 17:14	14° $\overline{Q}$ 56'20	2°44'56	direct		-3490 Jul 21 j 12:50	18° $\overline{A}$ 08'52	
min. Earth dist.	-3496 Mar 02 j 22:31	14° $\overline{Q}$ 55'21	9.10003 AU	evening set		-3490 Oct 29 j 15:48	25° $\overline{A}$ 08'33	
direct	-3496 May 13 j 08:53	11° $\overline{Q}$ 35'01						
	-3496 Jul 20 j 14:39	15° $\overline{Q}$		conjunction		-3490 Nov 15 j 03:47	27° $\overline{A}$ 05'12	1°29'57
evening set	-3496 Aug 24 j 20:47	18° $\overline{Q}$ 41'51		minimum elong		-3490 Nov 15 j 03:50	27° $\overline{A}$ 05'13	1°29'53
				max. Earth dist.		-3490 Nov 14 j 13:09	27° $\overline{A}$ 00'52	10.99940 AU
conjunction	-3496 Sep 10 j 12:23	20° $\overline{Q}$ 37'34	2°19'39	morning rise		-3490 Dec 01 j 17:08	29° $\overline{A}$ 02'24	
minimum elong	-3496 Sep 10 j 12:22	20° $\overline{Q}$ 37'33	2°19'44			-3490 Dec 10 j 02:05	0° $\overline{M}$	
max. Earth dist.	-3496 Sep 10 j 04:26	20° $\overline{Q}$ 35'14	11.13036 AU	retrograde		-3489 Mar 14 j 03:43	6° $\overline{M}$ 12'43	
morning rise	-3496 Sep 27 j 00:25	22° $\overline{Q}$ 32'16		opposition		-3489 May 24 j 03:15	2° $\overline{M}$ 52'32	1°35'30
retrograde	-3495 Jan 03 j 18:40	29° $\overline{Q}$ 21'47		min. Earth dist.		-3489 May 24 j 15:41	2° $\overline{M}$ 50'13	8.94853 AU
opposition	-3495 Mar 14 j 13:23	26° $\overline{Q}$ 05'59	2°53'44			-3489 Jul 10 j 01:25	30° $\overline{R}$ $\overline{A}$	
min. Earth dist.	-3495 Mar 14 j 21:11	26° $\overline{Q}$ 04'33	9.15802 AU	direct		-3489 Aug 02 j 06:30	29° $\overline{A}$ 33'47	
direct	-3495 May 25 j 06:58	22° $\overline{Q}$ 45'33				-3489 Aug 25 j 02:33	0° $\overline{M}$	
evening set	-3495 Sep 05 j 04:07	29° $\overline{Q}$ 47'49		evening set		-3489 Nov 10 j 02:09	6° $\overline{M}$ 37'23	
	-3495 Sep 06 j 22:53	0° $\overline{M}$						
conjunction	-3495 Sep 21 j 16:44	1° $\overline{M}$ 42'16	2°24'16	conjunction		-3489 Nov 26 j 16:24	8° $\overline{M}$ 36'03	1°05'31
minimum elong	-3495 Sep 21 j 16:44	1° $\overline{M}$ 42'16	2°24'21	minimum elong		-3489 Nov 26 j 16:27	8° $\overline{M}$ 36'04	1°05'26
max. Earth dist.	-3495 Sep 21 j 06:21	1° $\overline{M}$ 39'15	11.17503 AU	max. Earth dist.		-3489 Nov 26 j 01:58	8° $\overline{M}$ 31'43	10.89251 AU
morning rise	-3495 Oct 08 j 02:35	3° $\overline{M}$ 35'57		morning rise		-3489 Dec 13 j 09:02	10° $\overline{M}$ 35'32	
retrograde	-3494 Jan 15 j 05:00	10° $\overline{M}$ 24'50				-3488 Jan 24 j 03:06	15° $\overline{M}$	
opposition	-3494 Mar 26 j 08:07	7° $\overline{M}$ 08'57	2°56'02	retrograde		-3488 Mar 25 j 16:49	17° $\overline{M}$ 54'50	
min. Earth dist.	-3494 Mar 26 j 17:21	7° $\overline{M}$ 07'16	9.18954 AU			-3488 May 29 j 15:32	15° $\overline{R}$ $\overline{M}$	
direct	-3494 Jun 06 j 03:05	3° $\overline{M}$ 49'15		opposition		-3488 Jun 04 j 14:50	14° $\overline{M}$ 33'11	1°03'31
evening set	-3494 Sep 16 j 07:23	10° $\overline{M}$ 48'11		min. Earth dist.		-3488 Jun 05 j 02:41	14° $\overline{M}$ 30'58	8.83193 AU
				direct		-3488 Aug 13 j 02:49	11° $\overline{M}$ 14'01	
conjunction	-3494 Oct 02 j 18:02	12° $\overline{M}$ 41'58	2°23'32			-3488 Oct 21 j 05:52	15° $\overline{M}$	
minimum elong	-3494 Oct 02 j 18:03	12° $\overline{M}$ 41'58	2°23'35	evening set		-3488 Nov 20 j 19:50	18° $\overline{M}$ 23'10	
max. Earth dist.	-3494 Oct 02 j 06:36	12° $\overline{M}$ 38'38	11.19285 AU					
morning rise	-3494 Oct 19 j 02:29	14° $\overline{M}$ 35'11		conjunction		-3488 Dec 07 j 12:53	20° $\overline{M}$ 24'14	0°37'47
retrograde	-3493 Jan 26 j 16:01	21° $\overline{M}$ 25'05		minimum elong		-3488 Dec 07 j 12:54	20° $\overline{M}$ 24'14	0°37'42
opposition	-3493 Apr 07 j 02:42	18° $\overline{M}$ 08'50	2°51'55	max. Earth dist.		-3488 Dec 06 j 22:42	20° $\overline{M}$ 19'55	10.76848 AU
min. Earth dist.	-3493 Apr 07 j 13:15	18° $\overline{M}$ 06'54	9.19366 AU	morning rise		-3488 Dec 24 j 09:22	22° $\overline{M}$ 26'23	
direct	-3493 Jun 17 j 17:44	14° $\overline{M}$ 49'43		retrograde		-3487 Apr 07 j 15:16	29° $\overline{M}$ 55'58	
evening set	-3493 Sep 27 j 08:25	21° $\overline{M}$ 46'39		opposition		-3487 Jun 17 j 08:49	26° $\overline{M}$ 32'47	0°27'53
				min. Earth dist.		-3487 Jun 17 j 19:58	26° $\overline{M}$ 30'40	8.70065 AU
conjunction	-3493 Oct 13 j 17:59	23° $\overline{M}$ 40'18	2°17'31	direct		-3487 Aug 25 j 06:57	23° $\overline{M}$ 12'57	
minimum elong	-3493 Oct 13 j 18:00	23° $\overline{M}$ 40'19	2°17'32			-3487 Nov 28 j 21:05	0° $\overline{A}$	
max. Earth dist.	-3493 Oct 13 j 04:52	23° $\overline{M}$ 36'30	11.18344 AU	evening set		-3487 Dec 02 j 22:31	0° $\overline{A}$ 29'11	
morning rise	-3493 Oct 30 j 02:13	25° $\overline{M}$ 33'41						
	-3493 Dec 13 j 02:03	0° $\overline{A}$		conjunction		-3487 Dec 19 j 18:53	2° $\overline{A}$ 32'59	0°07'43
retrograde	-3492 Feb 07 j 05:33	2° $\overline{A}$ 26'15		minimum elong		-3487 Dec 19 j 18:54	2° $\overline{A}$ 32'59	0°07'37
				behind sun begin		-3487 Dec 19 j 12:29	2° $\overline{A}$ 31'02	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 35

Attention, astronomical year style is used: The year -3487 in astronomical counting style is the year 3488 BCE in historical counting style.

behind sun end	-3487 Dec 20 j 01:18	2°♂34'56		conjunction	-3480 Mar 11 j 21:15	23°♂52'55	-2°-19'-18
max. Earth dist.	-3487 Dec 19 j 06:46	2°♂29'15	10.63217 AU	minimum elong	-3480 Mar 11 j 21:14	23°♂52'54	2°19'24
morning rise	-3486 Jan 05 j 19:25	4°♂38'07		max. Earth dist.	-3480 Mar 12 j 04:35	23°♂55'20	9.92633 AU
desc. node	-3486 Mar 22 j 22:17	11°♂37'09		morning rise	-3480 Mar 29 j 20:05	26°♂14'39	
retrograde	-3486 Apr 21 j 00:15	12°♂19'03			-3480 Apr 29 j 13:55	0°♂	
opposition	-3486 Jun 30 j 10:16	8°♂54'14	0°-10'-11	retrograde	-3480 Jul 15 j 14:58	4°♂50'45	
min. Earth dist.	-3486 Jun 30 j 19:22	8°♂52'29	8.56019 AU	opposition	-3480 Sep 20 j 23:18	1°♂19'25	-2°-57'-41
direct	-3486 Sep 06 j 17:08	5°♂33'35		min. Earth dist.	-3480 Sep 20 j 16:21	1°♂20'52	7.90541 AU
evening set	-3486 Dec 15 j 11:50	12°♂58'15			-3480 Oct 07 j 06:45	30°♂	
				direct	-3480 Nov 25 j 20:10	27°♂51'30	
conjunction	-3485 Jan 01 j 11:53	15°♂05'01	0°-23'-38		-3479 Jan 13 j 03:12	0°♂	
minimum elong	-3485 Jan 01 j 11:52	15°♂05'01	0°23'46	evening set	-3479 Mar 09 j 12:38	6°♂11'45	
max. Earth dist.	-3485 Jan 01 j 02:55	15°♂02'13	10.48946 AU				
morning rise	-3485 Jan 18 j 16:29	17°♂13'18		conjunction	-3479 Mar 27 j 10:53	8°♂33'43	-2°-21'-59
retrograde	-3485 May 04 j 18:45	25°♂06'15		minimum elong	-3479 Mar 27 j 10:53	8°♂33'43	2°22'04
opposition	-3485 Jul 13 j 19:29	21°♂39'49	0°-49'-4	max. Earth dist.	-3479 Mar 27 j 21:47	8°♂37'21	9.88902 AU
min. Earth dist.	-3485 Jul 14 j 01:36	21°♂38'38	8.41696 AU	morning rise	-3479 Apr 14 j 12:04	10°♂56'37	
direct	-3485 Sep 19 j 11:37	18°♂18'10		retrograde	-3479 Jul 30 j 17:15	19°♂32'29	
evening set	-3485 Dec 28 j 13:33	25°♂52'25		opposition	-3479 Oct 05 j 15:47	16°♂01'19	-2°-55'-17
				min. Earth dist.	-3479 Oct 05 j 06:17	16°♂03'18	7.88608 AU
conjunction	-3484 Jan 14 j 17:21	28°♂02'17	0°-54'-39	direct	-3479 Dec 10 j 14:52	12°♂32'28	
minimum elong	-3484 Jan 14 j 17:19	28°♂02'16	0°54'48	evening set	-3478 Mar 25 j 03:05	20°♂56'23	
max. Earth dist.	-3484 Jan 14 j 11:39	28°♂00'28	10.34715 AU				
	-3484 Jan 30 j 05:53	0°♂		conjunction	-3478 Apr 12 j 04:22	23°♂19'09	-2°-15'-27
morning rise	-3484 Feb 01 j 02:03	0°♂13'46		minimum elong	-3478 Apr 12 j 04:24	23°♂19'10	2°15'30
retrograde	-3484 May 17 j 23:36	8°♂18'42		max. Earth dist.	-3478 Apr 12 j 18:31	23°♂23'51	9.88825 AU
opposition	-3484 Jul 26 j 12:22	4°♂50'45	-1°-26'-46	morning rise	-3478 Apr 30 j 07:14	25°♂42'24	
min. Earth dist.	-3484 Jul 26 j 15:19	4°♂50'10	8.27807 AU		-3478 Jun 04 j 21:54	0°♂	
direct	-3484 Oct 01 j 14:29	1°♂27'56		retrograde	-3478 Aug 14 j 16:01	4°♂13'55	
evening set	-3483 Jan 10 j 04:21	9°♂12'33		opposition	-3478 Oct 20 j 06:56	0°♂43'19	-2°-41'-23
				min. Earth dist.	-3478 Oct 19 j 19:21	0°♂45'44	7.90373 AU
conjunction	-3483 Jan 27 j 11:51	11°♂25'27	-1°-23'-39		-3478 Oct 28 j 23:28	30°♂	
minimum elong	-3483 Jan 27 j 11:48	11°♂25'26	1°23'48	direct	-3478 Dec 25 j 12:05	27°♂13'47	
max. Earth dist.	-3483 Jan 27 j 09:05	11°♂24'33	10.21263 AU		-3477 Feb 19 j 10:48	0°♂	
morning rise	-3483 Feb 14 j 00:34	13°♂40'03		evening set	-3477 Apr 09 j 17:52	5°♂38'07	
retrograde	-3483 Jun 01 j 13:45	21°♂56'10					
opposition	-3483 Aug 09 j 12:52	18°♂26'54	-2°00'-55	conjunction	-3477 Apr 27 j 21:20	8°♂00'47	-2°00'-9
min. Earth dist.	-3483 Aug 09 j 12:57	18°♂26'53	8.15093 AU	minimum elong	-3477 Apr 27 j 21:24	8°♂00'49	2°00'10
direct	-3483 Oct 15 j 01:54	15°♂02'49		max. Earth dist.	-3477 Apr 28 j 13:37	8°♂06'10	9.92482 AU
evening set	-3482 Jan 24 j 08:03	22°♂57'54		morning rise	-3477 May 16 j 00:56	10°♂23'29	
				retrograde	-3477 Aug 29 j 08:36	18°♂46'58	
conjunction	-3482 Feb 10 j 19:16	25°♂13'39	-1°-48'-41	opposition	-3477 Nov 03 j 18:31	15°♂17'20	-2°-17'-10
minimum elong	-3482 Feb 10 j 19:12	25°♂13'38	1°48'49	min. Earth dist.	-3477 Nov 03 j 05:56	15°♂19'58	7.95752 AU
max. Earth dist.	-3482 Feb 10 j 19:45	25°♂13'49	10.09338 AU	direct	-3476 Jan 09 j 09:39	11°♂47'25	
morning rise	-3482 Feb 28 j 11:43	27°♂31'07		evening set	-3476 Apr 24 j 05:02	20°♂08'58	
	-3482 Mar 20 j 14:48	0°♂					
retrograde	-3482 Jun 16 j 10:56	5°♂56'44		conjunction	-3476 May 12 j 09:25	22°♂30'37	-1°-37'-24
opposition	-3482 Aug 23 j 19:56	2°♂26'23	-2°-28'-59	minimum elong	-3476 May 12 j 09:29	22°♂30'38	1°37'23
min. Earth dist.	-3482 Aug 23 j 17:34	2°♂26'53	8.04266 AU	max. Earth dist.	-3476 May 13 j 02:32	22°♂36'12	9.99620 AU
	-3482 Sep 26 j 03:33	30°♂		morning rise	-3476 May 30 j 12:31	24°♂51'49	
direct	-3482 Oct 28 j 23:02	29°♂00'57			-3476 Jul 14 j 06:34	0°♂	
	-3482 Nov 30 j 08:54	0°♂		retrograde	-3476 Sep 11 j 16:04	3°♂04'31	
evening set	-3481 Feb 08 j 00:03	7°♂05'58			-3476 Nov 12 j 05:34	30°♂	
				min. Earth dist.	-3476 Nov 16 j 11:54	29°♂38'50	8.04376 AU
conjunction	-3481 Feb 25 j 15:03	9°♂24'16	-2°-7'-48	opposition	-3476 Nov 17 j 00:29	29°♂36'14	-1°-44'-47
minimum elong	-3481 Feb 25 j 15:00	9°♂24'15	2°07'55	direct	-3475 Jan 23 j 05:41	26°♂06'16	
max. Earth dist.	-3481 Feb 25 j 19:01	9°♂25'34	9.99613 AU		-3475 Apr 01 j 21:16	0°♂	
morning rise	-3481 Mar 15 j 10:55	11°♂44'08		evening set	-3475 May 09 j 09:05	4°♂22'14	
	-3481 Apr 11 j 01:42	15°♂					
retrograde	-3481 Jul 01 j 12:19	20°♂16'38		conjunction	-3475 May 27 j 12:57	6°♂42'00	-1°-9'-7
opposition	-3481 Sep 07 j 07:57	16°♂45'34	-2°-48'-33	minimum elong	-3475 May 27 j 13:01	6°♂42'01	1°09'04
min. Earth dist.	-3481 Sep 07 j 03:19	16°♂46'32	7.95918 AU	max. Earth dist.	-3475 May 28 j 05:33	6°♂47'22	10.09734 AU
	-3481 Sep 29 j 17:08	15°♂		morning rise	-3475 Jun 14 j 14:18	9°♂00'55	
direct	-3481 Nov 12 j 06:11	13°♂18'48			-3475 Aug 08 j 22:28	15°♂	
	-3481 Dec 24 j 21:10	15°♂		retrograde	-3475 Sep 25 j 12:00	17°♂01'12	
evening set	-3480 Feb 23 j 02:30	21°♂32'28			-3475 Nov 13 j 00:59	15°♂	
				opposition	-3475 Nov 30 j 23:21	13°♂34'30	-1°-6'-55

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Attention, astronomical year style is used: The year -3475 in astronomical counting style is the year 3476 BCE in historical counting style.

min. Earth dist.	-3475 Nov 30 j 11:42	13° $\text{U}$ 36'53	8.15659 AU	retrograde	-3469 Dec 08 j 06:18	2° $\text{Q}$ 13'12	
direct	-3474 Feb 06 j 20:39	10° $\text{U}$ 04'49			-3468 Jan 31 j 12:59	30° $\text{R}$ 28	
	-3474 Apr 26 j 22:17	15° $\text{U}$		opposition	-3468 Feb 15 j 00:20	28° $\text{U}$ 55'48	2°21'09
evening set	-3474 May 24 j 03:26	18° $\text{U}$ 13'08		min. Earth dist.	-3468 Feb 15 j 00:57	28° $\text{U}$ 55'41	8.97169 AU
				direct	-3468 Apr 26 j 08:43	25° $\text{U}$ 32'34	
conjunction	-3474 Jun 11 j 05:20	20° $\text{U}$ 30'18	0°-37'-27		-3468 Jul 14 j 01:29	0° $\text{Q}$	
minimum elong	-3474 Jun 11 j 05:22	20° $\text{U}$ 30'19	0°37'22	evening set	-3468 Aug 08 j 16:00	2° $\text{Q}$ 47'42	
max. Earth dist.	-3474 Jun 11 j 20:03	20° $\text{U}$ 34'59	10.22133 AU				
morning rise	-3474 Jun 29 j 03:44	22° $\text{U}$ 46'18		conjunction	-3468 Aug 25 j 13:28	4° $\text{Q}$ 46'06	2°03'41
	-3474 Sep 14 j 05:52	0° $\text{II}$		minimum elong	-3468 Aug 25 j 13:25	4° $\text{Q}$ 46'05	2°03'47
retrograde	-3474 Oct 08 j 21:19	0° $\text{II}$ 33'37		max. Earth dist.	-3468 Aug 25 j 10:41	4° $\text{Q}$ 45'17	11.02212 AU
	-3474 Nov 02 j 16:38	30° $\text{R}$ 8		morning rise	-3468 Sep 11 j 06:33	6° $\text{Q}$ 43'14	
opposition	-3474 Dec 14 j 14:19	27° $\text{U}$ 08'38	0°-26'-26	retrograde	-3468 Dec 18 j 19:49	13° $\text{Q}$ 36'13	
min. Earth dist.	-3474 Dec 14 j 03:53	27° $\text{U}$ 10'45	8.28858 AU	opposition	-3467 Feb 25 j 23:48	10° $\text{Q}$ 19'43	2°39'06
direct	-3473 Feb 21 j 04:36	23° $\text{U}$ 39'34		min. Earth dist.	-3467 Feb 26 j 02:18	10° $\text{Q}$ 19'15	9.06935 AU
	-3473 May 24 j 16:55	0° $\text{II}$		direct	-3467 May 08 j 15:05	6° $\text{Q}$ 57'47	
evening set	-3473 Jun 07 j 10:37	1° $\text{II}$ 38'56		evening set	-3467 Aug 20 j 07:29	14° $\text{Q}$ 06'32	
					-3467 Aug 28 j 01:06	15° $\text{Q}$	
conjunction	-3473 Jun 25 j 09:11	3° $\text{II}$ 53'00	0°-4'-38				
minimum elong	-3473 Jun 25 j 09:10	3° $\text{II}$ 52'59	0°04'31	conjunction	-3467 Sep 06 j 00:49	16° $\text{Q}$ 02'53	2°15'56
behind sun begin	-3473 Jun 25 j 02:03	3° $\text{II}$ 50'47		minimum elong	-3467 Sep 06 j 00:47	16° $\text{Q}$ 02'52	2°16'01
behind sun end	-3473 Jun 25 j 16:18	3° $\text{II}$ 55'12		max. Earth dist.	-3467 Sep 05 j 20:00	16° $\text{Q}$ 01'28	11.10798 AU
max. Earth dist.	-3473 Jun 25 j 21:21	3° $\text{II}$ 56'48	10.36021 AU	morning rise	-3467 Sep 22 j 14:08	17° $\text{Q}$ 58'07	
morning rise	-3473 Jul 13 j 03:26	6° $\text{II}$ 05'39		retrograde	-3467 Dec 30 j 06:09	24° $\text{Q}$ 47'55	
asc. node	-3473 Aug 17 j 07:28	10° $\text{II}$ 04'28		opposition	-3466 Mar 09 j 20:07	21° $\text{Q}$ 32'01	2°50'38
retrograde	-3473 Oct 21 j 20:37	13° $\text{II}$ 40'23		min. Earth dist.	-3466 Mar 10 j 00:53	21° $\text{Q}$ 31'08	9.14364 AU
opposition	-3473 Dec 27 j 21:01	10° $\text{II}$ 17'08	0°14'06	direct	-3466 May 20 j 13:59	18° $\text{Q}$ 11'17	
min. Earth dist.	-3473 Dec 27 j 11:48	10° $\text{II}$ 18'58	8.43176 AU	evening set	-3466 Aug 31 j 16:43	25° $\text{Q}$ 14'52	
direct	-3472 Mar 06 j 03:59	6° $\text{II}$ 48'57					
evening set	-3472 Jun 20 j 05:38	14° $\text{II}$ 38'43		conjunction	-3466 Sep 17 j 06:38	27° $\text{Q}$ 09'40	2°22'52
				minimum elong	-3466 Sep 17 j 06:37	27° $\text{Q}$ 09'40	2°22'56
conjunction	-3472 Jul 07 j 23:51	16° $\text{II}$ 49'24	0°27'37	max. Earth dist.	-3466 Sep 16 j 23:25	27° $\text{Q}$ 07'34	11.16926 AU
minimum elong	-3472 Jul 07 j 23:50	16° $\text{II}$ 49'24	0°27'45	morning rise	-3466 Oct 03 j 17:08	29° $\text{Q}$ 03'35	
max. Earth dist.	-3472 Jul 08 j 09:43	16° $\text{II}$ 52'27	10.50608 AU		-3466 Oct 12 j 02:17	0° $\text{R}$	
morning rise	-3472 Jul 25 j 13:08	18° $\text{II}$ 58'33		retrograde	-3465 Jan 10 j 16:23	5° $\text{R}$ 51'55	
retrograde	-3472 Nov 02 j 10:03	26° $\text{II}$ 21'44		opposition	-3465 Mar 21 j 14:54	2° $\text{R}$ 36'20	2°55'42
opposition	-3471 Jan 08 j 19:53	23° $\text{II}$ 00'10	0°52'33	min. Earth dist.	-3465 Mar 21 j 22:29	2° $\text{R}$ 34'56	9.19217 AU
min. Earth dist.	-3471 Jan 08 j 12:12	23° $\text{II}$ 01'41	8.57841 AU		-3465 May 01 j 13:30	30° $\text{R}$ Q	
direct	-3471 Mar 19 j 18:54	19° $\text{II}$ 33'05		direct	-3465 Jun 01 j 09:20	29° $\text{Q}$ 16'37	
evening set	-3471 Jul 03 j 12:23	27° $\text{II}$ 13'13			-3465 Jul 01 j 18:57	0° $\text{R}$	
				evening set	-3465 Sep 11 j 21:10	6° $\text{R}$ 16'14	
conjunction	-3471 Jul 21 j 01:37	29° $\text{II}$ 20'29	0°57'33				
minimum elong	-3471 Jul 21 j 01:35	29° $\text{II}$ 20'28	0°57'41	conjunction	-3465 Sep 28 j 08:27	8° $\text{R}$ 10'04	2°24'25
max. Earth dist.	-3471 Jul 21 j 09:11	29° $\text{II}$ 22'47	10.65143 AU	minimum elong	-3465 Sep 28 j 08:27	8° $\text{R}$ 10'04	2°24'29
	-3471 Jul 26 j 11:28	0° $\text{U}$		max. Earth dist.	-3465 Sep 27 j 22:13	8° $\text{R}$ 07'06	11.20410 AU
morning rise	-3471 Aug 07 j 09:29	1° $\text{U}$ 26'09		morning rise	-3465 Oct 14 j 17:21	10° $\text{R}$ 03'15	
retrograde	-3471 Nov 14 j 16:18	8° $\text{U}$ 39'14		retrograde	-3464 Jan 22 j 00:39	16° $\text{R}$ 51'48	
opposition	-3470 Jan 21 j 11:26	5° $\text{U}$ 19'14	1°27'16	opposition	-3464 Apr 01 j 09:03	13° $\text{R}$ 36'11	2°54'18
min. Earth dist.	-3470 Jan 21 j 06:13	5° $\text{U}$ 20'14	8.72132 AU	min. Earth dist.	-3464 Apr 01 j 19:00	13° $\text{R}$ 34'22	9.21340 AU
direct	-3470 Apr 01 j 23:39	1° $\text{U}$ 53'22		direct	-3464 Jun 12 j 00:46	10° $\text{R}$ 17'17	
evening set	-3470 Jul 16 j 07:49	9° $\text{U}$ 24'21		evening set	-3464 Sep 21 j 22:38	17° $\text{R}$ 14'17	
conjunction	-3470 Aug 02 j 15:39	11° $\text{U}$ 28'20	1°24'03	conjunction	-3464 Oct 08 j 08:23	19° $\text{R}$ 07'42	2°20'40
minimum elong	-3470 Aug 02 j 15:36	11° $\text{U}$ 28'19	1°24'10	minimum elong	-3464 Oct 08 j 08:25	19° $\text{R}$ 07'42	2°20'42
max. Earth dist.	-3470 Aug 02 j 20:10	11° $\text{U}$ 29'41	10.78951 AU	max. Earth dist.	-3464 Oct 07 j 20:08	19° $\text{R}$ 04'09	11.21140 AU
morning rise	-3470 Aug 19 j 18:05	13° $\text{U}$ 30'45		morning rise	-3464 Oct 24 j 16:41	21° $\text{R}$ 00'44	
retrograde	-3470 Nov 26 j 15:06	20° $\text{U}$ 35'19		retrograde	-3463 Feb 01 j 12:23	27° $\text{R}$ 51'10	
opposition	-3469 Feb 02 j 20:30	17° $\text{U}$ 16'45	1°57'03	opposition	-3463 Apr 13 j 03:28	24° $\text{R}$ 35'09	2°46'36
min. Earth dist.	-3469 Feb 02 j 18:31	17° $\text{U}$ 17'08	8.85419 AU	min. Earth dist.	-3463 Apr 13 j 14:27	24° $\text{R}$ 33'09	9.20652 AU
direct	-3469 Apr 14 j 19:05	13° $\text{U}$ 52'12		direct	-3463 Jun 23 j 15:59	21° $\text{R}$ 16'51	
evening set	-3469 Jul 28 j 16:42	21° $\text{U}$ 14'47		evening set	-3463 Oct 02 j 22:44	28° $\text{R}$ 12'33	
					-3463 Oct 18 j 10:53	0° $\text{U}$	
conjunction	-3469 Aug 14 j 19:05	23° $\text{U}$ 15'46	1°46'17				
minimum elong	-3469 Aug 14 j 19:02	23° $\text{U}$ 15'45	1°46'24	conjunction	-3463 Oct 19 j 08:06	0° $\text{U}$ 06'11	2°11'45
max. Earth dist.	-3469 Aug 14 j 19:36	23° $\text{U}$ 15'55	10.91465 AU	minimum elong	-3463 Oct 19 j 08:08	0° $\text{U}$ 06'11	2°11'45
morning rise	-3469 Aug 31 j 16:34	25° $\text{U}$ 15'19		max. Earth dist.	-3463 Oct 18 j 19:08	0° $\text{U}$ 02'24	11.19064 AU
	-3469 Oct 17 j 06:41	0° $\text{Q}$		morning rise	-3463 Nov 04 j 16:37	1° $\text{U}$ 59'39	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 37

Attention, astronomical year style is used: The year -3462 in astronomical counting style is the year 3463 BCE in historical counting style.

retrograde	-3462 Feb 13 j 04:29	8°♄53'32		morning rise	-3456 Jan 13 j 06:22	11°♄46'45	
opposition	-3462 Apr 24 j 23:41	5°♄36'51	2°32'46	retrograde	-3456 Apr 27 j 23:03	19°♄33'41	
min. Earth dist.	-3462 Apr 25 j 11:33	5°♄34'41	9.17137 AU	opposition	-3456 Jul 07 j 03:53	16°♄07'59	0°-31'-37
direct	-3462 Jul 05 j 04:51	2°♄18'55		min. Earth dist.	-3456 Jul 07 j 12:49	16°♄06'15	8.48603 AU
evening set	-3462 Oct 13 j 23:22	9°♄14'43		direct	-3456 Sep 13 j 02:28	12°♄46'41	
				evening set	-3456 Dec 22 j 01:03	20°♄16'06	
conjunction	-3462 Oct 30 j 09:05	11°♄09'04	1°57'53				
minimum elong	-3462 Oct 30 j 09:08	11°♄09'05	1°57'51	conjunction	-3455 Jan 08 j 02:55	22°♄24'28	0°-40'-50
max. Earth dist.	-3462 Oct 29 j 18:47	11°♄04'53	11.14201 AU	minimum elong	-3455 Jan 08 j 02:53	22°♄24'27	0°40'59
morning rise	-3462 Nov 15 j 18:53	13°♄03'33		max. Earth dist.	-3455 Jan 07 j 16:53	22°♄21'18	10.41237 AU
retrograde	-3461 Feb 24 j 23:37	20°♄02'33		morning rise	-3455 Jan 25 j 09:50	24°♄34'26	
opposition	-3461 May 06 j 22:55	16°♄44'53	2°13'07		-3455 Mar 16 j 14:18	0°♄	
min. Earth dist.	-3461 May 07 j 12:06	16°♄42'28	9.10860 AU	retrograde	-3455 May 11 j 21:54	2°♄33'38	
direct	-3461 Jul 16 j 18:02	13°♄27'01			-3455 Jul 09 j 04:03	30°♄	
evening set	-3461 Oct 25 j 02:29	20°♄24'30		opposition	-3455 Jul 20 j 16:55	29°♄06'09	-1°-10'-4
				min. Earth dist.	-3455 Jul 20 j 23:31	29°♄04'51	8.33800 AU
conjunction	-3461 Nov 10 j 13:21	22°♄20'08	1°39'23	direct	-3455 Sep 26 j 02:04	25°♄43'32	
minimum elong	-3461 Nov 10 j 13:24	22°♄20'08	1°39'21		-3455 Dec 06 j 14:54	0°♄	
max. Earth dist.	-3461 Nov 09 j 21:14	22°♄15'22	11.06656 AU	evening set	-3454 Jan 04 j 09:16	3°♄23'14	
morning rise	-3461 Nov 27 j 01:28	24°♄16'11					
	-3460 Jan 26 j 11:36	0°♄		conjunction	-3454 Jan 21 j 15:01	5°♄34'46	-1°-10'-55
retrograde	-3460 Mar 08 j 01:37	1°♄21'57		minimum elong	-3454 Jan 21 j 14:58	5°♄34'45	1°11'05
	-3460 Apr 19 j 18:41	30°♄		max. Earth dist.	-3454 Jan 21 j 08:53	5°♄32'48	10.26718 AU
opposition	-3460 May 18 j 02:05	28°♄03'02	1°48'03	morning rise	-3454 Feb 08 j 01:57	7°♄47'59	
min. Earth dist.	-3460 May 18 j 16:22	28°♄00'24	9.01978 AU	retrograde	-3454 May 26 j 07:16	15°♄59'07	
direct	-3460 Jul 27 j 10:22	24°♄44'59		opposition	-3454 Aug 03 j 13:51	12°♄30'02	-1°-46'-6
	-3460 Oct 19 j 19:58	0°♄		min. Earth dist.	-3454 Aug 03 j 17:12	12°♄29'21	8.19854 AU
evening set	-3460 Nov 04 j 09:48	1°♄45'46		direct	-3454 Oct 09 j 09:48	9°♄06'01	
				evening set	-3453 Jan 18 j 06:41	16°♄56'29	
conjunction	-3460 Nov 20 j 22:47	3°♄43'12	1°16'42				
minimum elong	-3460 Nov 20 j 22:49	3°♄43'13	1°16'38	conjunction	-3453 Feb 04 j 16:21	19°♄11'04	-1°-37'-58
max. Earth dist.	-3460 Nov 20 j 06:40	3°♄38'24	10.96638 AU	minimum elong	-3453 Feb 04 j 16:18	19°♄11'03	1°38'07
morning rise	-3460 Dec 07 j 13:52	5°♄41'21		max. Earth dist.	-3453 Feb 04 j 14:41	19°♄10'32	10.13417 AU
retrograde	-3459 Mar 20 j 10:15	12°♄55'32		morning rise	-3453 Feb 22 j 07:06	21°♄27'22	
opposition	-3459 May 30 j 10:25	9°♄35'08	1°18'06	retrograde	-3453 Jun 10 j 01:07	29°♄49'16	
min. Earth dist.	-3459 May 31 j 00:11	9°♄32'34	8.90793 AU	opposition	-3453 Aug 17 j 17:56	26°♄18'49	-2°-17'-15
direct	-3459 Aug 08 j 05:50	6°♄16'39		min. Earth dist.	-3453 Aug 17 j 17:29	26°♄18'54	8.07534 AU
evening set	-3459 Nov 15 j 23:29	13°♄22'21		direct	-3453 Oct 23 j 02:46	22°♄53'24	
	-3459 Nov 29 j 14:06	15°♄			-3452 Jan 25 j 14:02	0°♄	
conjunction	-3459 Dec 02 j 15:12	15°♄22'04	0°50'25	evening set	-3452 Feb 01 j 17:16	0°♄54'28	
minimum elong	-3459 Dec 02 j 15:14	15°♄22'04	0°50'20				
max. Earth dist.	-3459 Dec 02 j 00:16	15°♄17'33	10.84525 AU	conjunction	-3452 Feb 19 j 06:46	3°♄11'52	-2°00'-1
morning rise	-3459 Dec 19 j 09:40	17°♄22'43		minimum elong	-3452 Feb 19 j 06:42	3°♄11'51	2°00'08
retrograde	-3458 Apr 02 j 05:16	24°♄46'45		max. Earth dist.	-3452 Feb 19 j 09:12	3°♄12'40	10.02113 AU
opposition	-3458 Jun 12 j 00:55	21°♄24'41	0°44'05	morning rise	-3452 Mar 08 j 01:01	5°♄30'52	
min. Earth dist.	-3458 Jun 12 j 13:08	21°♄22'22	8.77773 AU	retrograde	-3452 Jun 24 j 01:12	14°♄01'18	
direct	-3458 Aug 20 j 07:00	18°♄05'31		opposition	-3452 Aug 31 j 03:56	10°♄29'53	-2°-40'-59
evening set	-3458 Nov 27 j 21:28	25°♄17'40		min. Earth dist.	-3452 Aug 31 j 00:05	10°♄30'41	7.97583 AU
				direct	-3452 Nov 05 j 04:55	7°♄03'06	
conjunction	-3458 Dec 14 j 16:17	27°♄20'01	0°21'20		-3451 Feb 13 j 20:51	15°♄	
minimum elong	-3458 Dec 14 j 16:18	27°♄20'02	0°21'14	evening set	-3451 Feb 15 j 15:27	15°♄13'47	
max. Earth dist.	-3458 Dec 14 j 02:26	27°♄15'48	10.70843 AU				
morning rise	-3458 Dec 31 j 14:41	29°♄23'35		conjunction	-3451 Mar 05 j 08:39	17°♄33'35	-2°-15'-9
	-3457 Jan 05 j 17:14	0°♄		minimum elong	-3451 Mar 05 j 08:37	17°♄33'34	2°15'16
retrograde	-3457 Apr 15 j 09:51	6°♄58'39		max. Earth dist.	-3451 Mar 05 j 15:00	17°♄35'41	9.93531 AU
opposition	-3457 Jun 24 j 22:35	3°♄34'46	0°07'02	morning rise	-3451 Mar 23 j 06:06	19°♄54'47	
min. Earth dist.	-3457 Jun 25 j 09:07	3°♄32'45	8.63497 AU	retrograde	-3451 Jul 09 j 04:43	28°♄30'37	
direct	-3457 Sep 01 j 12:32	0°♄14'39		opposition	-3451 Sep 14 j 18:27	24°♄58'40	-2°-55'-4
desc. node	-3457 Sep 02 j 10:05	0°♄14'42		min. Earth dist.	-3451 Sep 14 j 11:41	25°♄00'04	7.90653 AU
evening set	-3457 Dec 10 j 05:27	7°♄34'46		direct	-3451 Nov 19 j 14:46	21°♄30'38	
				evening set	-3450 Mar 02 j 22:40	29°♄48'59	
conjunction	-3457 Dec 27 j 03:40	9°♄40'02	0°-9'-35		-3450 Mar 04 j 08:25	0°♄	
minimum elong	-3457 Dec 27 j 03:39	9°♄40'02	0°09'43	conjunction	-3450 Mar 20 j 19:24	2°♄10'37	-2°-21'-57
behind sun begin	-3457 Dec 26 j 21:49	9°♄38'14		minimum elong	-3450 Mar 20 j 19:24	2°♄10'37	2°22'02
behind sun end	-3457 Dec 27 j 09:30	9°♄41'49		max. Earth dist.	-3450 Mar 21 j 05:23	2°♄13'56	9.88268 AU
max. Earth dist.	-3457 Dec 26 j 15:05	9°♄36'08	10.56193 AU	morning rise	-3450 Apr 07 j 19:38	4°♄33'21	

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 38

Attention, astronomical year style is used: The year -3450 in astronomical counting style is the year 3451 BCE in historical counting style.

retrograde	-3450 Jul 24 j 08:56	13° $\text{X}$ 10'43		asc. node	-3443 Jan 25 j 01:38	2° $\text{II}$ 17'32	
opposition	-3450 Sep 29 j 11:10	9° $\text{X}$ 38'44	-2°-57'-57	direct	-3443 Feb 28 j 08:09	1° $\text{II}$ 18'08	
min. Earth dist.	-3450 Sep 29 j 02:09	9° $\text{X}$ 40'37	7.87231 AU	evening set	-3443 Jun 14 j 14:12	9° $\text{II}$ 12'30	
direct	-3450 Dec 04 j 07:28	6° $\text{X}$ 09'40					
evening set	-3449 Mar 18 j 12:00	14° $\text{X}$ 33'01		conjunction	-3443 Jul 02 j 10:32	11° $\text{II}$ 24'46	0°13'36
				minimum elong	-3443 Jul 02 j 10:31	11° $\text{II}$ 24'45	0°13'43
conjunction	-3449 Apr 05 j 11:57	16° $\text{X}$ 55'46	-2°-19'-34	behind sun begin	-3443 Jul 02 j 06:45	11° $\text{II}$ 23'36	
minimum elong	-3449 Apr 05 j 11:59	16° $\text{X}$ 55'46	2°19'37	behind sun end	-3443 Jul 02 j 14:18	11° $\text{II}$ 25'55	
max. Earth dist.	-3449 Apr 06 j 00:50	17° $\text{X}$ 00'03	9.86710 AU	max. Earth dist.	-3443 Jul 02 j 23:23	11° $\text{II}$ 28'45	10.44454 AU
morning rise	-3449 Apr 23 j 14:21	19° $\text{X}$ 19'13		morning rise	-3443 Jul 20 j 02:02	13° $\text{II}$ 35'30	
retrograde	-3449 Aug 08 j 10:16	27° $\text{X}$ 53'54		retrograde	-3443 Oct 28 j 09:31	21° $\text{II}$ 03'56	
opposition	-3449 Oct 14 j 03:32	24° $\text{X}$ 22'24	-2°-49'-8	opposition	-3442 Jan 03 j 13:32	17° $\text{II}$ 42'05	0°35'57
min. Earth dist.	-3449 Oct 13 j 16:53	24° $\text{X}$ 24'39	7.87569 AU	min. Earth dist.	-3442 Jan 03 j 05:03	17° $\text{II}$ 43'45	8.51877 AU
direct	-3449 Dec 19 j 04:41	20° $\text{X}$ 52'36		direct	-3442 Mar 14 j 03:34	14° $\text{II}$ 14'57	
evening set	-3448 Apr 02 j 03:24	29° $\text{X}$ 17'48		evening set	-3442 Jun 28 j 03:10	21° $\text{II}$ 59'33	
	-3448 Apr 07 j 12:44	0° $\text{Y}$					
				conjunction	-3442 Jul 15 j 18:35	24° $\text{II}$ 08'19	0°44'42
conjunction	-3448 Apr 20 j 05:55	1° $\text{Y}$ 40'48	-2°-8'-5	minimum elong	-3442 Jul 15 j 18:33	24° $\text{II}$ 08'18	0°44'50
minimum elong	-3448 Apr 20 j 05:59	1° $\text{Y}$ 40'49	2°08'06	max. Earth dist.	-3442 Jul 16 j 03:31	24° $\text{II}$ 11'03	10.59446 AU
max. Earth dist.	-3448 Apr 20 j 21:06	1° $\text{Y}$ 45'50	9.88981 AU	morning rise	-3442 Aug 02 j 04:57	26° $\text{II}$ 15'31	
morning rise	-3448 May 08 j 09:33	4° $\text{Y}$ 04'05			-3442 Sep 04 j 23:20	0° $\text{S}$	
retrograde	-3448 Aug 22 j 05:47	12° $\text{Y}$ 32'12		retrograde	-3442 Nov 09 j 18:07	3° $\text{S}$ 32'58	
opposition	-3448 Oct 27 j 17:21	9° $\text{Y}$ 01'40	-2°-29'-17	opposition	-3441 Jan 16 j 08:40	0° $\text{S}$ 12'48	1°12'30
min. Earth dist.	-3448 Oct 27 j 05:13	9° $\text{Y}$ 04'12	7.91659 AU	min. Earth dist.	-3441 Jan 16 j 02:38	0° $\text{S}$ 13'58	8.66711 AU
direct	-3447 Jan 02 j 03:50	5° $\text{Y}$ 31'29			-3441 Jan 19 j 02:30	30° $\text{R}$ $\text{II}$	
evening set	-3447 Apr 17 j 16:40	13° $\text{Y}$ 55'13		direct	-3441 Mar 27 j 14:25	26° $\text{II}$ 46'52	
					-3441 May 31 j 10:02	0° $\text{S}$	
conjunction	-3447 May 05 j 20:45	16° $\text{Y}$ 17'34	-1°-48'-26	evening set	-3441 Jul 11 j 04:04	4° $\text{S}$ 21'55	
minimum elong	-3447 May 05 j 20:49	16° $\text{Y}$ 17'36	1°48'26				
max. Earth dist.	-3447 May 06 j 13:37	16° $\text{Y}$ 23'07	9.94929 AU	conjunction	-3441 Jul 28 j 14:09	6° $\text{S}$ 27'16	1°12'51
morning rise	-3447 May 24 j 00:30	18° $\text{Y}$ 39'45		minimum elong	-3441 Jul 28 j 14:06	6° $\text{S}$ 27'15	1°12'59
retrograde	-3447 Sep 05 j 16:51	26° $\text{Y}$ 58'09		max. Earth dist.	-3441 Jul 28 j 19:13	6° $\text{S}$ 28'48	10.73861 AU
opposition	-3447 Nov 11 j 02:21	23° $\text{Y}$ 28'58	-2°00'-10	morning rise	-3441 Aug 14 j 19:07	8° $\text{S}$ 31'03	
min. Earth dist.	-3447 Nov 10 j 13:08	23° $\text{Y}$ 31'43	7.99227 AU	retrograde	-3441 Nov 21 j 19:57	15° $\text{S}$ 39'11	
direct	-3446 Jan 17 j 01:55	19° $\text{Y}$ 58'49		opposition	-3440 Jan 28 j 20:48	12° $\text{S}$ 20'29	1°44'34
evening set	-3446 May 03 j 00:35	28° $\text{Y}$ 18'05		min. Earth dist.	-3440 Jan 28 j 17:00	12° $\text{S}$ 21'12	8.80616 AU
	-3446 May 16 j 05:10	0° $\text{Z}$		direct	-3440 Apr 08 j 15:11	8° $\text{S}$ 55'50	
				evening set	-3440 Jul 22 j 17:47	16° $\text{S}$ 22'02	
conjunction	-3446 May 21 j 04:57	0° $\text{Z}$ 38'55	-1°-22'-19				
minimum elong	-3446 May 21 j 05:01	0° $\text{Z}$ 38'56	1°22'18	conjunction	-3440 Aug 08 j 22:35	18° $\text{S}$ 24'16	1°37'03
max. Earth dist.	-3446 May 21 j 22:27	0° $\text{Z}$ 44'37	10.04140 AU	minimum elong	-3440 Aug 08 j 22:32	18° $\text{S}$ 24'15	1°37'11
morning rise	-3446 Jun 08 j 07:29	2° $\text{Z}$ 59'07		max. Earth dist.	-3440 Aug 09 j 00:39	18° $\text{S}$ 24'52	10.86996 AU
retrograde	-3446 Sep 19 j 17:50	11° $\text{Z}$ 05'38		morning rise	-3440 Aug 25 j 22:13	20° $\text{S}$ 24'59	
opposition	-3446 Nov 25 j 04:44	7° $\text{Z}$ 38'08	-1°-24'-20	retrograde	-3440 Dec 02 j 15:36	27° $\text{S}$ 25'39	
min. Earth dist.	-3446 Nov 24 j 15:14	7° $\text{Z}$ 40'56	8.09763 AU	opposition	-3439 Feb 09 j 03:05	24° $\text{S}$ 08'11	2°11'15
direct	-3445 Jan 31 j 18:54	4° $\text{Z}$ 08'21		min. Earth dist.	-3439 Feb 09 j 02:15	24° $\text{S}$ 08'20	8.92970 AU
evening set	-3445 May 18 j 00:08	12° $\text{Z}$ 20'46		direct	-3439 Apr 21 j 07:24	20° $\text{S}$ 44'48	
				evening set	-3439 Aug 03 j 21:33	28° $\text{S}$ 03'09	
conjunction	-3445 Jun 05 j 03:16	14° $\text{Z}$ 39'18	0°-51'-50				
minimum elong	-3445 Jun 05 j 03:19	14° $\text{Z}$ 39'18	0°51'46	conjunction	-3439 Aug 20 j 21:19	0° $\text{Z}$ 02'39	1°56'38
max. Earth dist.	-3445 Jun 05 j 20:24	14° $\text{Z}$ 44'47	10.15982 AU	minimum elong	-3439 Aug 20 j 21:16	0° $\text{Z}$ 02'38	1°56'44
	-3445 Jun 07 j 19:51	15° $\text{Z}$			-3439 Aug 20 j 12:20	0° $\text{Z}$	
morning rise	-3445 Jun 23 j 03:12	16° $\text{Z}$ 56'46		max. Earth dist.	-3439 Aug 20 j 20:07	0° $\text{Z}$ 02'18	10.98339 AU
retrograde	-3445 Oct 03 j 09:51	24° $\text{Z}$ 50'25		morning rise	-3439 Sep 06 j 16:09	2° $\text{Z}$ 00'46	
opposition	-3445 Dec 08 j 23:46	21° $\text{Z}$ 24'46	0°-44'-36	retrograde	-3439 Dec 14 j 07:11	8° $\text{Z}$ 55'48	
min. Earth dist.	-3445 Dec 08 j 10:57	21° $\text{Z}$ 27'23	8.22577 AU	opposition	-3438 Feb 21 j 04:44	5° $\text{Z}$ 39'17	2°31'56
direct	-3444 Feb 15 j 05:19	17° $\text{Z}$ 55'39		min. Earth dist.	-3438 Feb 21 j 07:22	5° $\text{Z}$ 38'47	9.03345 AU
evening set	-3444 May 31 j 13:02	25° $\text{Z}$ 59'31		direct	-3438 May 03 j 15:49	2° $\text{Z}$ 17'05	
				evening set	-3438 Aug 15 j 16:57	9° $\text{Z}$ 28'41	
conjunction	-3444 Jun 18 j 13:25	28° $\text{Z}$ 15'07	0°-19'-12				
minimum elong	-3444 Jun 18 j 13:26	28° $\text{Z}$ 15'07	0°19'07	conjunction	-3438 Sep 01 j 12:01	11° $\text{Z}$ 25'54	2°11'10
max. Earth dist.	-3444 Jun 19 j 05:11	28° $\text{Z}$ 20'05	10.29691 AU	minimum elong	-3438 Sep 01 j 11:58	11° $\text{Z}$ 25'53	2°11'16
	-3444 Jul 02 j 10:53	0° $\text{II}$		max. Earth dist.	-3438 Sep 01 j 06:53	11° $\text{Z}$ 24'24	11.07544 AU
morning rise	-3444 Jul 06 j 09:32	0° $\text{II}$ 29'21		morning rise	-3438 Sep 18 j 02:52	13° $\text{Z}$ 21'55	
retrograde	-3444 Oct 15 j 15:32	8° $\text{II}$ 10'04			-3438 Oct 02 j 18:18	15° $\text{Z}$	
opposition	-3444 Dec 21 j 10:47	4° $\text{II}$ 46'20	0°-3'-42	retrograde	-3438 Dec 25 j 17:14	20° $\text{Z}$ 13'04	
min. Earth dist.	-3444 Dec 20 j 23:51	4° $\text{II}$ 48'31	8.36889 AU	opposition	-3437 Mar 05 j 02:49	16° $\text{Z}$ 57'09	2°46'19

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 39

Attention, astronomical year style is used: The year -3437 in astronomical counting style is the year 3438 BCE in historical counting style.

min. Earth dist.	-3437 Mar 05 j 08:29	16°♌56'06	9.11437 AU	opposition	-3431 May 13 j 05:37	23°♎24'33	1°59'35
	-3437 Apr 02 j 07:34	15°♌♌		min. Earth dist.	-3431 May 13 j 18:38	23°♎22'09	9.04280 AU
direct	-3437 May 15 j 18:49	13°♌36'01		direct	-3431 Jul 22 j 20:25	20°♎06'02	
	-3437 Jun 27 j 09:47	15°♌		evening set	-3431 Oct 30 j 22:17	27°♎05'42	
evening set	-3437 Aug 27 j 05:11	20°♌41'59					
conjunction	-3437 Sep 12 j 20:24	22°♌37'26	2°20'26	conjunction	-3431 Nov 16 j 10:27	29°♎02'28	1°27'00
minimum elong	-3437 Sep 12 j 20:23	22°♌37'26	2°20'31	minimum elong	-3431 Nov 16 j 10:29	29°♎02'29	1°26'57
max. Earth dist.	-3437 Sep 12 j 12:02	22°♌35'00	11.14360 AU	max. Earth dist.	-3431 Nov 15 j 19:16	28°♎57'58	10.99474 AU
morning rise	-3437 Sep 29 j 08:12	24°♌31'55			-3431 Nov 24 j 12:21	0°♎	
	-3437 Nov 26 j 09:18	0°♐		morning rise	-3431 Dec 03 j 00:06	0°♎59'49	
retrograde	-3436 Jan 06 j 03:19	1°♐20'55		retrograde	-3430 Mar 15 j 11:30	8°♎10'35	
	-3436 Feb 17 j 02:51	30°♐♌		opposition	-3430 May 25 j 11:42	4°♎50'18	1°31'39
opposition	-3436 Mar 15 j 22:29	28°♌05'14	2°54'14	min. Earth dist.	-3430 May 26 j 00:41	4°♎47'53	8.94228 AU
min. Earth dist.	-3436 Mar 16 j 05:55	28°♌03'53	9.17011 AU	direct	-3430 Aug 03 j 12:34	1°♎31'31	
direct	-3436 May 26 j 17:56	24°♌45'00		evening set	-3430 Nov 11 j 08:58	8°♎35'21	
	-3436 Aug 21 j 09:20	0°♐					
evening set	-3436 Sep 06 j 11:38	1°♐46'29		conjunction	-3430 Nov 27 j 23:22	10°♎34'09	1°02'11
conjunction	-3436 Sep 23 j 00:06	3°♐40'46	2°24'21	minimum elong	-3430 Nov 27 j 23:24	10°♎34'10	1°02'07
minimum elong	-3436 Sep 23 j 00:06	3°♐40'46	2°24'24	max. Earth dist.	-3430 Nov 27 j 07:58	10°♎29'32	10.88492 AU
max. Earth dist.	-3436 Sep 22 j 14:11	3°♐37'53	11.18583 AU	morning rise	-3430 Dec 14 j 16:25	12°♎33'49	
morning rise	-3436 Oct 09 j 09:40	5°♐34'16			-3429 Jan 05 j 07:03	15°♎	
retrograde	-3435 Jan 16 j 13:03	12°♐22'48		retrograde	-3429 Mar 28 j 01:40	19°♎53'46	
opposition	-3435 Mar 27 j 16:51	9°♐07'02	2°55'40	opposition	-3429 Jun 06 j 23:39	16°♎32'00	0°59'16
min. Earth dist.	-3435 Mar 28 j 01:56	9°♐05'22	9.19894 AU	min. Earth dist.	-3429 Jun 07 j 12:18	16°♎29'37	8.82290 AU
direct	-3435 Jun 07 j 10:46	5°♐47'32		direct	-3429 Jun 28 j 05:02	15°♎♎	
evening set	-3435 Sep 17 j 14:24	12°♐45'49			-3429 Aug 15 j 11:25	13°♎12'44	
				evening set	-3429 Sep 30 j 21:45	15°♎	
					-3429 Nov 23 j 03:06	20°♎22'18	
conjunction	-3435 Oct 04 j 00:56	14°♐39'28	2°22'54	conjunction	-3429 Dec 09 j 20:27	22°♎23'34	0°34'11
minimum elong	-3435 Oct 04 j 00:57	14°♐39'29	2°22'57	minimum elong	-3429 Dec 09 j 20:28	22°♎23'34	0°34'06
max. Earth dist.	-3435 Oct 03 j 13:16	14°♐36'05	11.20084 AU	max. Earth dist.	-3429 Dec 09 j 06:14	22°♎19'15	10.75826 AU
morning rise	-3435 Oct 20 j 09:18	16°♐32'36		morning rise	-3429 Dec 26 j 17:17	24°♎25'57	
retrograde	-3434 Jan 27 j 23:46	23°♐22'17			-3428 Feb 19 j 14:59	0°♏	
opposition	-3434 Apr 08 j 11:07	20°♐06'08	2°50'43	retrograde	-3428 Apr 09 j 00:55	1°♏56'22	
min. Earth dist.	-3434 Apr 08 j 22:26	20°♐04'04	9.20011 AU		-3428 May 30 j 00:06	30°♐♎	
direct	-3434 Jun 19 j 01:42	16°♐47'10		opposition	-3428 Jun 18 j 18:04	28°♎33'00	0°23'20
evening set	-3434 Sep 28 j 15:04	23°♐43'38		min. Earth dist.	-3428 Jun 19 j 05:24	28°♎30'50	8.68922 AU
max. Earth dist.	-3434 Oct 14 j 10:21	25°♐33'06	11.18840 AU	direct	-3428 Aug 26 j 15:04	25°♎13'02	
					-3428 Nov 12 j 15:48	0°♏	
conjunction	-3434 Oct 15 j 00:30	25°♐37'14	2°16'13	evening set	-3428 Dec 04 j 06:29	2°♏29'53	
minimum elong	-3434 Oct 15 j 00:32	25°♐37'14	2°16'14				
morning rise	-3434 Oct 31 j 08:54	27°♐30'34		conjunction	-3428 Dec 21 j 03:18	4°♏33'56	0°03'59
	-3434 Nov 23 j 07:19	0°♑		minimum elong	-3428 Dec 21 j 03:17	4°♏33'56	0°03'53
retrograde	-3433 Feb 08 j 12:26	4°♑23'05		behind sun begin	-3428 Dec 20 j 20:18	4°♏31'48	
opposition	-3433 Apr 20 j 06:41	1°♑06'15	2°39'32	behind sun end	-3428 Dec 21 j 10:16	4°♏36'03	
min. Earth dist.	-3433 Apr 20 j 19:44	1°♑03'52	9.17380 AU	max. Earth dist.	-3428 Dec 20 j 15:41	4°♏30'22	10.61967 AU
	-3433 May 05 j 16:15	30°♐♐		morning rise	-3427 Jan 07 j 04:05	6°♏39'19	
direct	-3433 Jun 30 j 14:59	27°♐47'37		desc. node	-3427 Feb 06 j 18:57	10°♏07'15	
	-3433 Aug 23 j 04:16	0°♑		retrograde	-3427 Apr 22 j 10:10	14°♏21'16	
evening set	-3433 Oct 09 j 15:12	4°♑43'39		opposition	-3427 Jul 01 j 19:58	10°♏56'14	0°-14'-50
max. Earth dist.	-3433 Oct 25 j 09:31	6°♑33'20	11.14902 AU	min. Earth dist.	-3427 Jul 02 j 04:39	10°♏54'33	8.54675 AU
				direct	-3427 Sep 08 j 02:02	7°♏35'26	
conjunction	-3433 Oct 26 j 00:39	6°♑37'46	2°04'29	evening set	-3427 Dec 16 j 20:52	15°♏00'55	
minimum elong	-3433 Oct 26 j 00:41	6°♑37'46	2°04'27				
morning rise	-3433 Nov 11 j 10:00	8°♑31'54		conjunction	-3426 Jan 02 j 21:13	17°♏07'58	0°-27'-22
retrograde	-3432 Feb 20 j 05:17	15°♑28'56		minimum elong	-3426 Jan 02 j 21:12	17°♏07'58	0°27'30
opposition	-3432 May 01 j 04:30	12°♑11'08	2°22'23	max. Earth dist.	-3426 Jan 02 j 12:14	17°♏05'09	10.47517 AU
min. Earth dist.	-3432 May 01 j 17:53	12°♑08'40	9.12083 AU	morning rise	-3426 Jan 20 j 02:07	19°♏16'32	
direct	-3432 Jul 11 j 05:24	8°♑52'38		retrograde	-3426 May 06 j 06:37	27°♏10'37	
evening set	-3432 Oct 19 j 16:58	15°♑49'44		opposition	-3426 Jul 15 j 05:51	23°♏43'58	0°-53'-37
				min. Earth dist.	-3426 Jul 15 j 11:39	23°♏42'50	8.40209 AU
conjunction	-3432 Nov 05 j 03:27	17°♑44'55	1°47'57	direct	-3426 Sep 20 j 20:49	20°♏22'09	
minimum elong	-3432 Nov 05 j 03:30	17°♑44'56	1°47'54	evening set	-3426 Dec 29 j 23:44	27°♏57'24	
max. Earth dist.	-3432 Nov 04 j 12:33	17°♑40'32	11.08379 AU		-3425 Jan 15 j 03:58	0°♑	
morning rise	-3432 Nov 21 j 14:31	19°♑40'23					
retrograde	-3431 Mar 03 j 05:39	26°♑43'30		conjunction	-3425 Jan 16 j 03:44	0°♑07'34	0°-58'-11

## Planetary Phenomena of Saturn from -3900 through -3400 (UT), AstroDienst AG 7-Dez-2017 14:38, page 40

Attention, astronomical year style is used: The year -3425 in astronomical counting style is the year 3426 BCE in historical counting style.

minimum elong	-3425 Jan 16 j 03:42	0°☾07'33	0°58'20	retrograde	-3419 Aug 16 j 08:06	6°♊30'29	
max. Earth dist.	-3425 Jan 15 j 21:21	0°☾05'32	10.33185 AU	opposition	-3419 Oct 21 j 21:15	2°♊59'57	-2°-38'-50
morning rise	-3425 Feb 02 j 12:49	2°☾19'22		min. Earth dist.	-3419 Oct 21 j 09:32	3°♊02'25	7.90499 AU
retrograde	-3425 May 20 j 13:18	10°☾25'31			-3419 Dec 04 j 05:18	30°♊	
opposition	-3425 Jul 28 j 23:40	6°☾57'23	-1°-30'-58	direct	-3419 Dec 27 j 02:36	29°♊30'23	
min. Earth dist.	-3425 Jul 29 j 02:47	6°☾56'46	8.26264 AU		-3418 Jan 19 j 00:00	0°♊	
direct	-3425 Oct 03 j 23:16	3°☾34'22		evening set	-3418 Apr 11 j 10:20	7°♊54'50	
evening set	-3424 Jan 12 j 15:47	11°☾20'08					
conjunction	-3424 Jan 29 j 23:33	13°☾33'21	-1°-26'-47	conjunction	-3418 Apr 29 j 13:55	10°♊17'30	-1°-57'-38
minimum elong	-3424 Jan 29 j 23:30	13°☾33'20	1°26'56	minimum elong	-3418 Apr 29 j 13:59	10°♊17'31	1°57'38
max. Earth dist.	-3424 Jan 29 j 20:11	13°☾32'15	10.19729 AU	max. Earth dist.	-3418 Apr 30 j 06:12	10°♊22'52	9.92770 AU
morning rise	-3424 Feb 16 j 12:41	15°☾48'17		morning rise	-3418 May 17 j 17:35	12°♊40'10	
retrograde	-3424 Jun 03 j 03:34	24°☾05'36		retrograde	-3418 Aug 30 j 23:45	21°♊03'02	
opposition	-3424 Aug 11 j 01:03	20°☾36'11	-2°-4'-30	opposition	-3418 Nov 05 j 08:44	17°♊33'33	-2°-13'-28
min. Earth dist.	-3424 Aug 11 j 01:38	20°☾36'04	8.13599 AU	min. Earth dist.	-3418 Nov 04 j 20:29	17°♊36'06	7.96182 AU
direct	-3424 Oct 16 j 12:59	17°☾11'53		direct	-3417 Jan 11 j 01:05	14°♊03'39	
evening set	-3423 Jan 25 j 20:57	25°☾08'16		evening set	-3417 Apr 26 j 21:20	22°♊25'04	
conjunction	-3423 Feb 12 j 08:30	27°☾24'20	-1°-51'-11	conjunction	-3417 May 15 j 01:43	24°♊46'39	-1°-34'-5
minimum elong	-3423 Feb 12 j 08:27	27°☾24'19	1°51'20	minimum elong	-3417 May 15 j 01:47	24°♊46'40	1°34'03
max. Earth dist.	-3423 Feb 12 j 09:07	27°☾24'32	10.07907 AU	max. Earth dist.	-3417 May 15 j 18:17	24°♊52'03	10.00199 AU
morning rise	-3423 Mar 02 j 01:18	29°☾42'05		morning rise	-3417 Jun 02 j 04:51	27°♊07'45	
retrograde	-3423 Mar 04 j 09:30	0°♊			-3417 Jun 25 j 15:35	0°♊	
opposition	-3423 Jun 18 j 00:23	8°♊08'48		retrograde	-3417 Sep 14 j 05:33	5°♊19'38	
min. Earth dist.	-3423 Aug 25 j 06:36	4°♊38'49	8.02946 AU	opposition	-3417 Nov 19 j 14:22	1°♊51'33	-1°-40'-14
direct	-3423 Oct 30 j 12:32	1°♊12'44		min. Earth dist.	-3417 Nov 19 j 02:17	1°♊54'04	8.05079 AU
evening set	-3422 Feb 09 j 14:17	9°♊18'59			-3417 Dec 13 j 08:11	30°♊	
conjunction	-3422 Feb 27 j 05:40	11°♊37'35	-2°-9'-28	direct	-3416 Jan 25 j 20:48	28°♊21'39	
minimum elong	-3422 Feb 27 j 05:37	11°♊37'34	2°09'36		-3416 Mar 09 j 01:32	0°♊	
max. Earth dist.	-3422 Feb 27 j 10:35	11°♊39'12	9.98428 AU	evening set	-3416 May 11 j 01:00	6°♊37'18	
morning rise	-3422 Mar 17 j 01:45	13°♊57'42		conjunction	-3416 May 29 j 04:44	8°♊56'56	-1°-5'-14
retrograde	-3422 Mar 25 j 05:02	15°♊		minimum elong	-3416 May 29 j 04:47	8°♊56'57	1°05'10
opposition	-3422 Jul 03 j 01:45	22°♊31'02		max. Earth dist.	-3416 May 29 j 20:34	9°♊02'02	10.10566 AU
min. Earth dist.	-3422 Sep 08 j 16:22	19°♊00'58	7.94923 AU	morning rise	-3416 Jun 16 j 06:00	11°♊15'40	
direct	-3422 Nov 13 j 19:58	15°♊32'59			-3416 Jul 17 j 21:34	15°♊	
evening set	-3421 Feb 24 j 17:46	23°♊47'35		retrograde	-3416 Sep 27 j 01:13	19°♊15'03	
conjunction	-3421 Mar 14 j 12:56	26°♊08'16	-2°-19'-58	opposition	-3416 Dec 02 j 12:55	15°♊48'34	-1°-1'-51
minimum elong	-3421 Mar 14 j 12:55	26°♊08'16	2°20'04	min. Earth dist.	-3416 Dec 02 j 01:19	15°♊50'57	8.16594 AU
max. Earth dist.	-3421 Mar 14 j 21:39	26°♊11'10	9.91836 AU		-3416 Dec 12 j 12:20	15°♊	
morning rise	-3421 Apr 01 j 11:54	28°♊30'11		direct	-3415 Feb 08 j 11:24	12°♊19'00	
retrograde	-3421 Apr 13 j 05:30	0°♊			-3415 Apr 06 j 04:11	15°♊	
opposition	-3421 Jul 18 j 05:39	7°♊06'40		evening set	-3415 May 25 j 18:36	20°♊26'49	
min. Earth dist.	-3421 Sep 23 j 05:31	3°♊36'54	7.89958 AU	conjunction	-3415 Jun 12 j 20:15	22°♊43'47	0°-33'-16
direct	-3421 Nov 28 j 09:36	0°♊07'14		minimum elong	-3415 Jun 12 j 20:17	22°♊43'47	0°33'12
evening set	-3420 Mar 11 j 04:45	8°♊28'04		max. Earth dist.	-3415 Jun 13 j 10:35	22°♊48'20	10.23174 AU
conjunction	-3420 Mar 29 j 03:22	10°♊50'13	-2°-21'-34	morning rise	-3415 Jun 30 j 18:23	24°♊59'33	
minimum elong	-3420 Mar 29 j 03:23	10°♊50'13	2°21'38		-3415 Aug 14 j 22:18	0°♊	
max. Earth dist.	-3420 Mar 29 j 15:20	10°♊54'12	9.88513 AU	retrograde	-3415 Oct 10 j 09:55	2°♊45'56	
morning rise	-3420 Apr 16 j 04:40	13°♊13'14			-3415 Dec 08 j 01:58	30°♊	
retrograde	-3420 Aug 01 j 09:03	21°♊49'02		opposition	-3415 Dec 16 j 03:21	29°♊21'10	0°-21'-10
opposition	-3420 Oct 07 j 06:00	18°♊17'51	-2°-54'-4	min. Earth dist.	-3415 Dec 15 j 16:24	29°♊23'23	8.29981 AU
min. Earth dist.	-3420 Oct 06 j 19:50	18°♊19'59	7.88401 AU	direct	-3414 Feb 22 j 19:07	25°♊52'16	
direct	-3420 Dec 12 j 04:34	14°♊48'56			-3414 May 06 j 07:22	0°♊	
evening set	-3419 Mar 26 j 19:36	23°♊13'12		evening set	-3414 Jun 09 j 00:56	3°♊50'58	
conjunction	-3419 Apr 13 j 21:08	25°♊36'03	-2°-13'-55	conjunction	-3414 Jun 26 j 23:12	6°♊04'46	0°00'-21
minimum elong	-3419 Apr 13 j 21:11	25°♊36'04	2°13'58	minimum elong	-3414 Jun 26 j 23:13	6°♊04'46	0°00'15
max. Earth dist.	-3419 Apr 14 j 11:48	25°♊40'55	9.88792 AU	behind sun begin	-3414 Jun 26 j 16:01	6°♊02'33	
morning rise	-3419 May 02 j 00:05	27°♊59'21		behind sun end	-3414 Jun 27 j 06:26	6°♊07'00	
	-3419 May 17 j 21:16	0°♊		max. Earth dist.	-3414 Jun 27 j 11:42	6°♊08'40	10.37226 AU
				asc. node	-3414 Jul 01 j 01:06	6°♊35'26	
				morning rise	-3414 Jul 14 j 17:02	8°♊17'10	
				retrograde	-3414 Oct 23 j 08:07	15°♊50'58	
				opposition	-3414 Dec 29 j 09:26	12°♊27'56	0°19'14
				min. Earth dist.	-3414 Dec 28 j 23:44	12°♊29'52	8.44435 AU



## Planetary Phenomena of Saturn from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:38, page 41

Attention, astronomical year style is used: The year -3413 in astronomical counting style is the year 3414 BCE in historical counting style.

direct	-3413 Mar 08 j 18:16	8° $\Pi$ 59'56		direct	-3407 May 21 j 23:35	20° $\Omega$ 10'55	
evening set	-3413 Jun 22 j 19:06	16° $\Pi$ 48'58		evening set	-3407 Sep 02 j 00:17	27° $\Omega$ 13'42	
conjunction	-3413 Jul 10 j 12:57	18° $\Pi$ 59'22	0°31'39	conjunction	-3407 Sep 18 j 13:50	29° $\Omega$ 08'18	2°23'16
minimum elong	-3413 Jul 10 j 12:56	18° $\Pi$ 59'21	0°31'47	minimum elong	-3407 Sep 18 j 13:49	29° $\Omega$ 08'18	2°23'20
max. Earth dist.	-3413 Jul 10 j 23:30	19° $\Pi$ 02'36	10.51917 AU	max. Earth dist.	-3407 Sep 18 j 05:56	29° $\Omega$ 06'01	11.17894 AU
morning rise	-3413 Jul 28 j 01:39	21° $\Pi$ 08'12			-3407 Sep 26 j 00:08	0° $\Pi$	
retrograde	-3413 Nov 04 j 22:14	28° $\Pi$ 30'29		morning rise	-3407 Oct 05 j 00:13	1° $\Pi$ 02'02	
opposition	-3412 Jan 11 j 07:47	25° $\Pi$ 09'08	0°57'19	retrograde	-3406 Jan 11 j 22:23	7° $\Pi$ 49'54	
min. Earth dist.	-3412 Jan 11 j 00:17	25° $\Pi$ 10'37	8.59181 AU	opposition	-3406 Mar 22 j 23:20	4° $\Pi$ 34'19	2°55'43
direct	-3412 Mar 21 j 07:14	21° $\Pi$ 42'13		min. Earth dist.	-3406 Mar 23 j 07:20	4° $\Pi$ 32'51	9.20106 AU
evening set	-3412 Jul 05 j 00:56	29° $\Pi$ 21'34		direct	-3406 Jun 02 j 17:19	1° $\Pi$ 14'40	
	-3412 Jul 10 j 09:25	0° $\Xi$		evening set	-3406 Sep 13 j 03:59	8° $\Pi$ 13'34	
conjunction	-3412 Jul 22 j 13:36	1° $\Xi$ 28'31	1°01'12	conjunction	-3406 Sep 29 j 15:04	10° $\Pi$ 07'14	2°24'07
minimum elong	-3412 Jul 22 j 13:34	1° $\Xi$ 28'30	1°01'20	minimum elong	-3406 Sep 29 j 15:04	10° $\Pi$ 07'14	2°24'10
max. Earth dist.	-3412 Jul 22 j 21:21	1° $\Xi$ 30'52	10.66500 AU	max. Earth dist.	-3406 Sep 29 j 04:34	10° $\Pi$ 04'12	11.21206 AU
morning rise	-3412 Aug 08 j 20:52	3° $\Xi$ 33'51		morning rise	-3406 Oct 15 j 23:55	12° $\Pi$ 00'18	
retrograde	-3412 Nov 16 j 03:02	10° $\Xi$ 46'05		retrograde	-3405 Jan 23 j 07:31	18° $\Pi$ 48'31	
opposition	-3411 Jan 22 j 22:49	7° $\Xi$ 26'17	1°31'27	opposition	-3405 Apr 03 j 16:56	15° $\Pi$ 32'50	2°53'30
min. Earth dist.	-3411 Jan 22 j 18:15	7° $\Xi$ 27'10	8.73506 AU	min. Earth dist.	-3405 Apr 04 j 02:28	15° $\Pi$ 31'06	9.22039 AU
direct	-3411 Apr 03 j 10:56	4° $\Xi$ 00'34		direct	-3405 Jun 14 j 10:07	12° $\Pi$ 14'00	
evening set	-3411 Jul 17 j 19:18	11° $\Xi$ 30'43		evening set	-3405 Sep 24 j 04:47	19° $\Pi$ 10'21	
conjunction	-3411 Aug 04 j 02:28	13° $\Xi$ 34'22	1°27'11	conjunction	-3405 Oct 10 j 14:33	21° $\Pi$ 03'41	2°19'41
minimum elong	-3411 Aug 04 j 02:25	13° $\Xi$ 34'21	1°27'19	minimum elong	-3405 Oct 10 j 14:35	21° $\Pi$ 03'41	2°19'43
max. Earth dist.	-3411 Aug 04 j 06:20	13° $\Xi$ 35'32	10.80314 AU	max. Earth dist.	-3405 Oct 10 j 03:01	21° $\Pi$ 00'20	11.21742 AU
morning rise	-3411 Aug 21 j 04:28	15° $\Xi$ 36'29		morning rise	-3405 Oct 26 j 22:44	22° $\Pi$ 56'38	
retrograde	-3411 Nov 27 j 23:09	22° $\Xi$ 40'17		retrograde	-3404 Feb 03 j 20:08	29° $\Pi$ 46'50	
opposition	-3410 Feb 04 j 07:10	19° $\Xi$ 21'51	2°00'31	opposition	-3404 Apr 14 j 11:08	26° $\Pi$ 30'46	2°45'00
min. Earth dist.	-3410 Feb 04 j 05:19	19° $\Xi$ 22'12	8.86779 AU	min. Earth dist.	-3404 Apr 14 j 21:38	26° $\Pi$ 28'51	9.21149 AU
direct	-3410 Apr 16 j 07:42	15° $\Xi$ 57'25		direct	-3404 Jun 24 j 23:25	23° $\Pi$ 12'33	
evening set	-3410 Jul 30 j 03:05	23° $\Xi$ 19'10			-3404 Oct 03 j 01:23	0° $\Xi$	
conjunction	-3410 Aug 16 j 04:55	25° $\Xi$ 19'50	1°48'48	evening set	-3404 Oct 04 j 04:25	0° $\Xi$ 07'40	
minimum elong	-3410 Aug 16 j 04:52	25° $\Xi$ 19'49	1°48'55	conjunction	-3404 Oct 20 j 13:48	2° $\Xi$ 01'14	2°10'08
max. Earth dist.	-3410 Aug 16 j 05:03	25° $\Xi$ 19'52	10.92791 AU	minimum elong	-3404 Oct 20 j 13:50	2° $\Xi$ 01'15	2°10'08
morning rise	-3410 Sep 02 j 01:59	27° $\Xi$ 19'05		max. Earth dist.	-3404 Oct 20 j 00:52	1° $\Xi$ 57'28	11.19468 AU
	-3410 Sep 26 j 09:35	0° $\Omega$		morning rise	-3404 Nov 05 j 22:24	3° $\Xi$ 54'41	
retrograde	-3410 Dec 09 j 15:56	4° $\Omega$ 16'16		retrograde	-3403 Feb 14 j 10:41	10° $\Xi$ 48'28	
opposition	-3409 Feb 16 j 10:18	0° $\Omega$ 58'57	2°23'48	opposition	-3403 Apr 26 j 07:09	7° $\Xi$ 31'43	2°30'26
min. Earth dist.	-3409 Feb 16 j 10:26	0° $\Omega$ 58'56	8.98461 AU	min. Earth dist.	-3403 Apr 26 j 19:21	7° $\Xi$ 29'30	9.17443 AU
	-3409 Mar 01 j 16:25	30° $\Re$ $\Xi$		direct	-3403 Jul 06 j 10:58	4° $\Xi$ 13'50	
direct	-3409 Apr 28 j 20:26	27° $\Xi$ 35'51		evening set	-3403 Oct 15 j 04:53	11° $\Xi$ 09'14	
	-3409 Jun 24 j 02:43	0° $\Omega$		conjunction	-3403 Oct 31 j 14:36	13° $\Xi$ 03'34	1°55'42
evening set	-3409 Aug 11 j 01:22	4° $\Omega$ 50'06		minimum elong	-3403 Oct 31 j 14:38	13° $\Xi$ 03'35	1°55'40
conjunction	-3409 Aug 27 j 22:27	6° $\Omega$ 48'15	2°05'32	max. Earth dist.	-3403 Oct 30 j 23:36	12° $\Xi$ 59'11	11.14428 AU
minimum elong	-3409 Aug 27 j 22:24	6° $\Omega$ 48'14	2°05'37	morning rise	-3403 Nov 17 j 00:40	14° $\Xi$ 58'04	
max. Earth dist.	-3409 Aug 27 j 20:14	6° $\Omega$ 47'36	11.03449 AU	retrograde	-3402 Feb 26 j 06:11	21° $\Xi$ 57'03	
morning rise	-3409 Sep 13 j 15:02	8° $\Omega$ 45'06		opposition	-3402 May 08 j 06:07	18° $\Xi$ 39'20	2°10'08
	-3409 Nov 23 j 21:57	15° $\Omega$		min. Earth dist.	-3402 May 08 j 19:48	18° $\Xi$ 36'50	9.11002 AU
retrograde	-3409 Dec 21 j 04:00	15° $\Omega$ 37'28		direct	-3402 Jul 18 j 01:02	15° $\Xi$ 21'30	
	-3408 Jan 17 j 20:28	15° $\Re$ $\Omega$		evening set	-3402 Oct 26 j 07:49	22° $\Xi$ 18'41	
opposition	-3408 Feb 28 j 09:15	12° $\Omega$ 21'00	2°40'53	conjunction	-3402 Nov 11 j 18:51	24° $\Xi$ 14'20	1°36'43
min. Earth dist.	-3408 Feb 28 j 11:29	12° $\Omega$ 20'35	9.08116 AU	minimum elong	-3402 Nov 11 j 18:53	24° $\Xi$ 14'21	1°36'40
direct	-3408 May 10 j 00:31	8° $\Omega$ 59'11		max. Earth dist.	-3402 Nov 11 j 02:58	24° $\Xi$ 09'39	11.06735 AU
	-3408 Aug 11 j 16:55	15° $\Omega$		morning rise	-3402 Nov 28 j 07:12	26° $\Xi$ 10'26	
evening set	-3408 Aug 21 j 15:55	16° $\Omega$ 07'05			-3401 Jan 03 j 11:59	0° $\Re$	
conjunction	-3408 Sep 07 j 08:53	18° $\Omega$ 03'11	2°17'04	retrograde	-3401 Mar 10 j 07:25	3° $\Re$ 16'18	
minimum elong	-3408 Sep 07 j 08:52	18° $\Omega$ 03'11	2°17'08		-3401 May 19 j 18:37	30° $\Re$ $\Xi$	
max. Earth dist.	-3408 Sep 07 j 04:25	18° $\Omega$ 01'53	11.11910 AU	opposition	-3401 May 20 j 09:14	29° $\Xi$ 57'18	1°44'31
morning rise	-3408 Sep 23 j 21:48	19° $\Omega$ 58'11		min. Earth dist.	-3401 May 20 j 23:11	29° $\Xi$ 54'44	9.01979 AU
retrograde	-3408 Dec 31 j 14:25	26° $\Omega$ 47'27		direct	-3401 Jul 29 j 17:06	26° $\Xi$ 39'18	
opposition	-3407 Mar 11 j 05:08	23° $\Omega$ 31'35	2°51'32		-3401 Oct 03 j 09:58	0° $\Re$	
min. Earth dist.	-3407 Mar 11 j 10:24	23° $\Omega$ 30'37	9.15413 AU	evening set	-3401 Nov 06 j 15:05	3° $\Re$ 39'52	

Attention, astronomical year style is used: The year -3401 in astronomical counting style is the year 3402 BCE in historical counting style.

conjunction	-3401 Nov 23 j 04:21	5° <del>ℳ</del> 37'22	1°13'38
minimum elong	-3401 Nov 23 j 04:23	5° <del>ℳ</del> 37'23	1°13'34
max. Earth dist.	-3401 Nov 22 j 12:59	5° <del>ℳ</del> 32'47	10.96568 AU
morning rise	-3401 Dec 09 j 19:35	7° <del>ℳ</del> 35'34	
retrograde	-3400 Mar 21 j 18:21	14° <del>ℳ</del> 49'58	
opposition	-3400 May 31 j 17:33	11° <del>ℳ</del> 29'29	1°14'08
min. Earth dist.	-3400 Jun 01 j 06:43	11° <del>ℳ</del> 27'02	8.90633 AU
direct	-3400 Aug 09 j 13:08	8° <del>ℳ</del> 11'03	
	-3400 Nov 14 j 20:19	15° <del>ℳ</del>	
evening set	-3400 Nov 17 j 05:06	15° <del>ℳ</del> 16'42	
conjunction	-3400 Dec 03 j 21:01	17° <del>ℳ</del> 16'30	0°47'03
minimum elong	-3400 Dec 03 j 21:03	17° <del>ℳ</del> 16'31	0°46'58
max. Earth dist.	-3400 Dec 03 j 05:51	17° <del>ℳ</del> 11'56	10.84280 AU
morning rise	-3400 Dec 20 j 15:46	19° <del>ℳ</del> 17'16	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 1

Attention, astronomical year style is used: The year -3400 in astronomical counting style is the year 3401 BCE in historical counting style.

retrograde	-3400 Mar 21 j 18:21	14° $\mathbb{M}$ 49'58		minimum elong	-3394 Feb 06 j 01:53	21° $\mathfrak{Z}$ 13'13	1°40'45
opposition	-3400 May 31 j 17:33	11° $\mathbb{M}$ 29'29	1°14'08	max. Earth dist.	-3394 Feb 06 j 00:05	21° $\mathfrak{Z}$ 12'38	10.12468 AU
min. Earth dist.	-3400 Jun 01 j 06:43	11° $\mathbb{M}$ 27'02	8.90633 AU	morning rise	-3394 Feb 23 j 16:53	23° $\mathfrak{Z}$ 29'44	
direct	-3400 Aug 09 j 13:08	8° $\mathbb{M}$ 11'03			-3394 Apr 25 j 12:49	0° $\approx$	
	-3400 Nov 14 j 20:19	15° $\mathbb{M}$		retrograde	-3394 Jun 11 j 11:57	1° $\approx$ 52'33	
evening set	-3400 Nov 17 j 05:06	15° $\mathbb{M}$ 16'42			-3394 Jul 29 j 05:44	30° $\mathbb{R}$ $\mathfrak{Z}$	
				opposition	-3394 Aug 19 j 03:28	28° $\mathfrak{Z}$ 22'04	-2°-20'-9
conjunction	-3400 Dec 03 j 21:01	17° $\mathbb{M}$ 16'30	0°47'03	min. Earth dist.	-3394 Aug 19 j 02:50	28° $\mathfrak{Z}$ 22'11	8.06592 AU
minimum elong	-3400 Dec 03 j 21:03	17° $\mathbb{M}$ 16'31	0°46'58	direct	-3394 Oct 24 j 11:24	24° $\mathfrak{Z}$ 56'35	
max. Earth dist.	-3400 Dec 03 j 05:51	17° $\mathbb{M}$ 11'56	10.84280 AU		-3393 Jan 09 j 21:56	0° $\approx$	
morning rise	-3400 Dec 20 j 15:46	19° $\mathbb{M}$ 17'16		evening set	-3393 Feb 03 j 03:42	2° $\approx$ 58'38	
retrograde	-3399 Apr 03 j 13:24	26° $\mathbb{M}$ 41'37					
opposition	-3399 Jun 13 j 08:07	23° $\mathbb{M}$ 19'31	0°39'49	conjunction	-3393 Feb 20 j 17:21	5° $\approx$ 16'16	-2°-1'-56
min. Earth dist.	-3399 Jun 13 j 20:26	23° $\mathbb{M}$ 17'12	8.77428 AU	minimum elong	-3393 Feb 20 j 17:18	5° $\approx$ 16'15	2°02'04
direct	-3399 Aug 21 j 11:51	20° $\mathbb{M}$ 00'23		max. Earth dist.	-3393 Feb 20 j 19:10	5° $\approx$ 16'52	10.01186 AU
evening set	-3399 Nov 29 j 03:32	27° $\mathbb{M}$ 12'44		morning rise	-3393 Mar 10 j 11:55	7° $\approx$ 35'30	
					-3393 May 22 j 00:56	15° $\approx$	
conjunction	-3399 Dec 15 j 22:29	29° $\mathbb{M}$ 15'12	0°17'47	retrograde	-3393 Jun 26 j 12:46	16° $\approx$ 06'44	
minimum elong	-3399 Dec 15 j 22:30	29° $\mathbb{M}$ 15'12	0°17'42		-3393 Aug 01 j 05:30	15° $\mathbb{R}$ $\approx$	
max. Earth dist.	-3399 Dec 15 j 07:39	29° $\mathbb{M}$ 10'40	10.70409 AU	opposition	-3393 Sep 02 j 14:08	12° $\approx$ 35'17	-2°-42'-54
	-3399 Dec 22 j 00:56	0° $\mathfrak{Z}$		min. Earth dist.	-3393 Sep 02 j 10:37	12° $\approx$ 36'01	7.96698 AU
morning rise	-3398 Jan 01 j 21:17	1° $\mathfrak{Z}$ 18'54		direct	-3393 Nov 07 j 13:41	9° $\approx$ 08'24	
retrograde	-3398 Apr 16 j 16:53	8° $\mathfrak{Z}$ 54'28			-3392 Jan 30 j 13:10	15° $\approx$	
opposition	-3398 Jun 26 j 06:06	5° $\mathfrak{Z}$ 30'34	0°02'37	evening set	-3392 Feb 18 j 02:57	17° $\approx$ 20'03	
min. Earth dist.	-3398 Jun 26 j 17:25	5° $\mathfrak{Z}$ 28'25	8.62962 AU				
desc. node	-3398 Jul 22 j 02:08	3° $\mathfrak{Z}$ 38'54		conjunction	-3392 Mar 06 j 20:21	19° $\approx$ 40'04	-2°-16'-13
direct	-3398 Sep 02 j 19:00	2° $\mathfrak{Z}$ 10'27		minimum elong	-3392 Mar 06 j 20:19	19° $\approx$ 40'04	2°16'19
evening set	-3398 Dec 11 j 11:59	9° $\mathfrak{Z}$ 30'59		max. Earth dist.	-3392 Mar 07 j 01:57	19° $\approx$ 41'56	9.92701 AU
				morning rise	-3392 Mar 24 j 18:09	22° $\approx$ 01'30	
conjunction	-3398 Dec 28 j 10:26	11° $\mathfrak{Z}$ 36'25	0°-13'-9		-3392 Jun 14 j 08:02	0° $\mathbb{H}$	
minimum elong	-3398 Dec 28 j 10:25	11° $\mathfrak{Z}$ 36'24	0°13'16	retrograde	-3392 Jul 10 j 17:14	0° $\mathbb{H}$ 37'55	
behind sun begin	-3398 Dec 28 j 06:15	11° $\mathfrak{Z}$ 35'07			-3392 Aug 06 j 02:08	30° $\mathbb{R}$ $\approx$	
behind sun end	-3398 Dec 28 j 14:36	11° $\mathfrak{Z}$ 37'41		opposition	-3392 Sep 16 j 05:12	27° $\approx$ 05'58	-2°-55'-49
max. Earth dist.	-3398 Dec 27 j 21:34	11° $\mathfrak{Z}$ 32'25	10.55575 AU	min. Earth dist.	-3392 Sep 15 j 23:03	27° $\approx$ 07'15	7.89894 AU
morning rise	-3397 Jan 14 j 13:27	13° $\mathfrak{Z}$ 43'17		direct	-3392 Nov 21 j 00:40	23° $\approx$ 37'49	
retrograde	-3397 Apr 30 j 06:57	21° $\mathfrak{Z}$ 30'56			-3391 Feb 17 j 02:57	0° $\mathbb{H}$	
opposition	-3397 Jul 09 j 11:49	18° $\mathfrak{Z}$ 05'12	0°-35'-59	evening set	-3391 Mar 04 j 11:04	1° $\mathbb{H}$ 57'02	
min. Earth dist.	-3397 Jul 09 j 21:15	18° $\mathfrak{Z}$ 03'22	8.47900 AU				
direct	-3397 Sep 15 j 10:18	14° $\mathfrak{Z}$ 43'54		conjunction	-3391 Mar 22 j 08:03	4° $\mathbb{H}$ 18'51	-2°-22'-1
evening set	-3397 Dec 24 j 08:20	22° $\mathfrak{Z}$ 13'54		minimum elong	-3391 Mar 22 j 08:03	4° $\mathbb{H}$ 18'51	2°22'06
				max. Earth dist.	-3391 Mar 22 j 17:29	4° $\mathbb{H}$ 22'00	9.87594 AU
conjunction	-3396 Jan 10 j 10:34	24° $\mathfrak{Z}$ 22'28	0°-44'-17	morning rise	-3391 Apr 09 j 08:34	6° $\mathbb{H}$ 41'46	
minimum elong	-3396 Jan 10 j 10:32	24° $\mathfrak{Z}$ 22'28	0°44'25	retrograde	-3391 Jul 25 j 21:38	15° $\mathbb{H}$ 19'27	
max. Earth dist.	-3396 Jan 10 j 00:59	24° $\mathfrak{Z}$ 19'27	10.40462 AU	opposition	-3391 Sep 30 j 22:19	11° $\mathbb{H}$ 47'29	-2°-57'-25
morning rise	-3396 Jan 27 j 17:43	26° $\mathfrak{Z}$ 32'39		min. Earth dist.	-3391 Sep 30 j 13:42	11° $\mathbb{H}$ 49'17	7.86655 AU
	-3396 Feb 26 j 11:09	0° $\mathfrak{Z}$		direct	-3391 Dec 05 j 19:19	8° $\mathbb{H}$ 18'18	
retrograde	-3396 May 13 j 07:39	4° $\mathfrak{Z}$ 32'40		evening set	-3390 Mar 20 j 00:57	16° $\mathbb{H}$ 42'19	
opposition	-3396 Jul 22 j 01:15	1° $\mathfrak{Z}$ 05'09	-1°-14'-11				
min. Earth dist.	-3396 Jul 22 j 07:44	1° $\mathfrak{Z}$ 03'52	8.32965 AU	conjunction	-3390 Apr 07 j 01:12	19° $\mathbb{H}$ 05'12	-2°-18'-36
	-3396 Aug 05 j 01:32	30° $\mathbb{R}$ $\mathfrak{Z}$		minimum elong	-3390 Apr 07 j 01:14	19° $\mathbb{H}$ 05'13	2°18'40
direct	-3396 Sep 27 j 09:05	27° $\mathfrak{Z}$ 42'31		max. Earth dist.	-3390 Apr 07 j 14:02	19° $\mathbb{H}$ 09'29	9.86246 AU
	-3396 Nov 17 j 10:12	0° $\mathfrak{Z}$		morning rise	-3390 Apr 25 j 03:48	21° $\mathbb{H}$ 28'48	
evening set	-3395 Jan 05 j 17:33	5° $\mathfrak{Z}$ 23'00			-3390 Aug 02 j 00:41	0° $\mathbb{Y}$	
				retrograde	-3390 Aug 09 j 22:04	0° $\mathbb{Y}$ 03'31	
conjunction	-3395 Jan 22 j 23:38	7° $\mathfrak{Z}$ 34'44	-1°-14'-4		-3390 Aug 17 j 19:03	30° $\mathbb{R}$ $\mathbb{H}$	
minimum elong	-3395 Jan 22 j 23:35	7° $\mathfrak{Z}$ 34'43	1°14'12	opposition	-3390 Oct 15 j 14:54	26° $\mathbb{H}$ 32'01	-2°-47'-19
max. Earth dist.	-3395 Jan 22 j 17:54	7° $\mathfrak{Z}$ 32'54	10.25826 AU	min. Earth dist.	-3390 Oct 15 j 04:08	26° $\mathbb{H}$ 34'17	7.87221 AU
morning rise	-3395 Feb 09 j 10:45	9° $\mathfrak{Z}$ 48'10		direct	-3390 Dec 20 j 17:38	23° $\mathbb{H}$ 02'07	
retrograde	-3395 May 27 j 17:30	18° $\mathfrak{Z}$ 00'13			-3389 Mar 24 j 05:46	0° $\mathbb{Y}$	
opposition	-3395 Aug 04 j 22:42	14° $\mathfrak{Z}$ 31'05	-1°-49'-44	evening set	-3389 Apr 04 j 16:40	1° $\mathbb{Y}$ 27'43	
min. Earth dist.	-3395 Aug 05 j 01:36	14° $\mathfrak{Z}$ 30'30	8.18931 AU				
direct	-3395 Oct 10 j 17:47	11° $\mathfrak{Z}$ 07'03		conjunction	-3389 Apr 22 j 19:31	3° $\mathbb{Y}$ 50'49	-2°-6'-8
evening set	-3394 Jan 19 j 16:03	18° $\mathfrak{Z}$ 58'25		minimum elong	-3389 Apr 22 j 19:34	3° $\mathbb{Y}$ 50'51	2°06'10
				max. Earth dist.	-3389 Apr 23 j 11:06	3° $\mathbb{Y}$ 55'59	9.88760 AU
conjunction	-3394 Feb 06 j 01:56	21° $\mathfrak{Z}$ 13'14	-1°-40'-36	morning rise	-3389 May 10 j 23:15	6° $\mathbb{Y}$ 14'10	

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Attention, astronomical year style is used: The year -3389 in astronomical counting style is the year 3390 BCE in historical counting style.

retrograde	-3389 Aug 24 j 16:45	14° $\Upsilon$ 42'02		retrograde	-3383 Nov 11 j 02:58	5° $\Theta$ 35'08	
opposition	-3389 Oct 30 j 04:43	11° $\Upsilon$ 11'30	-2°-26'-19	opposition	-3382 Jan 17 j 18:07	2° $\Theta$ 15'03	1°16'43
min. Earth dist.	-3389 Oct 29 j 16:04	11° $\Upsilon$ 14'09	7.91555 AU	min. Earth dist.	-3382 Jan 17 j 11:13	2° $\Theta$ 16'24	8.67754 AU
direct	-3388 Jan 04 j 16:47	7° $\Upsilon$ 41'14			-3382 Feb 18 j 11:39	30° $\mathbb{R}$ II	
evening set	-3388 Apr 19 j 06:07	16° $\Upsilon$ 05'06		direct	-3382 Mar 29 j 00:41	28° $\mathbb{I}$ 49'15	
					-3382 May 06 j 05:43	0° $\Theta$	
conjunction	-3388 May 07 j 10:27	18° $\Upsilon$ 27'30	-1°-45'-40	evening set	-3382 Jul 12 j 13:48	6° $\Theta$ 23'35	
minimum elong	-3388 May 07 j 10:31	18° $\Upsilon$ 27'31	1°45'39				
max. Earth dist.	-3388 May 08 j 03:59	18° $\Upsilon$ 33'15	9.94954 AU	conjunction	-3382 Jul 29 j 23:30	8° $\Theta$ 28'41	1°16'04
morning rise	-3388 May 25 j 14:07	20° $\Upsilon$ 49'38		minimum elong	-3382 Jul 29 j 23:27	8° $\Theta$ 28'40	1°16'11
retrograde	-3388 Sep 07 j 03:32	29° $\Upsilon$ 07'33		max. Earth dist.	-3382 Jul 30 j 05:34	8° $\Theta$ 30'30	10.74975 AU
opposition	-3388 Nov 12 j 13:35	25° $\Upsilon$ 38'23	-1°-56'-16	morning rise	-3382 Aug 16 j 03:54	10° $\Theta$ 32'12	
min. Earth dist.	-3388 Nov 11 j 23:51	25° $\Upsilon$ 41'15	7.99363 AU	retrograde	-3382 Nov 23 j 04:01	17° $\Theta$ 39'38	
direct	-3387 Jan 18 j 13:32	22° $\Upsilon$ 08'09		opposition	-3381 Jan 30 j 05:44	14° $\Theta$ 21'02	1°48'10
	-3387 Apr 30 j 23:35	0° $\mathbb{X}$		min. Earth dist.	-3381 Jan 30 j 01:29	14° $\Theta$ 21'51	8.81801 AU
evening set	-3387 May 04 j 13:47	0° $\mathbb{X}$ 27'18		direct	-3381 Apr 11 j 01:10	10° $\Theta$ 56'31	
				evening set	-3381 Jul 25 j 02:41	18° $\Theta$ 21'56	
conjunction	-3387 May 22 j 18:13	2° $\mathbb{X}$ 48'07	-1°-18'-54				
minimum elong	-3387 May 22 j 18:17	2° $\mathbb{X}$ 48'08	1°18'52	conjunction	-3381 Aug 11 j 07:01	20° $\Theta$ 23'52	1°39'43
max. Earth dist.	-3387 May 23 j 12:27	2° $\mathbb{X}$ 54'02	10.04401 AU	minimum elong	-3381 Aug 11 j 06:58	20° $\Theta$ 23'51	1°39'50
morning rise	-3387 Jun 09 j 20:33	5° $\mathbb{X}$ 08'12		max. Earth dist.	-3381 Aug 11 j 09:53	20° $\Theta$ 24'43	10.88243 AU
retrograde	-3387 Sep 21 j 05:51	13° $\mathbb{X}$ 14'06		morning rise	-3381 Aug 28 j 06:06	22° $\Theta$ 24'18	
opposition	-3387 Nov 26 j 15:49	9° $\mathbb{X}$ 46'36	-1°-19'-47	retrograde	-3381 Dec 04 j 23:49	29° $\Theta$ 24'16	
min. Earth dist.	-3387 Nov 26 j 02:12	9° $\mathbb{X}$ 49'25	8.10130 AU	opposition	-3380 Feb 11 j 11:36	26° $\Theta$ 06'55	2°14'06
direct	-3386 Feb 02 j 05:35	6° $\mathbb{X}$ 16'44		min. Earth dist.	-3380 Feb 11 j 11:01	26° $\Theta$ 07'01	8.94270 AU
evening set	-3386 May 19 j 12:49	14° $\mathbb{X}$ 28'51		direct	-3380 Apr 22 j 16:12	22° $\Theta$ 43'41	
	-3386 May 23 j 15:40	15° $\mathbb{X}$		evening set	-3380 Aug 05 j 05:30	0° $\mathbb{Q}$ 01'10	
					-3380 Aug 05 j 01:26	0° $\mathbb{Q}$	
conjunction	-3386 Jun 06 j 15:51	16° $\mathbb{X}$ 47'16	0°-48'-1				
minimum elong	-3386 Jun 06 j 15:53	16° $\mathbb{X}$ 47'17	0°47'57	conjunction	-3380 Aug 22 j 04:40	2° $\mathbb{Q}$ 00'22	1°58'40
max. Earth dist.	-3386 Jun 07 j 09:20	16° $\mathbb{X}$ 52'52	10.16462 AU	minimum elong	-3380 Aug 22 j 04:37	2° $\mathbb{Q}$ 00'21	1°58'46
morning rise	-3386 Jun 24 j 15:31	19° $\mathbb{X}$ 04'36		max. Earth dist.	-3380 Aug 22 j 03:13	1° $\mathbb{Q}$ 59'57	10.99661 AU
retrograde	-3386 Oct 04 j 21:14	26° $\mathbb{X}$ 57'29		morning rise	-3380 Sep 07 j 23:07	3° $\mathbb{Q}$ 58'13	
opposition	-3386 Dec 10 j 10:31	23° $\mathbb{X}$ 31'53	0°-39'-43	retrograde	-3380 Dec 15 j 12:32	10° $\mathbb{Q}$ 52'34	
min. Earth dist.	-3386 Dec 09 j 22:08	23° $\mathbb{X}$ 34'24	8.23152 AU	opposition	-3379 Feb 22 j 12:39	7° $\mathbb{Q}$ 36'10	2°33'59
direct	-3385 Feb 16 j 16:48	20° $\mathbb{X}$ 02'43		min. Earth dist.	-3379 Feb 22 j 15:26	7° $\mathbb{Q}$ 35'39	9.04683 AU
evening set	-3385 Jun 03 j 01:14	28° $\mathbb{X}$ 06'10		direct	-3379 May 05 j 00:01	4° $\mathbb{Q}$ 14'08	
	-3385 Jun 18 j 04:54	0° $\mathbb{I}$		evening set	-3379 Aug 16 j 23:54	11° $\mathbb{Q}$ 24'54	
conjunction	-3385 Jun 21 j 01:17	0° $\mathbb{I}$ 21'35	0°-15'-14	conjunction	-3379 Sep 02 j 18:30	13° $\mathbb{Q}$ 21'50	2°12'32
minimum elong	-3385 Jun 21 j 01:17	0° $\mathbb{I}$ 21'35	0°15'08	minimum elong	-3379 Sep 02 j 18:28	13° $\mathbb{Q}$ 21'50	2°12'36
behind sun begin	-3385 Jun 20 j 23:07	0° $\mathbb{I}$ 20'54		max. Earth dist.	-3379 Sep 02 j 13:05	13° $\mathbb{Q}$ 20'15	11.08864 AU
behind sun end	-3385 Jun 21 j 03:28	0° $\mathbb{I}$ 22'16			-3379 Sep 16 j 19:45	15° $\mathbb{Q}$	
max. Earth dist.	-3385 Jun 21 j 16:39	0° $\mathbb{I}$ 26'25	10.30360 AU	morning rise	-3379 Sep 19 j 09:06	15° $\mathbb{Q}$ 17'37	
morning rise	-3385 Jul 08 j 21:07	2° $\mathbb{I}$ 35'38		retrograde	-3379 Dec 26 j 23:34	22° $\mathbb{Q}$ 08'11	
retrograde	-3385 Oct 18 j 00:33	10° $\mathbb{I}$ 15'32		opposition	-3378 Mar 06 j 09:58	18° $\mathbb{Q}$ 52'23	2°47'31
asc. node	-3385 Dec 12 j 19:30	7° $\mathbb{I}$ 44'29		min. Earth dist.	-3378 Mar 06 j 15:05	18° $\mathbb{Q}$ 51'26	9.12728 AU
opposition	-3385 Dec 23 j 21:06	6° $\mathbb{I}$ 51'54	0°01'11	direct	-3378 May 17 j 03:47	15° $\mathbb{Q}$ 31'26	
min. Earth dist.	-3385 Dec 23 j 10:35	6° $\mathbb{I}$ 54'00	8.37641 AU	evening set	-3378 Aug 28 j 11:14	22° $\mathbb{Q}$ 36'36	
direct	-3384 Mar 01 j 20:37	3° $\mathbb{I}$ 23'41					
evening set	-3384 Jun 16 j 01:42	11° $\mathbb{I}$ 17'33		conjunction	-3378 Sep 14 j 02:13	24° $\mathbb{Q}$ 31'50	2°21'06
				minimum elong	-3378 Sep 14 j 02:12	24° $\mathbb{Q}$ 31'50	2°21'10
conjunction	-3384 Jul 03 j 21:34	13° $\mathbb{I}$ 29'34	0°17'29	max. Earth dist.	-3378 Sep 13 j 18:31	24° $\mathbb{Q}$ 29'36	11.15600 AU
minimum elong	-3384 Jul 03 j 21:33	13° $\mathbb{I}$ 29'34	0°17'37	morning rise	-3378 Sep 30 j 13:41	26° $\mathbb{Q}$ 26'06	
max. Earth dist.	-3384 Jul 04 j 09:43	13° $\mathbb{I}$ 33'20	10.45283 AU		-3378 Nov 03 j 13:44	0° $\mathbb{P}$	
morning rise	-3384 Jul 21 j 12:44	15° $\mathbb{I}$ 40'05		retrograde	-3377 Jan 07 j 09:27	3° $\mathbb{P}$ 14'37	
retrograde	-3384 Oct 29 j 17:58	23° $\mathbb{I}$ 07'47			-3377 Mar 17 j 23:57	30° $\mathbb{R}$ II	
opposition	-3383 Jan 04 j 23:30	19° $\mathbb{I}$ 46'00	0°40'37	opposition	-3377 Mar 18 j 05:09	29° $\mathbb{Q}$ 59'03	2°54'35
min. Earth dist.	-3383 Jan 04 j 14:41	19° $\mathbb{I}$ 47'45	8.52780 AU	min. Earth dist.	-3377 Mar 18 j 12:08	29° $\mathbb{Q}$ 57'46	9.18186 AU
direct	-3383 Mar 15 j 15:27	16° $\mathbb{I}$ 18'57		direct	-3377 May 29 j 00:15	26° $\mathbb{Q}$ 39'03	
evening set	-3383 Jun 29 j 13:42	24° $\mathbb{I}$ 02'55			-3377 Aug 04 j 13:38	0° $\mathbb{P}$	
				evening set	-3377 Sep 08 j 17:01	3° $\mathbb{P}$ 39'46	
conjunction	-3383 Jul 17 j 04:41	26° $\mathbb{I}$ 11'26	0°48'20				
minimum elong	-3383 Jul 17 j 04:39	26° $\mathbb{I}$ 11'25	0°48'28	conjunction	-3377 Sep 25 j 05:16	5° $\mathbb{P}$ 33'52	2°24'20
max. Earth dist.	-3383 Jul 17 j 13:42	26° $\mathbb{I}$ 14'11	10.60419 AU	minimum elong	-3377 Sep 25 j 05:16	5° $\mathbb{P}$ 33'52	2°24'23
morning rise	-3383 Aug 03 j 14:38	28° $\mathbb{I}$ 18'22		max. Earth dist.	-3377 Sep 24 j 19:39	5° $\mathbb{P}$ 31'04	11.19686 AU
	-3383 Aug 18 j 02:58	0° $\Theta$		morning rise	-3377 Oct 11 j 14:35	7° $\mathbb{P}$ 27'13	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 3

Attention, astronomical year style is used: The year -3376 in astronomical counting style is the year 3377 BCE in historical counting style.

retrograde	-3376 Jan 18 j 18:53	14° $\mathring{M}$ 15'21		min. Earth dist.	-3370 Jun 08 j 17:42	18° $\mathring{M}$ 19'58	8.81902 AU
opposition	-3376 Mar 28 j 23:12	10° $\mathring{M}$ 59'42	2°55'12	direct	-3370 Aug 16 j 15:47	15° $\mathring{M}$ 03'05	
min. Earth dist.	-3376 Mar 29 j 08:42	10° $\mathring{M}$ 57'57	9.20916 AU	evening set	-3370 Nov 24 j 06:55	22° $\mathring{M}$ 12'44	
direct	-3376 Jun 08 j 16:58	7° $\mathring{M}$ 40'24		max. Earth dist.	-3370 Dec 10 j 10:50	24° $\mathring{M}$ 09'56	10.75317 AU
evening set	-3376 Sep 18 j 19:12	14° $\mathring{M}$ 38'01					
				conjunction	-3370 Dec 11 j 00:35	24° $\mathring{M}$ 14'07	0°30'54
conjunction	-3376 Oct 05 j 05:31	16° $\mathring{M}$ 31'32	2°22'14	minimum elong	-3370 Dec 11 j 00:37	24° $\mathring{M}$ 14'07	0°30'49
minimum elong	-3376 Oct 05 j 05:32	16° $\mathring{M}$ 31'32	2°22'16	morning rise	-3370 Dec 27 j 21:36	26° $\mathring{M}$ 16'37	
max. Earth dist.	-3376 Oct 04 j 17:08	16° $\mathring{M}$ 27'56	11.21020 AU		-3369 Jan 30 j 15:01	0° $\mathring{M}$	
morning rise	-3376 Oct 21 j 13:55	18° $\mathring{M}$ 24'33		retrograde	-3369 Apr 11 j 05:59	3° $\mathring{M}$ 47'29	
retrograde	-3375 Jan 29 j 04:26	25° $\mathring{M}$ 13'55		opposition	-3369 Jun 20 j 23:23	0° $\mathring{M}$ 23'57	0°19'13
opposition	-3375 Apr 09 j 17:04	21° $\mathring{M}$ 57'52	2°49'29	min. Earth dist.	-3369 Jun 21 j 10:18	0° $\mathring{M}$ 21'52	8.68294 AU
min. Earth dist.	-3375 Apr 10 j 05:01	21° $\mathring{M}$ 55'41	9.20850 AU		-3369 Jun 26 j 05:41	30° $\mathring{R}$ $\mathring{M}$	
direct	-3375 Jun 20 j 07:00	18° $\mathring{M}$ 39'03		direct	-3369 Aug 28 j 20:17	27° $\mathring{M}$ 03'55	
evening set	-3375 Sep 29 j 19:20	25° $\mathring{M}$ 34'57			-3369 Oct 27 j 11:45	0° $\mathring{M}$	
				evening set	-3369 Dec 06 j 10:45	4° $\mathring{M}$ 21'01	
conjunction	-3375 Oct 16 j 04:44	27° $\mathring{M}$ 28'27	2°14'56				
minimum elong	-3375 Oct 16 j 04:46	27° $\mathring{M}$ 28'28	2°14'56	conjunction	-3369 Dec 23 j 07:49	6° $\mathring{M}$ 25'13	0°00'34
max. Earth dist.	-3375 Oct 15 j 14:18	27° $\mathring{M}$ 24'16	11.19577 AU	minimum elong	-3369 Dec 23 j 07:48	6° $\mathring{M}$ 25'13	0°00'28
morning rise	-3375 Nov 01 j 13:14	29° $\mathring{M}$ 21'45		behind sun begin	-3369 Dec 23 j 00:46	6° $\mathring{M}$ 23'04	
	-3375 Nov 07 j 04:53	0° $\mathring{M}$		behind sun end	-3369 Dec 23 j 14:51	6° $\mathring{M}$ 27'22	
retrograde	-3374 Feb 09 j 16:29	6° $\mathring{M}$ 14'03		max. Earth dist.	-3369 Dec 22 j 20:03	6° $\mathring{M}$ 21'36	10.61226 AU
opposition	-3374 Apr 21 j 12:13	2° $\mathring{M}$ 57'16	2°37'35	desc. node	-3369 Dec 29 j 22:43	7° $\mathring{M}$ 14'17	
min. Earth dist.	-3374 Apr 22 j 01:07	2° $\mathring{M}$ 54'54	9.17997 AU	morning rise	-3368 Jan 09 j 08:50	8° $\mathring{M}$ 30'46	
	-3374 Jun 10 j 14:58	30° $\mathring{R}$ $\mathring{M}$		retrograde	-3368 Apr 23 j 17:05	16° $\mathring{M}$ 13'18	
direct	-3374 Jul 01 j 20:52	29° $\mathring{M}$ 38'46		opposition	-3368 Jul 03 j 01:35	12° $\mathring{M}$ 48'06	0°-18'-59
	-3374 Jul 22 j 20:45	0° $\mathring{M}$		min. Earth dist.	-3368 Jul 03 j 10:07	12° $\mathring{M}$ 46'27	8.53828 AU
evening set	-3374 Oct 10 j 19:03	6° $\mathring{M}$ 34'20		direct	-3368 Sep 09 j 06:47	9° $\mathring{M}$ 27'11	
				evening set	-3368 Dec 18 j 01:54	16° $\mathring{M}$ 53'08	
conjunction	-3374 Oct 27 j 04:39	8° $\mathring{M}$ 28'24	2°02'37				
minimum elong	-3374 Oct 27 j 04:42	8° $\mathring{M}$ 28'25	2°02'36	conjunction	-3367 Jan 04 j 02:25	19° $\mathring{M}$ 00'21	0°-30'-41
max. Earth dist.	-3374 Oct 26 j 14:02	8° $\mathring{M}$ 24'08	11.15401 AU	minimum elong	-3367 Jan 04 j 02:23	19° $\mathring{M}$ 00'21	0°30'49
morning rise	-3374 Nov 12 j 14:01	10° $\mathring{M}$ 22'30		max. Earth dist.	-3367 Jan 03 j 16:25	18° $\mathring{M}$ 57'14	10.46575 AU
retrograde	-3373 Feb 21 j 11:45	17° $\mathring{M}$ 19'25		morning rise	-3367 Jan 21 j 07:39	21° $\mathring{M}$ 09'08	
opposition	-3373 May 03 j 09:48	14° $\mathring{M}$ 01'39	2°19'47	retrograde	-3367 May 07 j 14:19	29° $\mathring{M}$ 03'55	
min. Earth dist.	-3373 May 03 j 22:49	13° $\mathring{M}$ 59'16	9.12451 AU	opposition	-3367 Jul 16 j 11:50	25° $\mathring{M}$ 37'07	0°-57'-38
direct	-3373 Jul 13 j 10:57	10° $\mathring{M}$ 43'16		min. Earth dist.	-3367 Jul 16 j 18:13	25° $\mathring{M}$ 35'52	8.39179 AU
evening set	-3373 Oct 21 j 20:38	17° $\mathring{M}$ 39'57		direct	-3367 Sep 22 j 00:39	22° $\mathring{M}$ 15'07	
				evening set	-3367 Dec 31 j 05:33	29° $\mathring{M}$ 51'05	
conjunction	-3373 Nov 07 j 07:13	19° $\mathring{M}$ 35'09	1°45'36		-3366 Jan 01 j 10:07	0° $\mathring{M}$	
minimum elong	-3373 Nov 07 j 07:16	19° $\mathring{M}$ 35'10	1°45'33				
max. Earth dist.	-3373 Nov 06 j 16:10	19° $\mathring{M}$ 30'43	11.08626 AU	conjunction	-3366 Jan 17 j 09:43	2° $\mathring{M}$ 01'26	-1°-1'-17
morning rise	-3373 Nov 23 j 18:26	21° $\mathring{M}$ 30'39		minimum elong	-3366 Jan 17 j 09:41	2° $\mathring{M}$ 01'26	1°01'26
retrograde	-3372 Mar 04 j 10:04	28° $\mathring{M}$ 33'45		max. Earth dist.	-3366 Jan 17 j 02:27	1° $\mathring{M}$ 59'07	10.32086 AU
opposition	-3372 May 14 j 10:55	25° $\mathring{M}$ 14'47	1°56'27	morning rise	-3366 Feb 03 j 19:09	4° $\mathring{M}$ 13'28	
min. Earth dist.	-3372 May 15 j 00:18	25° $\mathring{M}$ 12'19	9.04395 AU	retrograde	-3366 May 21 j 20:00	12° $\mathring{M}$ 20'27	
direct	-3372 Jul 23 j 23:46	21° $\mathring{M}$ 56'18		opposition	-3366 Jul 30 j 06:16	8° $\mathring{M}$ 52'10	-1°-34'-37
evening set	-3372 Nov 01 j 01:52	28° $\mathring{M}$ 55'44		min. Earth dist.	-3366 Jul 30 j 10:09	8° $\mathring{M}$ 51'24	8.25108 AU
	-3372 Nov 10 j 04:58	0° $\mathring{M}$		direct	-3366 Oct 05 j 05:42	5° $\mathring{M}$ 28'58	
				evening set	-3365 Jan 13 j 22:25	13° $\mathring{M}$ 15'38	
conjunction	-3372 Nov 17 j 14:06	0° $\mathring{M}$ 52'32	1°24'15				
minimum elong	-3372 Nov 17 j 14:09	0° $\mathring{M}$ 52'33	1°24'11	conjunction	-3365 Jan 31 j 06:28	15° $\mathring{M}$ 29'05	-1°-29'-29
max. Earth dist.	-3372 Nov 16 j 21:56	0° $\mathring{M}$ 47'44	10.99472 AU	minimum elong	-3365 Jan 31 j 06:25	15° $\mathring{M}$ 29'04	1°29'38
morning rise	-3372 Dec 04 j 04:07	2° $\mathring{M}$ 49'56		max. Earth dist.	-3365 Jan 31 j 03:02	15° $\mathring{M}$ 27'59	10.18534 AU
retrograde	-3371 Mar 16 j 16:07	10° $\mathring{M}$ 00'50		morning rise	-3365 Feb 17 j 19:52	17° $\mathring{M}$ 44'15	
opposition	-3371 May 26 j 16:54	6° $\mathring{M}$ 40'29	1°28'04	retrograde	-3365 Jun 05 j 10:30	26° $\mathring{M}$ 02'33	
min. Earth dist.	-3371 May 27 j 06:46	6° $\mathring{M}$ 37'55	8.94092 AU	opposition	-3365 Aug 13 j 08:18	22° $\mathring{M}$ 32'58	-2°-7'-33
direct	-3371 Aug 04 j 17:53	3° $\mathring{M}$ 21'41		min. Earth dist.	-3365 Aug 13 j 09:11	22° $\mathring{M}$ 32'48	8.12390 AU
evening set	-3371 Nov 12 j 12:36	10° $\mathring{M}$ 25'26		direct	-3365 Oct 18 j 20:27	19° $\mathring{M}$ 08'30	
max. Earth dist.	-3371 Nov 28 j 11:35	12° $\mathring{M}$ 19'37	10.88236 AU	evening set	-3364 Jan 28 j 04:45	27° $\mathring{M}$ 05'53	
conjunction	-3371 Nov 29 j 03:13	12° $\mathring{M}$ 24'19	0°59'06	conjunction	-3364 Feb 14 j 16:41	29° $\mathring{M}$ 22'14	-1°-53'-19
minimum elong	-3371 Nov 29 j 03:15	12° $\mathring{M}$ 24'20	0°59'02	minimum elong	-3364 Feb 14 j 16:37	29° $\mathring{M}$ 22'13	1°53'26
morning rise	-3371 Dec 15 j 20:33	14° $\mathring{M}$ 24'05		max. Earth dist.	-3364 Feb 14 j 17:53	29° $\mathring{M}$ 22'38	10.06699 AU
	-3371 Dec 20 j 23:38	15° $\mathring{M}$			-3364 Feb 19 j 12:11	0° $\mathring{M}$	
retrograde	-3370 Mar 29 j 06:23	21° $\mathring{M}$ 44'17		morning rise	-3364 Mar 03 j 09:39	1° $\mathring{M}$ 40'14	
opposition	-3370 Jun 08 j 04:45	18° $\mathring{M}$ 22'24	0°55'20	retrograde	-3364 Jun 19 j 08:43	10° $\mathring{M}$ 07'54	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 4

Attention, astronomical year style is used: The year -3364 in astronomical counting style is the year 3365 BCE in historical counting style.

opposition	-3364 Aug 26 j 16:41	6° $\approx$ 37'20	-2°-33'-54	evening set	-3357 May 13 j 12:06	8° $\approx$ 41'35	
min. Earth dist.	-3364 Aug 26 j 14:04	6° $\approx$ 37'52	8.01779 AU				
direct	-3364 Oct 31 j 19:41	3° $\approx$ 11'35		conjunction	-3357 May 31 j 15:49	11° $\approx$ 01'09	-1°-1'-40
evening set	-3363 Feb 10 j 23:15	11° $\approx$ 18'54		minimum elong	-3357 May 31 j 15:52	11° $\approx$ 01'10	1°01'37
				max. Earth dist.	-3357 Jun 01 j 07:29	11° $\approx$ 06'12	10.11060 AU
conjunction	-3363 Feb 28 j 15:00	13° $\approx$ 37'47	-2°-10'-51	morning rise	-3357 Jun 18 j 17:00	13° $\approx$ 19'48	
minimum elong	-3363 Feb 28 j 14:58	13° $\approx$ 37'46	2°10'57		-3357 Jul 02 j 05:37	15° $\approx$	
max. Earth dist.	-3363 Feb 28 j 20:47	13° $\approx$ 39'41	9.97319 AU	retrograde	-3357 Sep 29 j 10:14	21° $\approx$ 18'36	
	-3363 Mar 11 j 00:37	15° $\approx$		opposition	-3357 Dec 04 j 22:10	17° $\approx$ 52'17	0°-57'-14
morning rise	-3363 Mar 18 j 11:14	15° $\approx$ 58'09		min. Earth dist.	-3357 Dec 04 j 10:03	17° $\approx$ 54'46	8.17172 AU
retrograde	-3363 Jul 04 j 11:55	24° $\approx$ 32'19			-3356 Jan 15 j 10:12	15° $\approx$	
opposition	-3363 Sep 10 j 06:09	21° $\approx$ 01'06	-2°-51'-16	direct	-3356 Feb 10 j 22:26	14° $\approx$ 22'50	
min. Earth dist.	-3363 Sep 10 j 00:04	21° $\approx$ 02'21	7.93923 AU		-3356 Mar 08 j 08:51	15° $\approx$	
direct	-3363 Nov 15 j 03:09	17° $\approx$ 34'06		evening set	-3356 May 27 j 05:21	22° $\approx$ 30'23	
evening set	-3362 Feb 26 j 03:45	25° $\approx$ 49'41					
				conjunction	-3356 Jun 14 j 06:54	24° $\approx$ 47'13	0°-29'-27
conjunction	-3362 Mar 15 j 23:12	28° $\approx$ 10'35	-2°-20'-27	minimum elong	-3356 Jun 14 j 06:55	24° $\approx$ 47'13	0°29'23
minimum elong	-3362 Mar 15 j 23:12	28° $\approx$ 10'35	2°20'32	max. Earth dist.	-3356 Jun 14 j 21:43	24° $\approx$ 51'55	10.23843 AU
max. Earth dist.	-3362 Mar 16 j 08:48	28° $\approx$ 13'46	9.90971 AU	morning rise	-3356 Jul 02 j 04:42	27° $\approx$ 02'50	
	-3362 Mar 29 j 18:08	0° $\approx$			-3356 Jul 27 j 03:07	0° $\approx$	
morning rise	-3362 Apr 02 j 22:20	0° $\approx$ 32'42		retrograde	-3356 Oct 11 j 18:19	4° $\approx$ 48'38	
retrograde	-3362 Jul 19 j 16:57	9° $\approx$ 09'44		opposition	-3356 Dec 17 j 12:24	1° $\approx$ 24'02	0°-16'-23
opposition	-3362 Sep 24 j 22:30	5° $\approx$ 38'16	-2°-57'-53	min. Earth dist.	-3356 Dec 17 j 00:54	1° $\approx$ 26'21	8.30720 AU
min. Earth dist.	-3362 Sep 24 j 13:55	5° $\approx$ 40'04	7.89262 AU		-3355 Jan 04 j 09:36	30° $\approx$	
direct	-3362 Nov 29 j 18:10	2° $\approx$ 10'08		direct	-3355 Feb 24 j 05:30	27° $\approx$ 55'15	
evening set	-3361 Mar 13 j 15:32	10° $\approx$ 31'42			-3355 Apr 15 j 06:52	0° $\approx$	
				asc. node	-3355 May 18 j 20:22	3° $\approx$ 14'05	
conjunction	-3361 Mar 31 j 14:23	12° $\approx$ 54'00	-2°-21'-4	evening set	-3355 Jun 10 j 11:08	5° $\approx$ 53'34	
minimum elong	-3361 Mar 31 j 14:25	12° $\approx$ 54'01	2°21'07				
max. Earth dist.	-3361 Apr 01 j 02:43	12° $\approx$ 58'06	9.87991 AU	conjunction	-3355 Jun 28 j 09:11	8° $\approx$ 07'11	0°03'34
morning rise	-3361 Apr 18 j 15:54	15° $\approx$ 17'10		minimum elong	-3355 Jun 28 j 09:11	8° $\approx$ 07'11	0°03'40
retrograde	-3361 Aug 03 j 19:54	23° $\approx$ 53'06		behind sun begin	-3355 Jun 28 j 01:59	8° $\approx$ 04'57	
opposition	-3361 Oct 09 j 15:23	20° $\approx$ 21'55	-2°-52'-50	behind sun end	-3355 Jun 28 j 16:22	8° $\approx$ 09'25	
min. Earth dist.	-3361 Oct 09 j 05:11	20° $\approx$ 24'03	7.88039 AU	max. Earth dist.	-3355 Jun 28 j 22:32	8° $\approx$ 11'21	10.38040 AU
direct	-3361 Dec 14 j 14:02	16° $\approx$ 52'54		morning rise	-3355 Jul 16 j 02:32	10° $\approx$ 19'21	
evening set	-3360 Mar 28 j 06:54	25° $\approx$ 17'39		retrograde	-3355 Oct 24 j 17:16	17° $\approx$ 52'34	
				opposition	-3355 Dec 30 j 18:14	14° $\approx$ 29'42	0°23'55
conjunction	-3360 Apr 15 j 08:36	27° $\approx$ 40'36	-2°-12'-28	min. Earth dist.	-3355 Dec 30 j 08:38	14° $\approx$ 31'37	8.45309 AU
minimum elong	-3360 Apr 15 j 08:39	27° $\approx$ 40'37	2°12'29	direct	-3354 Mar 10 j 03:03	11° $\approx$ 01'50	
max. Earth dist.	-3360 Apr 15 j 22:54	27° $\approx$ 45'21	9.88582 AU	evening set	-3354 Jun 24 j 04:43	18° $\approx$ 50'22	
	-3360 May 02 j 23:30	0° $\approx$					
morning rise	-3360 May 03 j 11:45	0° $\approx$ 03'59		conjunction	-3354 Jul 11 j 22:10	21° $\approx$ 00'33	0°35'20
retrograde	-3360 Aug 17 j 18:16	8° $\approx$ 34'57		minimum elong	-3354 Jul 11 j 22:08	21° $\approx$ 00'32	0°35'27
opposition	-3360 Oct 23 j 06:50	5° $\approx$ 04'31	-2°-36'-25	max. Earth dist.	-3354 Jul 12 j 08:56	21° $\approx$ 03'52	10.52842 AU
min. Earth dist.	-3360 Oct 22 j 19:37	5° $\approx$ 06'52	7.90417 AU	morning rise	-3354 Jul 29 j 10:23	23° $\approx$ 09'08	
direct	-3360 Dec 28 j 12:35	1° $\approx$ 34'54			-3354 Oct 13 j 07:04	0° $\approx$	
evening set	-3359 Apr 12 j 21:45	9° $\approx$ 59'36		retrograde	-3354 Nov 06 j 06:42	0° $\approx$ 30'48	
					-3354 Nov 30 j 08:59	30° $\approx$	
conjunction	-3359 May 01 j 01:24	12° $\approx$ 22'19	-1°-55'-17	opposition	-3353 Jan 12 j 16:14	27° $\approx$ 09'37	1°01'38
minimum elong	-3359 May 01 j 01:28	12° $\approx$ 22'20	1°55'18	min. Earth dist.	-3353 Jan 12 j 09:17	27° $\approx$ 10'59	8.60150 AU
max. Earth dist.	-3359 May 01 j 16:58	12° $\approx$ 27'27	9.92821 AU	direct	-3353 Mar 23 j 15:28	23° $\approx$ 42'49	
morning rise	-3359 May 19 j 05:14	14° $\approx$ 45'00			-3353 Jun 25 j 17:58	0° $\approx$	
retrograde	-3359 Sep 01 j 09:20	23° $\approx$ 07'31		evening set	-3353 Jul 07 j 09:58	1° $\approx$ 21'37	
opposition	-3359 Nov 06 j 18:21	19° $\approx$ 38'11	-2°-10'-4				
min. Earth dist.	-3359 Nov 06 j 06:33	19° $\approx$ 40'39	7.96347 AU	conjunction	-3353 Jul 24 j 22:04	3° $\approx$ 28'19	1°04'32
direct	-3358 Jan 12 j 11:10	16° $\approx$ 08'17		minimum elong	-3353 Jul 24 j 22:01	3° $\approx$ 28'18	1°04'40
evening set	-3358 Apr 28 j 08:39	24° $\approx$ 29'46		max. Earth dist.	-3353 Jul 25 j 05:13	3° $\approx$ 30'29	10.67493 AU
				morning rise	-3353 Aug 11 j 04:56	5° $\approx$ 33'25	
conjunction	-3358 May 16 j 13:04	26° $\approx$ 51'20	-1°-31'-2	retrograde	-3353 Nov 18 j 08:59	12° $\approx$ 45'02	
minimum elong	-3358 May 16 j 13:07	26° $\approx$ 51'21	1°31'00	opposition	-3352 Jan 25 j 06:53	9° $\approx$ 25'23	1°35'14
max. Earth dist.	-3358 May 17 j 05:01	26° $\approx$ 56'33	10.00485 AU	min. Earth dist.	-3352 Jan 25 j 02:29	9° $\approx$ 26'14	8.74525 AU
morning rise	-3358 Jun 03 j 16:17	29° $\approx$ 12'25		direct	-3352 Apr 04 j 21:06	5° $\approx$ 59'46	
	-3358 Jun 09 j 22:31	0° $\approx$		evening set	-3352 Jul 19 j 03:33	13° $\approx$ 29'19	
retrograde	-3358 Sep 15 j 15:11	7° $\approx$ 23'49					
opposition	-3358 Nov 20 j 23:50	3° $\approx$ 55'53	-1°-36'-4	conjunction	-3352 Aug 05 j 10:10	15° $\approx$ 32'42	1°30'02
min. Earth dist.	-3358 Nov 20 j 11:42	3° $\approx$ 58'24	8.05466 AU	minimum elong	-3352 Aug 05 j 10:06	15° $\approx$ 32'41	1°30'09
direct	-3357 Jan 27 j 07:06	0° $\approx$ 26'02		max. Earth dist.	-3352 Aug 05 j 13:36	15° $\approx$ 33'43	10.81336 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 5

Attention, astronomical year style is used: The year -3352 in astronomical counting style is the year 3353 BCE in historical counting style.

morning rise	-3352 Aug 22 j 11:45	17° <del>33</del> 34'33		morning rise	-3346 Oct 28 j 02:35	24° <del>17</del> 46'33	
retrograde	-3352 Nov 29 j 06:17	24° <del>33</del> 37'49			-3346 Dec 21 j 19:19	0° <del>1</del>	
opposition	-3351 Feb 05 j 14:51	21° <del>33</del> 19'27	2°03'39	retrograde	-3345 Feb 05 j 00:10	1° <del>1</del> 36'32	
min. Earth dist.	-3351 Feb 05 j 12:23	21° <del>33</del> 19'55	8.87804 AU		-3345 Mar 23 j 18:24	30° <del>18</del>	
direct	-3351 Apr 17 j 16:56	17° <del>33</del> 55'08		opposition	-3345 Apr 16 j 16:23	28° <del>17</del> 20'27	2°43'25
evening set	-3351 Jul 31 j 10:23	25° <del>33</del> 16'11		min. Earth dist.	-3345 Apr 17 j 03:07	28° <del>17</del> 18'30	9.21568 AU
				direct	-3345 Jun 27 j 03:37	25° <del>17</del> 02'17	
conjunction	-3351 Aug 17 j 11:51	27° <del>33</del> 16'37	1°51'04		-3345 Sep 18 j 14:07	0° <del>1</del>	
minimum elong	-3351 Aug 17 j 11:48	27° <del>33</del> 16'36	1°51'11	evening set	-3345 Oct 06 j 07:59	1° <del>1</del> 56'56	
max. Earth dist.	-3351 Aug 17 j 12:34	27° <del>33</del> 16'50	10.93798 AU				
morning rise	-3351 Sep 03 j 08:27	29° <del>33</del> 15'38		conjunction	-3345 Oct 22 j 17:16	3° <del>1</del> 50'27	2°08'34
	-3351 Sep 09 j 19:07	0° <del>1</del>		minimum elong	-3345 Oct 22 j 17:19	3° <del>1</del> 50'28	2°08'33
retrograde	-3351 Dec 10 j 22:06	6° <del>1</del> 12'17		max. Earth dist.	-3345 Oct 22 j 03:42	3° <del>1</del> 46'30	11.19823 AU
opposition	-3350 Feb 17 j 17:29	2° <del>1</del> 55'00	2°26'11	morning rise	-3345 Nov 08 j 02:03	5° <del>1</del> 43'52	
min. Earth dist.	-3350 Feb 17 j 17:13	2° <del>1</del> 55'04	8.99447 AU	retrograde	-3344 Feb 16 j 15:07	12° <del>1</del> 37'32	
	-3350 Apr 05 j 18:53	30° <del>18</del>		opposition	-3344 Apr 27 j 12:15	9° <del>1</del> 20'46	2°28'11
direct	-3350 Apr 30 j 03:36	29° <del>18</del> 32'00		min. Earth dist.	-3344 Apr 28 j 00:56	9° <del>1</del> 18'28	9.17726 AU
	-3350 May 24 j 08:47	0° <del>1</del>		direct	-3344 Jul 07 j 16:09	6° <del>1</del> 02'56	
evening set	-3350 Aug 12 j 08:00	6° <del>1</del> 45'33		evening set	-3344 Oct 16 j 08:09	12° <del>1</del> 57'57	
conjunction	-3350 Aug 29 j 04:43	8° <del>1</del> 43'28	2°07'10	conjunction	-3344 Nov 01 j 17:58	14° <del>1</del> 52'17	1°53'37
minimum elong	-3350 Aug 29 j 04:41	8° <del>1</del> 43'27	2°07'15	minimum elong	-3344 Nov 01 j 18:01	14° <del>1</del> 52'18	1°53'34
max. Earth dist.	-3350 Aug 29 j 03:03	8° <del>1</del> 42'59	11.04398 AU	max. Earth dist.	-3344 Nov 01 j 02:59	14° <del>1</del> 47'54	11.14659 AU
morning rise	-3350 Sep 14 j 20:50	10° <del>1</del> 40'06		morning rise	-3344 Nov 18 j 04:16	16° <del>1</del> 46'48	
	-3350 Oct 27 j 03:26	15° <del>1</del>		retrograde	-3343 Feb 27 j 09:31	23° <del>1</del> 45'46	
retrograde	-3350 Dec 22 j 10:25	17° <del>1</del> 31'58		opposition	-3343 May 09 j 10:53	20° <del>1</del> 28'01	2°07'17
	-3349 Feb 19 j 14:47	15° <del>18</del>		min. Earth dist.	-3343 May 10 j 00:19	20° <del>1</del> 25'33	9.11170 AU
opposition	-3349 Mar 01 j 16:01	14° <del>1</del> 15'32	2°42'27	direct	-3343 Jul 19 j 05:24	17° <del>1</del> 10'15	
min. Earth dist.	-3349 Mar 01 j 18:40	14° <del>1</del> 15'03	9.09031 AU	evening set	-3343 Oct 27 j 10:56	24° <del>1</del> 07'10	
direct	-3349 May 12 j 07:58	10° <del>1</del> 53'47					
	-3349 Jul 26 j 18:59	15° <del>1</del>		conjunction	-3343 Nov 12 j 22:14	26° <del>1</del> 02'51	1°34'10
evening set	-3349 Aug 23 j 21:51	18° <del>1</del> 01'00		minimum elong	-3343 Nov 12 j 22:17	26° <del>1</del> 02'51	1°34'07
				max. Earth dist.	-3343 Nov 12 j 07:17	25° <del>1</del> 58'26	11.06859 AU
conjunction	-3349 Sep 09 j 14:23	19° <del>1</del> 56'53	2°18'02	morning rise	-3343 Nov 29 j 10:43	27° <del>1</del> 58'58	
minimum elong	-3349 Sep 09 j 14:22	19° <del>1</del> 56'53	2°18'06		-3343 Dec 17 j 12:35	0° <del>18</del>	
max. Earth dist.	-3349 Sep 09 j 09:25	19° <del>1</del> 55'27	11.12776 AU	retrograde	-3342 Mar 11 j 12:45	5° <del>18</del> 04'54	
morning rise	-3349 Sep 26 j 03:04	21° <del>1</del> 51'43		opposition	-3342 May 21 j 13:51	1° <del>18</del> 45'53	1°41'09
retrograde	-3348 Jan 02 j 19:03	28° <del>1</del> 40'32		min. Earth dist.	-3342 May 22 j 02:58	1° <del>18</del> 43'27	9.02055 AU
opposition	-3348 Mar 12 j 11:35	25° <del>1</del> 23'39	2°52'17		-3342 Jun 15 j 19:36	30° <del>18</del>	
min. Earth dist.	-3348 Mar 12 j 17:17	25° <del>1</del> 23'36	9.16237 AU	direct	-3342 Jul 30 j 22:03	28° <del>1</del> 27'56	
direct	-3348 May 23 j 05:42	22° <del>1</del> 04'03			-3342 Sep 12 j 10:07	0° <del>18</del>	
evening set	-3348 Sep 03 j 05:23	29° <del>1</del> 06'09		evening set	-3342 Nov 07 j 18:15	5° <del>18</del> 28'17	
	-3348 Sep 11 j 01:29	0° <del>17</del>					
				conjunction	-3342 Nov 24 j 07:40	7° <del>18</del> 25'50	1°10'43
conjunction	-3348 Sep 19 j 18:37	1° <del>17</del> 00'34	2°23'34	minimum elong	-3342 Nov 24 j 07:42	7° <del>18</del> 25'50	1°10'39
minimum elong	-3348 Sep 19 j 18:36	1° <del>17</del> 00'34	2°23'38	max. Earth dist.	-3342 Nov 23 j 16:29	7° <del>18</del> 21'18	10.96611 AU
max. Earth dist.	-3348 Sep 19 j 10:21	0° <del>17</del> 58'10	11.18661 AU	morning rise	-3342 Dec 10 j 23:05	9° <del>18</del> 24'05	
morning rise	-3348 Oct 06 j 04:55	2° <del>17</del> 54'10			-3341 Feb 06 j 06:32	15° <del>18</del>	
retrograde	-3347 Jan 13 j 02:40	9° <del>17</del> 41'42		retrograde	-3341 Mar 23 j 23:26	16° <del>18</del> 38'34	
opposition	-3347 Mar 24 j 05:16	6° <del>17</del> 26'04	2°55'40		-3341 May 09 j 23:01	15° <del>18</del>	
min. Earth dist.	-3347 Mar 24 j 12:50	6° <del>17</del> 24'40	9.20814 AU	opposition	-3341 Jun 02 j 22:12	13° <del>18</del> 18'05	1°10'24
direct	-3347 Jun 04 j 00:35	3° <del>17</del> 06'27		min. Earth dist.	-3341 Jun 03 j 11:14	13° <del>18</del> 15'40	8.90633 AU
evening set	-3347 Sep 14 j 08:24	10° <del>17</del> 04'44		direct	-3341 Aug 11 j 15:48	9° <del>18</del> 59'43	
					-3341 Nov 01 j 00:14	15° <del>18</del>	
conjunction	-3347 Sep 30 j 19:26	11° <del>17</del> 58'17	2°23'45	evening set	-3341 Nov 19 j 08:23	17° <del>18</del> 05'15	
minimum elong	-3347 Sep 30 j 19:27	11° <del>17</del> 58'17	2°23'48	max. Earth dist.	-3341 Dec 05 j 08:37	19° <del>18</del> 00'20	10.84242 AU
max. Earth dist.	-3347 Sep 30 j 09:33	11° <del>17</del> 55'25	11.21848 AU				
morning rise	-3347 Oct 17 j 04:08	13° <del>17</del> 51'13		conjunction	-3341 Dec 06 j 00:23	19° <del>18</del> 05'05	0°43'53
retrograde	-3346 Jan 24 j 13:02	20° <del>17</del> 39'08		minimum elong	-3341 Dec 06 j 00:25	19° <del>18</del> 05'06	0°43'48
opposition	-3346 Apr 04 j 22:21	17° <del>17</del> 23'26	2°52'39	morning rise	-3341 Dec 22 j 19:30	21° <del>18</del> 05'56	
min. Earth dist.	-3346 Apr 05 j 07:19	17° <del>17</del> 21'48	9.22607 AU	retrograde	-3340 Apr 04 j 17:15	28° <del>18</del> 30'29	
direct	-3346 Jun 15 j 15:40	14° <del>17</del> 04'39		opposition	-3340 Jun 14 j 12:48	25° <del>18</del> 08'23	0°35'49
evening set	-3346 Sep 25 j 08:42	21° <del>17</del> 00'25		min. Earth dist.	-3340 Jun 15 j 01:41	25° <del>18</del> 05'57	8.77333 AU
				direct	-3340 Aug 22 j 16:00	21° <del>18</del> 49'16	
conjunction	-3346 Oct 11 j 18:28	22° <del>17</del> 53'41	2°18'42	evening set	-3340 Nov 30 j 07:01	29° <del>18</del> 01'40	
minimum elong	-3346 Oct 11 j 18:29	22° <del>17</del> 53'41	2°18'44		-3340 Dec 08 j 08:08	0° <del>18</del>	
max. Earth dist.	-3346 Oct 11 j 07:14	22° <del>17</del> 50'25	11.22239 AU	max. Earth dist.	-3340 Dec 16 j 11:08	0° <del>18</del> 59'37	10.70261 AU

# Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 6

Attention, astronomical year style is used: The year -3340 in astronomical counting style is the year 3341 BCE in historical counting style.

conjunction	-3340 Dec 17 j 02:10	1°♂04'13	0°14'29	direct	-3334 Nov 08 j 19:38	11°≈03'45	
minimum elong	-3340 Dec 17 j 02:11	1°♂04'13	0°14'24		-3333 Jan 14 j 21:37	15°≈	
behind sun begin	-3340 Dec 16 j 22:50	1°♂03'13		evening set	-3333 Feb 19 j 10:06	19°≈16'00	
behind sun end	-3340 Dec 17 j 05:31	1°♂05'14					
morning rise	-3339 Jan 03 j 01:17	3°♂08'01		conjunction	-3333 Mar 09 j 03:45	21°≈36'08	-2°-17'-5
retrograde	-3339 Apr 17 j 21:48	10°♂43'53		minimum elong	-3333 Mar 09 j 03:43	21°≈36'08	2°17'11
desc. node	-3339 Jun 12 j 20:13	8°♂25'42		max. Earth dist.	-3333 Mar 09 j 09:08	21°≈37'55	9.92270 AU
opposition	-3339 Jun 27 j 10:46	7°♂20'00	0°-1'-28	morning rise	-3333 Mar 27 j 01:47	23°≈57'42	
min. Earth dist.	-3339 Jun 27 j 22:32	7°♂17'46	8.62751 AU		-3333 May 19 j 10:15	0°♂	
direct	-3339 Sep 03 j 23:28	3°♂59'55		retrograde	-3333 Jul 13 j 00:19	2°♂34'23	
evening set	-3339 Dec 12 j 15:49	11°♂20'39			-3333 Sep 06 j 19:38	30°R≈	
				opposition	-3333 Sep 18 j 11:41	29°≈02'26	-2°-56'-21
conjunction	-3339 Dec 29 j 14:33	13°♂26'10	0°-16'-26	min. Earth dist.	-3333 Sep 18 j 05:52	29°≈03'39	7.89512 AU
minimum elong	-3339 Dec 29 j 14:32	13°♂26'10	0°16'34	direct	-3333 Nov 23 j 08:31	25°≈34'13	
max. Earth dist.	-3339 Dec 29 j 02:14	13°♂22'21	10.55300 AU		-3332 Feb 02 j 20:53	0°♂	
morning rise	-3338 Jan 15 j 17:43	15°♂33'09		evening set	-3332 Mar 05 j 18:52	3°♂53'57	
retrograde	-3338 May 01 j 12:28	23°♂21'14					
opposition	-3338 Jul 10 j 16:35	19°♂55'30	0°-40'00	conjunction	-3332 Mar 23 j 16:10	6°♂15'54	-2°-21'-59
min. Earth dist.	-3338 Jul 11 j 01:46	19°♂53'44	8.47570 AU	minimum elong	-3332 Mar 23 j 16:10	6°♂15'54	2°22'04
direct	-3338 Sep 16 j 14:10	16°♂34'15		max. Earth dist.	-3332 Mar 24 j 01:49	6°♂19'06	9.87263 AU
evening set	-3338 Dec 25 j 12:42	24°♂04'36		morning rise	-3332 Apr 10 j 16:50	8°♂38'54	
				retrograde	-3332 Jul 27 j 03:34	17°♂16'39	
conjunction	-3337 Jan 11 j 15:11	26°♂13'17	0°-47'-26	opposition	-3332 Oct 02 j 04:50	13°♂44'41	-2°-56'-49
minimum elong	-3337 Jan 11 j 15:09	26°♂13'16	0°47'34	min. Earth dist.	-3332 Oct 01 j 20:06	13°♂46'31	7.86385 AU
max. Earth dist.	-3337 Jan 11 j 05:58	26°♂10'22	10.40074 AU	direct	-3332 Dec 07 j 02:50	10°♂15'26	
morning rise	-3337 Jan 28 j 22:27	28°♂23'34		evening set	-3331 Mar 21 j 09:05	18°♂39'49	
	-3337 Feb 11 j 05:14	0°♂					
retrograde	-3337 May 15 j 13:14	6°♂24'07		conjunction	-3331 Apr 08 j 09:39	21°♂02'49	-2°-17'-40
opposition	-3337 Jul 24 j 06:22	2°♂56'36	-1°-17'-55	minimum elong	-3331 Apr 08 j 09:41	21°♂02'49	2°17'43
min. Earth dist.	-3337 Jul 24 j 12:21	2°♂55'25	8.32539 AU	max. Earth dist.	-3331 Apr 08 j 23:04	21°♂07'17	9.86043 AU
	-3337 Sep 07 j 14:19	30°R♂		morning rise	-3331 Apr 26 j 12:18	23°♂26'27	
direct	-3337 Sep 29 j 13:46	29°♂34'00			-3331 Jun 24 j 18:53	0°♀	
	-3337 Oct 21 j 06:15	0°♂		retrograde	-3331 Aug 11 j 04:18	2°♀01'03	
evening set	-3336 Jan 07 j 22:39	7°♂14'56			-3331 Sep 28 j 08:12	30°R♂	
				opposition	-3331 Oct 16 j 21:31	28°♂29'33	-2°-45'-35
conjunction	-3336 Jan 25 j 04:54	9°♂26'49	-1°-16'-53	min. Earth dist.	-3331 Oct 16 j 10:14	28°♂31'55	7.87086 AU
minimum elong	-3336 Jan 25 j 04:51	9°♂26'48	1°17'02	direct	-3331 Dec 22 j 00:14	24°♂59'34	
max. Earth dist.	-3336 Jan 24 j 22:46	9°♂24'51	10.25360 AU		-3330 Mar 09 j 05:58	0°♀	
morning rise	-3336 Feb 11 j 16:14	11°♂40'23		evening set	-3330 Apr 06 j 00:52	3°♀25'20	
retrograde	-3336 May 29 j 00:27	19°♂52'58					
opposition	-3336 Aug 06 j 04:10	16°♂23'50	-1°-52'-58	conjunction	-3330 Apr 24 j 03:59	5°♀48'31	-2°-4'-21
min. Earth dist.	-3336 Aug 06 j 07:02	16°♂23'16	8.18444 AU	minimum elong	-3330 Apr 24 j 04:02	5°♀48'32	2°04'22
direct	-3336 Oct 11 j 21:46	12°♂59'48		max. Earth dist.	-3330 Apr 24 j 20:17	5°♀53'56	9.88703 AU
evening set	-3335 Jan 20 j 21:58	20°♂51'45		morning rise	-3330 May 12 j 07:43	8°♀11'52	
				retrograde	-3330 Aug 25 j 23:55	16°♀39'27	
conjunction	-3335 Feb 07 j 07:56	23°♂06'42	-1°-42'-56	opposition	-3330 Oct 31 j 11:19	13°♀08'54	-2°-23'-35
minimum elong	-3335 Feb 07 j 07:53	23°♂06'41	1°43'04	min. Earth dist.	-3330 Oct 30 j 22:20	13°♀11'37	7.91564 AU
max. Earth dist.	-3335 Feb 07 j 05:06	23°♂05'46	10.11963 AU	direct	-3329 Jan 05 j 22:50	9°♀38'33	
morning rise	-3335 Feb 24 j 23:09	25°♂23'21		evening set	-3329 Apr 21 j 14:23	18°♀02'25	
	-3335 Apr 05 j 13:07	0°≈					
retrograde	-3335 Jun 12 j 19:42	3°≈46'39		conjunction	-3329 May 09 j 18:52	20°♀24'51	-1°-43'-9
opposition	-3335 Aug 20 j 09:17	0°≈16'12	-2°-22'-40	minimum elong	-3329 May 09 j 18:56	20°♀24'52	1°43'08
min. Earth dist.	-3335 Aug 20 j 09:12	0°≈16'13	8.06087 AU	max. Earth dist.	-3329 May 10 j 12:45	20°♀30'44	9.95040 AU
	-3335 Aug 23 j 16:51	30°R♂		morning rise	-3329 May 27 j 22:29	22°♀46'59	
direct	-3335 Oct 25 j 15:41	26°♂50'40			-3329 Aug 06 j 09:34	0°♂	
	-3335 Dec 24 j 08:09	0°≈		retrograde	-3329 Sep 09 j 11:22	1°♂04'25	
evening set	-3334 Feb 04 j 10:17	4°≈53'21			-3329 Oct 13 j 18:00	30°R♀	
				opposition	-3329 Nov 14 j 20:02	27°♀35'15	-1°-52'-46
conjunction	-3334 Feb 22 j 00:04	7°≈11'06	-2°-3'-36	min. Earth dist.	-3329 Nov 14 j 06:35	27°♀38'03	7.99510 AU
minimum elong	-3334 Feb 22 j 00:01	7°≈11'05	2°03'44	direct	-3328 Jan 20 j 19:52	24°♀04'55	
max. Earth dist.	-3334 Feb 22 j 01:06	7°≈11'26	10.00693 AU		-3328 Apr 16 j 09:49	0°♂	
morning rise	-3334 Mar 11 j 18:54	9°≈30'29		evening set	-3328 May 05 j 21:54	2°♂23'59	
	-3334 Apr 28 j 17:32	15°≈					
retrograde	-3334 Jun 27 j 20:31	18°≈02'07		conjunction	-3328 May 24 j 02:19	4°♂44'45	-1°-15'-51
	-3334 Aug 28 j 21:50	15°R≈		minimum elong	-3328 May 24 j 02:22	4°♂44'46	1°15'49
opposition	-3334 Sep 03 j 20:22	14°≈30'42	-2°-44'-30	max. Earth dist.	-3328 May 24 j 20:18	4°♂50'35	10.04618 AU
min. Earth dist.	-3334 Sep 03 j 17:32	14°≈31'17	7.96232 AU	morning rise	-3328 Jun 11 j 04:33	7°♂04'47	



Attention, astronomical year style is used: The year -3328 in astronomical counting style is the year 3329 BCE in historical counting style.

	-3328 Sep 09 j 03:40	15°♄		morning rise	-3322 Aug 29 j 10:22	24°♄14'48	
retrograde	-3328 Sep 22 j 12:45	15°♄10'06			-3322 Oct 28 j 19:19	0°♄	
	-3328 Oct 05 j 20:37	15°♄		retrograde	-3322 Dec 06 j 02:48	1°♄14'23	
opposition	-3328 Nov 27 j 22:13	11°♄42'39	-1°-15'-44		-3321 Jan 14 j 09:01	30°♄	
min. Earth dist.	-3328 Nov 27 j 09:13	11°♄45'20	8.10401 AU	opposition	-3321 Feb 12 j 16:30	27°♄57'08	2°16'37
direct	-3327 Feb 03 j 13:21	8°♄12'42		min. Earth dist.	-3321 Feb 12 j 16:02	27°♄57'13	8.95069 AU
	-3327 May 09 j 09:48	15°♄		direct	-3321 Apr 24 j 21:13	24°♄34'00	
evening set	-3327 May 20 j 20:27	16°♄24'36			-3321 Jul 21 j 21:04	0°♄	
				evening set	-3321 Aug 07 j 10:00	1°♄51'01	
conjunction	-3327 Jun 07 j 23:17	18°♄42'55	0°-44'-38				
minimum elong	-3327 Jun 07 j 23:19	18°♄42'56	0°44'34	conjunction	-3321 Aug 24 j 08:41	3°♄50'00	2°00'27
max. Earth dist.	-3327 Jun 08 j 16:04	18°♄48'18	10.16793 AU	minimum elong	-3321 Aug 24 j 08:38	3°♄50'00	2°00'32
morning rise	-3327 Jun 25 j 22:51	21°♄00'09		max. Earth dist.	-3321 Aug 24 j 07:00	3°♄49'31	11.00500 AU
retrograde	-3327 Oct 06 j 02:13	28°♄52'29		morning rise	-3321 Sep 10 j 02:52	5°♄47'41	
opposition	-3327 Dec 11 j 16:40	25°♄26'56	0°-35'-24	retrograde	-3321 Dec 17 j 16:20	12°♄41'41	
min. Earth dist.	-3327 Dec 11 j 04:45	25°♄29'21	8.23532 AU	opposition	-3320 Feb 24 j 17:13	9°♄25'22	2°35'46
direct	-3326 Feb 18 j 00:35	21°♄57'42		min. Earth dist.	-3320 Feb 24 j 19:20	9°♄24'58	9.05557 AU
evening set	-3326 Jun 04 j 08:24	0°♄00'53		direct	-3320 May 06 j 06:42	6°♄03'28	
	-3326 Jun 04 j 05:33	0°♄		evening set	-3320 Aug 18 j 03:41	13°♄13'40	
					-3320 Sep 02 j 10:22	15°♄	
conjunction	-3326 Jun 22 j 08:11	2°♄16'09	0°-11'-44				
minimum elong	-3326 Jun 22 j 08:11	2°♄16'09	0°11'38	conjunction	-3320 Sep 03 j 22:01	15°♄10'26	2°13'42
behind sun begin	-3326 Jun 22 j 03:05	2°♄14'33		minimum elong	-3320 Sep 03 j 21:59	15°♄10'25	2°13'46
behind sun end	-3326 Jun 22 j 13:18	2°♄17'45		max. Earth dist.	-3320 Sep 03 j 17:23	15°♄09'04	11.09750 AU
max. Earth dist.	-3326 Jun 22 j 22:42	2°♄20'43	10.30787 AU	morning rise	-3320 Sep 20 j 12:17	17°♄06'02	
morning rise	-3326 Jul 10 j 03:53	4°♄30'04		retrograde	-3320 Dec 28 j 03:25	23°♄56'16	
retrograde	-3326 Oct 19 j 05:33	12°♄09'27		opposition	-3319 Mar 07 j 14:11	20°♄40'32	2°48'32
asc. node	-3326 Nov 03 j 17:31	11°♄56'17		min. Earth dist.	-3319 Mar 07 j 18:33	20°♄39'44	9.13616 AU
opposition	-3326 Dec 25 j 02:52	8°♄45'51	0°05'31	direct	-3319 May 18 j 07:28	17°♄19'46	
min. Earth dist.	-3326 Dec 24 j 16:12	8°♄47'59	8.38107 AU	evening set	-3319 Aug 29 j 14:26	24°♄24'21	
direct	-3325 Mar 04 j 03:38	5°♄17'38					
evening set	-3325 Jun 18 j 08:21	13°♄11'11		conjunction	-3319 Sep 15 j 05:14	26°♄19'26	2°21'39
				minimum elong	-3319 Sep 15 j 05:13	26°♄19'26	2°21'43
conjunction	-3325 Jul 06 j 03:58	15°♄23'04	0°20'55	max. Earth dist.	-3319 Sep 14 j 22:19	26°♄17'25	11.16475 AU
minimum elong	-3325 Jul 06 j 03:57	15°♄23'03	0°21'03	morning rise	-3319 Oct 01 j 16:24	28°♄13'33	
max. Earth dist.	-3325 Jul 06 j 15:55	15°♄26'46	10.45786 AU		-3319 Oct 17 j 17:54	0°♄	
morning rise	-3325 Jul 23 j 18:51	17°♄33'25		retrograde	-3318 Jan 08 j 12:40	5°♄01'45	
retrograde	-3325 Oct 31 j 23:11	25°♄00'40		opposition	-3318 Mar 19 j 09:04	1°♄46'18	2°54'50
opposition	-3324 Jan 07 j 05:03	21°♄38'56	0°44'44	min. Earth dist.	-3318 Mar 19 j 16:13	1°♄44'59	9.19042 AU
min. Earth dist.	-3324 Jan 06 j 19:36	21°♄40'48	8.53309 AU		-3318 Apr 13 j 20:53	30°♄	
direct	-3324 Mar 16 j 21:50	18°♄11'56		direct	-3318 May 30 j 03:56	28°♄26'27	
evening set	-3324 Jun 30 j 19:46	25°♄55'33			-3318 Jul 14 j 06:32	0°♄	
				evening set	-3318 Sep 09 j 19:50	5°♄26'39	
conjunction	-3324 Jul 18 j 10:28	28°♄03'54	0°51'32				
minimum elong	-3324 Jul 18 j 10:26	28°♄03'53	0°51'40	conjunction	-3318 Sep 26 j 07:48	7°♄20'36	2°24'14
max. Earth dist.	-3324 Jul 18 j 20:14	28°♄06'53	10.60981 AU	minimum elong	-3318 Sep 26 j 07:48	7°♄20'36	2°24'18
	-3324 Aug 03 j 08:21	0°♄		max. Earth dist.	-3318 Sep 25 j 21:48	7°♄17'42	11.20511 AU
morning rise	-3324 Aug 04 j 19:56	0°♄10'40		morning rise	-3318 Oct 12 j 17:02	9°♄13'49	
retrograde	-3324 Nov 12 j 07:50	7°♄27'05		retrograde	-3317 Jan 19 j 21:38	16°♄01'40	
opposition	-3323 Jan 18 j 23:30	4°♄07'04	1°20'26	opposition	-3317 Mar 31 j 02:52	12°♄46'08	2°54'42
min. Earth dist.	-3323 Jan 18 j 16:16	4°♄08'29	8.68349 AU	min. Earth dist.	-3317 Mar 31 j 12:49	12°♄44'19	9.21709 AU
direct	-3323 Mar 30 j 06:58	0°♄41'21		direct	-3317 Jun 10 j 20:19	9°♄27'00	
evening set	-3323 Jul 13 j 19:21	8°♄15'20		evening set	-3317 Sep 20 j 21:32	16°♄24'06	
conjunction	-3323 Jul 31 j 04:42	10°♄20'14	1°18'53	conjunction	-3317 Oct 07 j 07:40	18°♄17'30	2°21'32
minimum elong	-3323 Jul 31 j 04:39	10°♄20'14	1°19'00	minimum elong	-3317 Oct 07 j 07:41	18°♄17'30	2°21'35
max. Earth dist.	-3323 Jul 31 j 11:33	10°♄22'18	10.75611 AU	max. Earth dist.	-3317 Oct 06 j 19:00	18°♄13'49	11.21775 AU
morning rise	-3323 Aug 17 j 08:37	12°♄23'34		morning rise	-3317 Oct 23 j 16:06	20°♄10'26	
retrograde	-3323 Nov 24 j 09:31	19°♄30'41		retrograde	-3316 Jan 31 j 06:14	26°♄59'36	
opposition	-3322 Jan 31 j 10:54	16°♄12'12	1°51'20	opposition	-3316 Apr 10 j 20:28	23°♄43'36	2°48'15
min. Earth dist.	-3322 Jan 31 j 06:57	16°♄12'57	8.82489 AU	min. Earth dist.	-3316 Apr 11 j 08:05	23°♄41'29	9.21558 AU
direct	-3322 Apr 12 j 05:40	12°♄47'47		direct	-3316 Jun 21 j 10:42	20°♄24'56	
evening set	-3322 Jul 26 j 07:47	20°♄12'47		evening set	-3316 Sep 30 j 21:07	27°♄20'20	
conjunction	-3322 Aug 12 j 11:38	22°♄14'32	1°42'03	conjunction	-3316 Oct 17 j 06:37	29°♄13'46	2°13'40
minimum elong	-3322 Aug 12 j 11:35	22°♄14'31	1°42'10	minimum elong	-3316 Oct 17 j 06:38	29°♄13'46	2°13'40
max. Earth dist.	-3322 Aug 12 j 14:25	22°♄15'22	10.88981 AU	max. Earth dist.	-3316 Oct 16 j 16:58	29°♄09'48	11.20235 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 8

Attention, astronomical year style is used: The year -3316 in astronomical counting style is the year 3317 BCE in historical counting style.

	-3316 Oct 23 j 21:53	0°♂		minimum elong	-3310 Dec 24 j 09:09	8°♂08'16	0°02'42
morning rise	-3316 Nov 02 j 15:05	1°♂06'59		behind sun begin	-3310 Dec 24 j 02:06	8°♂06'07	
retrograde	-3315 Feb 10 j 20:31	7°♂59'07		behind sun end	-3310 Dec 24 j 16:12	8°♂10'25	
opposition	-3315 Apr 22 j 15:17	4°♂42'22	2°35'42	max. Earth dist.	-3310 Dec 23 j 20:30	8°♂04'22	10.61022 AU
min. Earth dist.	-3315 Apr 23 j 03:27	4°♂40'08	9.18590 AU	morning rise	-3309 Jan 10 j 10:27	10°♂13'53	
direct	-3315 Jul 03 j 00:38	1°♂24'00		retrograde	-3309 Apr 25 j 19:38	17°♂56'34	
evening set	-3315 Oct 11 j 20:37	8°♂19'04		opposition	-3309 Jul 05 j 03:44	14°♂31'17	0°-22'-45
				min. Earth dist.	-3309 Jul 05 j 12:49	14°♂29'32	8.53548 AU
conjunction	-3315 Oct 28 j 06:17	10°♂13'06	2°00'50	direct	-3309 Sep 11 j 07:26	11°♂10'15	
minimum elong	-3315 Oct 28 j 06:20	10°♂13'07	2°00'48	evening set	-3309 Dec 20 j 03:27	18°♂36'20	
max. Earth dist.	-3315 Oct 27 j 15:55	10°♂08'54	11.15932 AU				
morning rise	-3315 Nov 13 j 15:42	12°♂07'11		conjunction	-3308 Jan 06 j 04:05	20°♂43'37	0°-33'-40
retrograde	-3314 Feb 22 j 13:24	19°♂03'54		minimum elong	-3308 Jan 06 j 04:04	20°♂43'37	0°33'48
opposition	-3314 May 04 j 12:36	15°♂46'09	2°17'19	max. Earth dist.	-3308 Jan 05 j 17:19	20°♂40'15	10.46231 AU
min. Earth dist.	-3314 May 05 j 01:44	15°♂43'45	9.12909 AU	morning rise	-3308 Jan 23 j 09:37	22°♂52'29	
direct	-3314 Jul 14 j 11:45	12°♂27'53			-3308 Apr 07 j 21:47	0°♂	
evening set	-3314 Oct 22 j 22:00	19°♂24'10		retrograde	-3308 May 08 j 15:24	0°♂47'30	
					-3308 Jun 08 j 16:06	30°♂17'00	
conjunction	-3314 Nov 08 j 08:34	21°♂19'19	1°43'22	opposition	-3308 Jul 17 j 13:57	27°♂20'36	-1°-1'-11
minimum elong	-3314 Nov 08 j 08:37	21°♂19'19	1°43'19	min. Earth dist.	-3308 Jul 17 j 21:10	27°♂19'11	8.38765 AU
max. Earth dist.	-3314 Nov 07 j 16:47	21°♂14'40	11.09023 AU	direct	-3308 Sep 23 j 03:13	23°♂58'28	
morning rise	-3314 Nov 24 j 20:01	23°♂14'48			-3308 Dec 19 j 08:37	0°♂	
	-3313 Feb 15 j 08:23	0°♂		evening set	-3307 Jan 01 j 07:25	1°♂34'44	
retrograde	-3313 Mar 06 j 12:15	0°♂17'47					
	-3313 Mar 25 j 20:08	30°♂17'47		conjunction	-3307 Jan 18 j 11:50	3°♂45'12	-1°-4'-1
opposition	-3313 May 16 j 13:39	26°♂58'48	1°53'28	minimum elong	-3307 Jan 18 j 11:47	3°♂45'11	1°04'10
min. Earth dist.	-3313 May 17 j 03:40	26°♂56'13	9.04715 AU	max. Earth dist.	-3307 Jan 18 j 04:33	3°♂42'52	10.31606 AU
direct	-3313 Jul 26 j 02:44	23°♂40'22		morning rise	-3307 Feb 04 j 21:26	5°♂57'20	
	-3313 Oct 28 j 09:47	0°♂		retrograde	-3307 May 22 j 21:50	14°♂04'40	
evening set	-3313 Nov 03 j 02:58	0°♂39'26		opposition	-3307 Jul 31 j 08:27	10°♂36'17	-1°-37'-48
				min. Earth dist.	-3307 Jul 31 j 12:41	10°♂35'26	8.24569 AU
conjunction	-3313 Nov 19 j 15:19	2°♂36'14	1°21'39	direct	-3307 Oct 06 j 08:06	7°♂12'57	
minimum elong	-3313 Nov 19 j 15:22	2°♂36'14	1°21'35	evening set	-3306 Jan 15 j 00:41	15°♂00'02	
max. Earth dist.	-3313 Nov 18 j 23:04	2°♂31'24	10.99730 AU				
morning rise	-3313 Dec 06 j 05:35	4°♂33'38		conjunction	-3306 Feb 01 j 09:00	17°♂13'37	-1°-31'-49
retrograde	-3312 Mar 17 j 17:47	11°♂44'28		minimum elong	-3306 Feb 01 j 08:57	17°♂13'36	1°31'57
opposition	-3312 May 27 j 19:23	8°♂24'04	1°24'41	max. Earth dist.	-3306 Feb 01 j 06:04	17°♂12'40	10.17936 AU
min. Earth dist.	-3312 May 28 j 09:20	8°♂21'29	8.94270 AU	morning rise	-3306 Feb 18 j 22:27	19°♂28'54	
direct	-3312 Aug 05 j 20:09	5°♂05'17		retrograde	-3306 Jun 06 j 13:58	27°♂47'40	
evening set	-3312 Nov 13 j 13:40	12°♂08'45		opposition	-3306 Aug 14 j 10:40	24°♂18'00	-2°-10'-10
				min. Earth dist.	-3306 Aug 14 j 11:17	24°♂17'52	8.11755 AU
conjunction	-3312 Nov 30 j 04:33	14°♂07'39	0°56'14	direct	-3306 Oct 19 j 22:04	20°♂53'25	
minimum elong	-3312 Nov 30 j 04:35	14°♂07'39	0°56'09	evening set	-3305 Jan 29 j 07:37	28°♂51'22	
max. Earth dist.	-3312 Nov 29 j 13:32	14°♂03'08	10.88340 AU		-3305 Feb 07 j 04:02	0°♂	
	-3312 Dec 07 j 10:56	15°♂					
morning rise	-3312 Dec 16 j 22:00	16°♂07'25		conjunction	-3305 Feb 15 j 19:48	1°♂07'52	-1°-55'-6
retrograde	-3311 Mar 30 j 07:58	23°♂27'38		minimum elong	-3305 Feb 15 j 19:44	1°♂07'51	1°55'14
opposition	-3311 Jun 09 j 06:53	20°♂05'40	0°51'41	max. Earth dist.	-3305 Feb 15 j 21:20	1°♂08'22	10.06027 AU
min. Earth dist.	-3311 Jun 09 j 19:21	20°♂03'19	8.81927 AU	morning rise	-3305 Mar 05 j 12:52	3°♂26'00	
direct	-3311 Aug 17 j 18:23	16°♂46'20		retrograde	-3305 Jun 21 j 12:58	11°♂54'13	
evening set	-3311 Nov 25 j 08:05	23°♂55'48		opposition	-3305 Aug 28 j 19:23	8°♂23'34	-2°-35'-45
				min. Earth dist.	-3305 Aug 28 j 16:20	8°♂24'11	8.01096 AU
conjunction	-3311 Dec 12 j 01:57	25°♂57'14	0°27'52	direct	-3305 Nov 02 j 21:39	4°♂57'43	
minimum elong	-3311 Dec 12 j 01:58	25°♂57'14	0°27'47	evening set	-3304 Feb 13 j 02:54	13°♂05'44	
max. Earth dist.	-3311 Dec 11 j 12:13	25°♂53'03	10.75264 AU		-3304 Feb 27 j 15:48	15°♂	
morning rise	-3311 Dec 28 j 23:05	27°♂59'46					
	-3310 Jan 15 j 07:30	0°♂		conjunction	-3304 Mar 01 j 18:51	15°♂24'47	-2°-11'-57
retrograde	-3310 Apr 12 j 09:35	5°♂30'41		minimum elong	-3304 Mar 01 j 18:49	15°♂24'46	2°12'04
opposition	-3310 Jun 22 j 01:28	2°♂07'04	0°15'26	max. Earth dist.	-3304 Mar 02 j 00:25	15°♂26'37	9.96635 AU
min. Earth dist.	-3310 Jun 22 j 12:10	2°♂05'02	8.68161 AU	morning rise	-3304 Mar 19 j 15:15	17°♂45'18	
	-3310 Jul 22 j 04:57	30°♂		retrograde	-3304 Jul 05 j 16:31	26°♂20'00	
direct	-3310 Aug 29 j 21:30	28°♂47'00		opposition	-3304 Sep 11 j 09:17	22°♂48'44	-2°-52'-12
	-3310 Oct 06 j 12:48	0°♂		min. Earth dist.	-3304 Sep 11 j 03:09	22°♂50'00	7.93266 AU
desc. node	-3310 Nov 23 j 11:58	4°♂25'03		direct	-3304 Nov 16 j 05:55	19°♂21'40	
evening set	-3310 Dec 07 j 12:03	6°♂04'01		evening set	-3303 Feb 27 j 08:08	27°♂37'59	
conjunction	-3310 Dec 24 j 09:10	8°♂08'16	0°-2'-35	conjunction	-3303 Mar 17 j 03:42	29°♂59'03	-2°-20'-46

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 9

Attention, astronomical year style is used: The year -3303 in astronomical counting style is the year 3304 BCE in historical counting style.

minimum elong	-3303 Mar 17 j 03:41	29° <del>≈</del> 59'03	2°20'51			-3297 Jul 13 j 11:04	0° <del>Π</del>	
	-3303 Mar 17 j 06:33	0° <del>✕</del>		retrograde		-3297 Oct 13 j 23:50	6° <del>Π</del> 38'56	
max. Earth dist.	-3303 Mar 17 j 12:49	0° <del>✕</del> 02'05	9.90368 AU	opposition		-3297 Dec 19 j 16:29	3° <del>Π</del> 14'28	0°-12'-13
morning rise	-3303 Apr 04 j 03:02	2° <del>✕</del> 21'20		min. Earth dist.		-3297 Dec 19 j 05:16	3° <del>Π</del> 16'44	8.30979 AU
retrograde	-3303 Jul 20 j 21:20	10° <del>✕</del> 58'46				-3296 Feb 09 j 21:46	30° <del>R</del> <del>8</del>	
opposition	-3303 Sep 26 j 02:07	7° <del>✕</del> 27'18	-2°-57'-47	direct		-3296 Feb 26 j 08:36	29° <del>8</del> 45'45	
min. Earth dist.	-3303 Sep 25 j 17:46	7° <del>✕</del> 29'03	7.88748 AU			-3296 Mar 13 j 21:21	0° <del>Π</del>	
direct	-3303 Nov 30 j 21:09	3° <del>✕</del> 59'07		asc. node		-3296 Apr 11 j 02:27	1° <del>Π</del> 26'10	
evening set	-3302 Mar 14 j 20:27	12° <del>✕</del> 21'16		evening set		-3296 Jun 11 j 16:24	7° <del>Π</del> 44'02	
conjunction	-3302 Apr 01 j 19:25	14° <del>✕</del> 43'42	-2°-20'-34	conjunction		-3296 Jun 29 j 14:10	9° <del>Π</del> 57'35	0°06'55
minimum elong	-3302 Apr 01 j 19:26	14° <del>✕</del> 43'42	2°20'37	minimum elong		-3296 Jun 29 j 14:10	9° <del>Π</del> 57'35	0°07'01
max. Earth dist.	-3302 Apr 02 j 07:13	14° <del>✕</del> 47'38	9.87588 AU	behind sun begin		-3296 Jun 29 j 07:28	9° <del>Π</del> 55'30	
morning rise	-3302 Apr 19 j 21:10	17° <del>✕</del> 06'59		behind sun end		-3296 Jun 29 j 20:52	9° <del>Π</del> 59'39	
retrograde	-3302 Aug 05 j 00:23	25° <del>✕</del> 43'02		max. Earth dist.		-3296 Jun 30 j 03:35	10° <del>Π</del> 01'46	10.38336 AU
opposition	-3302 Oct 10 j 19:17	22° <del>✕</del> 11'52	-2°-51'-42	morning rise		-3296 Jul 17 j 07:12	12° <del>Π</del> 09'39	
min. Earth dist.	-3302 Oct 10 j 09:34	22° <del>✕</del> 13'55	7.87749 AU	retrograde		-3296 Oct 25 j 21:51	19° <del>Π</del> 42'37	
direct	-3302 Dec 15 j 17:32	18° <del>✕</del> 42'46		opposition		-3296 Dec 31 j 22:30	16° <del>Π</del> 19'53	0°28'00
evening set	-3301 Mar 30 j 12:07	27° <del>✕</del> 07'54		min. Earth dist.		-3296 Dec 31 j 13:30	16° <del>Π</del> 21'40	8.45644 AU
				direct		-3295 Mar 11 j 07:12	12° <del>Π</del> 52'04	
conjunction	-3301 Apr 17 j 13:58	29° <del>✕</del> 30'57	-2°-11'-8	evening set		-3295 Jun 25 j 09:41	20° <del>Π</del> 40'31	
minimum elong	-3301 Apr 17 j 14:01	29° <del>✕</del> 30'58	2°11'10					
max. Earth dist.	-3301 Apr 18 j 03:35	29° <del>✕</del> 35'28	9.88395 AU	conjunction		-3295 Jul 13 j 02:43	22° <del>Π</del> 50'34	0°38'33
	-3301 Apr 21 j 05:32	0° <del>Υ</del>		minimum elong		-3295 Jul 13 j 02:42	22° <del>Π</del> 50'33	0°38'41
morning rise	-3301 May 05 j 17:22	1° <del>Υ</del> 54'25		max. Earth dist.		-3295 Jul 13 j 12:52	22° <del>Π</del> 53'41	10.53208 AU
retrograde	-3301 Aug 19 j 22:59	10° <del>Υ</del> 25'16		morning rise		-3295 Jul 30 j 14:43	24° <del>Π</del> 59'03	
opposition	-3301 Oct 25 j 10:48	6° <del>Υ</del> 54'53	-2°-34'-18			-3295 Sep 16 j 00:04	0° <del>☾</del>	
min. Earth dist.	-3301 Oct 25 j 00:01	6° <del>Υ</del> 57'08	7.90308 AU	retrograde		-3295 Nov 07 j 09:02	2° <del>☾</del> 20'29	
direct	-3301 Dec 30 j 17:06	3° <del>Υ</del> 25'13				-3295 Dec 31 j 17:58	30° <del>R</del> <del>Π</del>	
evening set	-3300 Apr 14 j 03:09	11° <del>Υ</del> 50'10		opposition		-3294 Jan 13 j 20:28	28° <del>Π</del> 59'25	1°05'27
				min. Earth dist.		-3294 Jan 13 j 13:38	29° <del>Π</del> 00'45	8.60554 AU
conjunction	-3300 May 02 j 06:57	14° <del>Υ</del> 12'57	-1°-53'-14	direct		-3294 Mar 24 j 21:34	25° <del>Π</del> 32'40	
minimum elong	-3300 May 02 j 07:01	14° <del>Υ</del> 12'58	1°53'14			-3294 Jun 10 j 03:55	0° <del>☾</del>	
max. Earth dist.	-3300 May 02 j 22:00	14° <del>Υ</del> 17'55	9.92781 AU	evening set		-3294 Jul 08 j 14:41	3° <del>☾</del> 11'19	
morning rise	-3300 May 20 j 10:53	16° <del>Υ</del> 35'41						
retrograde	-3300 Sep 02 j 13:38	24° <del>Υ</del> 57'59		conjunction		-3294 Jul 26 j 02:23	5° <del>☾</del> 17'52	1°07'28
opposition	-3300 Nov 07 j 22:17	21° <del>Υ</del> 28'44	-2°-7'-5	minimum elong		-3294 Jul 26 j 02:21	5° <del>☾</del> 17'51	1°07'36
min. Earth dist.	-3300 Nov 07 j 10:26	21° <del>Υ</del> 31'12	7.96357 AU	max. Earth dist.		-3294 Jul 26 j 09:01	5° <del>☾</del> 19'52	10.67919 AU
direct	-3299 Jan 13 j 16:27	17° <del>Υ</del> 58'51		morning rise		-3294 Aug 12 j 08:59	7° <del>☾</del> 22'50	
evening set	-3299 Apr 29 j 13:59	26° <del>Υ</del> 20'29		retrograde		-3294 Nov 19 j 13:04	14° <del>☾</del> 34'14	
				opposition		-3293 Jan 26 j 10:58	11° <del>☾</del> 14'38	1°38'36
conjunction	-3299 May 17 j 18:32	28° <del>Υ</del> 42'04	-1°-28'-22	min. Earth dist.		-3293 Jan 26 j 05:59	11° <del>☾</del> 15'36	8.74975 AU
minimum elong	-3299 May 17 j 18:36	28° <del>Υ</del> 42'06	1°28'20	direct		-3293 Apr 07 j 02:02	7° <del>☾</del> 49'07	
max. Earth dist.	-3299 May 18 j 10:32	28° <del>Υ</del> 47'18	10.00550 AU	evening set		-3293 Jul 21 j 07:52	15° <del>☾</del> 18'24	
	-3299 May 27 j 17:38	0° <del>8</del>						
morning rise	-3299 Jun 04 j 21:43	1° <del>8</del> 03'10		conjunction		-3293 Aug 07 j 14:11	17° <del>☾</del> 21'38	1°32'33
retrograde	-3299 Sep 16 j 18:51	9° <del>8</del> 14'20		minimum elong		-3293 Aug 07 j 14:08	17° <del>☾</del> 21'38	1°32'40
opposition	-3299 Nov 22 j 03:48	5° <del>8</del> 46'30	-1°-32'-27	max. Earth dist.		-3293 Aug 07 j 18:07	17° <del>☾</del> 22'49	10.81802 AU
min. Earth dist.	-3299 Nov 21 j 15:12	5° <del>8</del> 49'07	8.05571 AU	morning rise		-3293 Aug 24 j 15:23	19° <del>☾</del> 23'21	
direct	-3298 Jan 28 j 12:38	2° <del>8</del> 16'43		retrograde		-3293 Dec 01 j 09:56	26° <del>☾</del> 26'24	
evening set	-3298 May 14 j 17:22	10° <del>8</del> 32'20		opposition		-3292 Feb 07 j 18:59	23° <del>☾</del> 08'04	2°06'25
				min. Earth dist.		-3292 Feb 07 j 15:56	23° <del>☾</del> 08'39	8.88283 AU
conjunction	-3298 Jun 01 j 21:11	12° <del>8</del> 51'53	0°-58'-35	direct		-3292 Apr 18 j 21:04	19° <del>☾</del> 43'51	
minimum elong	-3298 Jun 01 j 21:14	12° <del>8</del> 51'54	0°58'32	evening set		-3292 Aug 01 j 14:13	27° <del>☾</del> 04'32	
max. Earth dist.	-3298 Jun 02 j 13:22	12° <del>8</del> 57'06	10.11213 AU					
	-3298 Jun 18 j 12:57	15° <del>8</del>		conjunction		-3292 Aug 18 j 15:23	29° <del>☾</del> 04'49	1°53'05
morning rise	-3298 Jun 19 j 22:13	15° <del>8</del> 10'30		minimum elong		-3292 Aug 18 j 15:20	29° <del>☾</del> 04'48	1°53'11
retrograde	-3298 Sep 30 j 13:55	23° <del>8</del> 09'05		max. Earth dist.		-3292 Aug 18 j 17:02	29° <del>☾</del> 05'18	10.94284 AU
opposition	-3298 Dec 06 j 02:10	19° <del>8</del> 42'52	0°-53'-13			-3292 Aug 26 j 09:54	0° <del>Ω</del>	
min. Earth dist.	-3298 Dec 05 j 13:44	19° <del>8</del> 45'25	8.17357 AU	morning rise		-3292 Sep 04 j 11:32	1° <del>Ω</del> 03'41	
direct	-3297 Feb 12 j 02:33	16° <del>8</del> 13'29		retrograde		-3292 Dec 12 j 01:49	8° <del>Ω</del> 00'08	
evening set	-3297 May 29 j 10:42	24° <del>8</del> 21'03		opposition		-3291 Feb 18 j 21:34	4° <del>Ω</del> 42'52	2°28'17
				min. Earth dist.		-3291 Feb 18 j 21:28	4° <del>Ω</del> 42'54	8.99945 AU
conjunction	-3297 Jun 16 j 12:11	26° <del>8</del> 37'51	0°-26'-8	direct		-3291 May 01 j 08:04	1° <del>Ω</del> 19'55	
minimum elong	-3297 Jun 16 j 12:12	26° <del>8</del> 37'52	0°26'03	evening set		-3291 Aug 13 j 11:27	8° <del>Ω</del> 33'04	
max. Earth dist.	-3297 Jun 17 j 03:32	26° <del>8</del> 42'43	10.24069 AU					
morning rise	-3297 Jul 04 j 09:41	28° <del>8</del> 53'22		conjunction		-3291 Aug 30 j 07:47	10° <del>Ω</del> 30'50	2°08'36

# Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 10

Attention, astronomical year style is used: The year -3291 in astronomical counting style is the year 3292 BCE in historical counting style.

minimum elong	-3291 Aug 30 j 07:44	10° $\Omega$ 30'49	2°08'41	conjunction	-3285 Nov 03 j 18:59	16° $\Omega$ 34'56	1°51'37
max. Earth dist.	-3291 Aug 30 j 06:00	10° $\Omega$ 30'19	11.04895 AU	minimum elong	-3285 Nov 03 j 19:02	16° $\Omega$ 34'57	1°51'35
morning rise	-3291 Sep 15 j 23:39	12° $\Omega$ 27'20		max. Earth dist.	-3285 Nov 03 j 04:59	16° $\Omega$ 30'51	11.15008 AU
	-3291 Oct 09 j 05:49	15° $\Omega$		morning rise	-3285 Nov 20 j 05:21	18° $\Omega$ 29'26	
retrograde	-3291 Dec 23 j 12:54	19° $\Omega$ 18'57		retrograde	-3284 Feb 29 j 12:39	25° $\Omega$ 28'19	
opposition	-3290 Mar 02 j 19:50	16° $\Omega$ 02'32	2°43'50	opposition	-3284 May 10 j 13:03	22° $\Omega$ 10'33	2°04'35
min. Earth dist.	-3290 Mar 02 j 22:50	16° $\Omega$ 01'58	9.09537 AU	min. Earth dist.	-3284 May 11 j 01:35	22° $\Omega$ 08'15	9.11500 AU
	-3290 Mar 17 j 02:01	15° $\mathbb{R}$ $\Omega$		direct	-3284 Jul 20 j 08:30	18° $\Omega$ 52'52	
direct	-3290 May 13 j 11:08	12° $\Omega$ 40'49		evening set	-3284 Oct 28 j 11:35	25° $\Omega$ 49'24	
	-3290 Jul 07 j 23:09	15° $\Omega$					
evening set	-3290 Aug 25 j 00:51	19° $\Omega$ 47'36		conjunction	-3284 Nov 13 j 23:03	27° $\Omega$ 45'05	1°31'47
				minimum elong	-3284 Nov 13 j 23:06	27° $\Omega$ 45'06	1°31'43
conjunction	-3290 Sep 10 j 17:01	21° $\Omega$ 43'21	2°18'52	max. Earth dist.	-3284 Nov 13 j 08:39	27° $\Omega$ 40'50	11.07181 AU
minimum elong	-3290 Sep 10 j 17:00	21° $\Omega$ 43'21	2°18'56	morning rise	-3284 Nov 30 j 11:39	29° $\Omega$ 41'12	
max. Earth dist.	-3290 Sep 10 j 11:40	21° $\Omega$ 41'47	11.13276 AU		-3284 Dec 03 j 05:05	0° $\mathbb{M}$	
morning rise	-3290 Sep 27 j 05:34	23° $\Omega$ 38'04		retrograde	-3283 Mar 12 j 14:42	6° $\mathbb{M}$ 47'01	
	-3290 Dec 11 j 18:44	0° $\mathbb{M}$		opposition	-3283 May 22 j 15:45	3° $\mathbb{M}$ 28'01	1°38'01
retrograde	-3289 Jan 03 j 20:57	0° $\mathbb{M}$ 26'40		min. Earth dist.	-3283 May 23 j 04:31	3° $\mathbb{M}$ 25'40	9.02371 AU
	-3289 Jan 27 j 08:18	30° $\mathbb{R}$ $\Omega$		direct	-3283 Jul 31 j 22:07	0° $\mathbb{M}$ 10'10	
opposition	-3289 Mar 14 j 15:09	27° $\Omega$ 10'46	2°52'55	evening set	-3283 Nov 08 j 18:49	7° $\mathbb{M}$ 10'12	
min. Earth dist.	-3289 Mar 14 j 20:22	27° $\Omega$ 09'48	9.16733 AU				
direct	-3289 May 25 j 10:33	23° $\Omega$ 50'11		conjunction	-3283 Nov 25 j 08:16	9° $\mathbb{M}$ 07'42	1°08'01
	-3289 Aug 28 j 14:45	0° $\mathbb{M}$		minimum elong	-3283 Nov 25 j 08:18	9° $\mathbb{M}$ 07'43	1°07'57
evening set	-3289 Sep 05 j 07:47	0° $\mathbb{M}$ 51'49		max. Earth dist.	-3283 Nov 24 j 16:40	9° $\mathbb{M}$ 03'04	10.96936 AU
				morning rise	-3283 Dec 11 j 23:57	11° $\mathbb{M}$ 05'58	
conjunction	-3289 Sep 21 j 20:52	2° $\mathbb{M}$ 46'08	2°23'47		-3282 Jan 17 j 12:50	15° $\mathbb{M}$	
minimum elong	-3289 Sep 21 j 20:52	2° $\mathbb{M}$ 46'08	2°23'50	retrograde	-3282 Mar 24 j 23:45	18° $\mathbb{M}$ 20'21	
max. Earth dist.	-3289 Sep 21 j 13:20	2° $\mathbb{M}$ 43'57	11.19147 AU	opposition	-3282 Jun 03 j 23:52	14° $\mathbb{M}$ 59'53	1°06'56
morning rise	-3289 Oct 08 j 06:58	4° $\mathbb{M}$ 39'37			-3282 Jun 03 j 23:13	15° $\mathbb{R}$ $\mathbb{M}$	
retrograde	-3288 Jan 15 j 06:16	11° $\mathbb{M}$ 26'57		min. Earth dist.	-3282 Jun 04 j 13:17	14° $\mathbb{M}$ 57'23	8.90958 AU
opposition	-3288 Mar 25 j 08:36	8° $\mathbb{M}$ 11'16	2°55'33	direct	-3282 Aug 12 j 17:06	11° $\mathbb{M}$ 41'33	
min. Earth dist.	-3288 Mar 25 j 15:17	8° $\mathbb{M}$ 10'03	9.21285 AU		-3282 Oct 16 j 09:58	15° $\mathbb{M}$	
direct	-3288 Jun 05 j 04:35	4° $\mathbb{M}$ 51'43		evening set	-3282 Nov 20 j 08:46	18° $\mathbb{M}$ 46'47	
evening set	-3288 Sep 15 j 10:23	11° $\mathbb{M}$ 49'30		max. Earth dist.	-3282 Dec 06 j 09:07	20° $\mathbb{M}$ 41'52	10.84571 AU
conjunction	-3288 Oct 01 j 21:22	13° $\mathbb{M}$ 42'58	2°23'22	conjunction	-3282 Dec 07 j 00:52	20° $\mathbb{M}$ 46'37	0°40'58
minimum elong	-3288 Oct 01 j 21:22	13° $\mathbb{M}$ 42'58	2°23'25	minimum elong	-3282 Dec 07 j 00:54	20° $\mathbb{M}$ 46'37	0°40'54
max. Earth dist.	-3288 Oct 01 j 12:17	13° $\mathbb{M}$ 40'20	11.22308 AU	morning rise	-3282 Dec 23 j 20:12	22° $\mathbb{M}$ 47'28	
morning rise	-3288 Oct 18 j 05:54	15° $\mathbb{M}$ 35'49			-3281 Mar 22 j 04:52	0° $\mathbb{X}$	
retrograde	-3287 Jan 25 j 15:05	22° $\mathbb{M}$ 23'32		retrograde	-3281 Apr 06 j 18:43	0° $\mathbb{X}$ 11'55	
opposition	-3287 Apr 06 j 01:23	19° $\mathbb{M}$ 07'48	2°51'49		-3281 Apr 22 j 10:43	30° $\mathbb{R}$ $\mathbb{M}$	
min. Earth dist.	-3287 Apr 06 j 10:17	19° $\mathbb{M}$ 06'11	9.23048 AU	opposition	-3281 Jun 16 j 14:16	26° $\mathbb{M}$ 49'49	0°32'10
direct	-3287 Jun 16 j 17:34	15° $\mathbb{M}$ 49'04		min. Earth dist.	-3281 Jun 17 j 03:21	26° $\mathbb{M}$ 47'21	8.77646 AU
evening set	-3287 Sep 26 j 10:21	22° $\mathbb{M}$ 44'23		direct	-3281 Aug 24 j 17:33	23° $\mathbb{M}$ 30'46	
					-3281 Nov 26 j 06:26	0° $\mathbb{X}$	
conjunction	-3287 Oct 12 j 19:59	24° $\mathbb{M}$ 37'34	2°17'44	evening set	-3281 Dec 02 j 07:16	0° $\mathbb{X}$ 42'54	
minimum elong	-3287 Oct 12 j 20:00	24° $\mathbb{M}$ 37'34	2°17'45				
max. Earth dist.	-3287 Oct 12 j 08:25	24° $\mathbb{M}$ 34'13	11.22665 AU	conjunction	-3281 Dec 19 j 02:40	2° $\mathbb{X}$ 45'27	0°11'30
morning rise	-3287 Oct 29 j 04:11	26° $\mathbb{M}$ 30'24		minimum elong	-3281 Dec 19 j 02:40	2° $\mathbb{X}$ 45'27	0°11'25
	-3287 Dec 01 j 13:29	0° $\Omega$		behind sun begin	-3281 Dec 18 j 21:31	2° $\mathbb{X}$ 43'53	
retrograde	-3286 Feb 06 j 02:09	3° $\Omega$ 20'11		behind sun end	-3281 Dec 19 j 07:50	2° $\mathbb{X}$ 47'01	
opposition	-3286 Apr 17 j 19:08	0° $\Omega$ 04'05	2°41'53	max. Earth dist.	-3281 Dec 18 j 12:24	2° $\mathbb{X}$ 41'05	10.70547 AU
min. Earth dist.	-3286 Apr 18 j 06:20	0° $\Omega$ 02'03	9.21972 AU	morning rise	-3280 Jan 05 j 01:53	4° $\mathbb{X}$ 49'15	
	-3286 Apr 18 j 17:34	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-3280 Apr 18 j 22:33	12° $\mathbb{X}$ 25'04	
direct	-3286 Jun 28 j 06:15	26° $\mathbb{M}$ 45'57		desc. node	-3280 May 08 j 08:17	12° $\mathbb{X}$ 06'40	
	-3286 Sep 02 j 03:16	0° $\Omega$		opposition	-3280 Jun 28 j 11:55	9° $\mathbb{X}$ 01'13	0°-5'-9
evening set	-3286 Oct 07 j 09:14	3° $\Omega$ 40'12		min. Earth dist.	-3280 Jun 28 j 23:16	8° $\mathbb{X}$ 59'03	8.63000 AU
				direct	-3280 Sep 05 j 00:17	5° $\mathbb{X}$ 41'12	
conjunction	-3286 Oct 23 j 18:29	5° $\Omega$ 33'39	2°07'04	evening set	-3280 Dec 13 j 16:16	13° $\mathbb{X}$ 01'47	
minimum elong	-3286 Oct 23 j 18:31	5° $\Omega$ 33'40	2°07'03				
max. Earth dist.	-3286 Oct 23 j 04:49	5° $\Omega$ 29'41	11.20213 AU	conjunction	-3280 Dec 30 j 15:11	15° $\mathbb{X}$ 07'19	0°-19'-23
morning rise	-3286 Nov 09 j 03:24	7° $\Omega$ 27'03		minimum elong	-3280 Dec 30 j 15:10	15° $\mathbb{X}$ 07'19	0°19'31
retrograde	-3285 Feb 17 j 15:37	14° $\Omega$ 20'35		max. Earth dist.	-3280 Dec 30 j 03:11	15° $\mathbb{X}$ 03'36	10.55496 AU
opposition	-3285 Apr 29 j 14:42	11° $\Omega$ 03'47	2°26'02	morning rise	-3279 Jan 16 j 18:23	17° $\mathbb{X}$ 14'18	
min. Earth dist.	-3285 Apr 30 j 03:03	11° $\Omega$ 01'32	9.18090 AU	retrograde	-3279 May 02 j 13:34	25° $\mathbb{X}$ 02'24	
direct	-3285 Jul 09 j 18:23	7° $\Omega$ 46'00		opposition	-3279 Jul 11 j 17:31	21° $\mathbb{X}$ 36'42	0°-43'-33
evening set	-3285 Oct 18 j 09:00	14° $\Omega$ 40'38		min. Earth dist.	-3279 Jul 12 j 02:11	21° $\mathbb{X}$ 35'01	8.47718 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 11

Attention, astronomical year style is used: The year -3279 in astronomical counting style is the year 3280 BCE in historical counting style.

direct	-3279 Sep 17 j 15:08	18° $\mathbb{A}$ 15'31		retrograde	-3273 Jul 29 j 05:36	19° $\mathbb{H}$ 00'37	
evening set	-3279 Dec 26 j 13:22	25° $\mathbb{A}$ 45'50		opposition	-3273 Oct 04 j 06:13	15° $\mathbb{H}$ 28'38	-2°-56'-12
				min. Earth dist.	-3273 Oct 03 j 21:11	15° $\mathbb{H}$ 30'32	7.86166 AU
conjunction	-3278 Jan 12 j 15:53	27° $\mathbb{A}$ 54'32	0°-50'-12	direct	-3273 Dec 09 j 03:16	11° $\mathbb{H}$ 59'20	
minimum elong	-3278 Jan 12 j 15:51	27° $\mathbb{A}$ 54'31	0°50'20	evening set	-3272 Mar 22 j 11:56	20° $\mathbb{H}$ 24'02	
max. Earth dist.	-3278 Jan 12 j 06:01	27° $\mathbb{A}$ 51'25	10.40167 AU				
morning rise	-3278 Jan 29 j 23:17	0° $\mathbb{B}$ 04'50		conjunction	-3272 Apr 09 j 12:44	22° $\mathbb{H}$ 47'08	-2°-16'-48
	-3278 Jan 29 j 07:39	0° $\mathbb{B}$		minimum elong	-3272 Apr 09 j 12:46	22° $\mathbb{H}$ 47'08	2°16'50
retrograde	-3278 May 16 j 15:38	8° $\mathbb{B}$ 05'28		max. Earth dist.	-3272 Apr 10 j 02:20	22° $\mathbb{H}$ 51'39	9.85835 AU
opposition	-3278 Jul 25 j 07:22	4° $\mathbb{B}$ 38'00	-1°-21'-10	morning rise	-3272 Apr 27 j 15:25	25° $\mathbb{H}$ 10'50	
min. Earth dist.	-3278 Jul 25 j 13:30	4° $\mathbb{B}$ 36'47	8.32580 AU		-3272 Jun 07 j 02:05	0° $\mathbb{Y}$	
direct	-3278 Sep 30 j 13:23	1° $\mathbb{B}$ 15'27		retrograde	-3272 Aug 12 j 07:46	3° $\mathbb{Y}$ 45'23	
evening set	-3277 Jan 08 j 23:33	8° $\mathbb{B}$ 56'28		opposition	-3272 Oct 17 j 23:07	0° $\mathbb{Y}$ 13'53	-2°-44'-2
				min. Earth dist.	-3272 Oct 17 j 11:50	0° $\mathbb{Y}$ 16'15	7.86888 AU
conjunction	-3277 Jan 26 j 05:48	11° $\mathbb{B}$ 08'22	-1°-19'-20		-3272 Oct 20 j 17:15	30° $\mathbb{R}$ $\mathbb{H}$	
minimum elong	-3277 Jan 26 j 05:45	11° $\mathbb{B}$ 08'21	1°19'29	direct	-3272 Dec 23 j 01:25	26° $\mathbb{H}$ 43'50	
max. Earth dist.	-3277 Jan 25 j 22:39	11° $\mathbb{B}$ 06'04	10.25352 AU		-3271 Feb 22 j 01:28	0° $\mathbb{Y}$	
morning rise	-3277 Feb 12 j 17:21	13° $\mathbb{B}$ 21'59		evening set	-3271 Apr 07 j 03:52	5° $\mathbb{Y}$ 09'52	
retrograde	-3277 May 31 j 03:00	21° $\mathbb{B}$ 34'41					
opposition	-3277 Aug 08 j 05:15	18° $\mathbb{B}$ 05'37	-1°-55'-44	conjunction	-3271 Apr 25 j 07:06	7° $\mathbb{Y}$ 33'07	-2°-2'-45
min. Earth dist.	-3277 Aug 08 j 08:51	18° $\mathbb{B}$ 04'54	8.18388 AU	minimum elong	-3271 Apr 25 j 07:09	7° $\mathbb{Y}$ 33'08	2°02'45
direct	-3277 Oct 13 j 21:48	14° $\mathbb{B}$ 41'34		max. Earth dist.	-3271 Apr 25 j 23:14	7° $\mathbb{Y}$ 38'28	9.88528 AU
evening set	-3276 Jan 22 j 23:17	22° $\mathbb{B}$ 33'45		morning rise	-3271 May 13 j 10:54	9° $\mathbb{Y}$ 56'32	
				retrograde	-3271 Aug 27 j 03:05	18° $\mathbb{Y}$ 23'58	
conjunction	-3276 Feb 09 j 09:22	24° $\mathbb{B}$ 48'44	-1°-44'-55	opposition	-3271 Nov 01 j 13:05	14° $\mathbb{Y}$ 53'26	-2°-21'-11
minimum elong	-3276 Feb 09 j 09:19	24° $\mathbb{B}$ 48'43	1°45'03	min. Earth dist.	-3271 Nov 01 j 00:36	14° $\mathbb{Y}$ 56'03	7.91409 AU
max. Earth dist.	-3276 Feb 09 j 05:47	24° $\mathbb{B}$ 47'34	10.11866 AU	direct	-3270 Jan 07 j 00:58	11° $\mathbb{Y}$ 23'00	
morning rise	-3276 Feb 27 j 00:46	27° $\mathbb{B}$ 05'26		evening set	-3270 Apr 22 j 17:28	19° $\mathbb{Y}$ 47'05	
	-3276 Mar 21 j 21:44	0° $\mathbb{Z}$					
retrograde	-3276 Jun 13 j 20:49	5° $\mathbb{Z}$ 28'52		conjunction	-3270 May 10 j 22:00	22° $\mathbb{Y}$ 09'33	-1°-40'-55
opposition	-3276 Aug 21 j 10:19	1° $\mathbb{Z}$ 58'28	-2°-24'-47	minimum elong	-3270 May 10 j 22:04	22° $\mathbb{Y}$ 09'34	1°40'54
min. Earth dist.	-3276 Aug 21 j 11:05	1° $\mathbb{Z}$ 58'18	8.05952 AU	max. Earth dist.	-3270 May 11 j 15:12	22° $\mathbb{Y}$ 15'12	9.94918 AU
	-3276 Sep 16 j 06:40	30° $\mathbb{R}$ $\mathbb{B}$		morning rise	-3270 May 29 j 01:45	24° $\mathbb{Y}$ 31'43	
direct	-3276 Oct 26 j 17:33	28° $\mathbb{B}$ 32'54			-3270 Jul 16 j 00:55	0° $\mathbb{B}$	
	-3276 Dec 05 j 07:01	0° $\mathbb{Z}$		retrograde	-3270 Sep 10 j 13:26	2° $\mathbb{B}$ 48'57	
evening set	-3275 Feb 05 j 11:59	6° $\mathbb{Z}$ 35'55			-3270 Nov 07 j 19:34	30° $\mathbb{R}$ $\mathbb{Y}$	
				opposition	-3270 Nov 15 j 21:52	29° $\mathbb{Y}$ 19'49	-1°-49'-40
conjunction	-3275 Feb 23 j 01:58	8° $\mathbb{Z}$ 53'44	-2°-4'-59	min. Earth dist.	-3270 Nov 15 j 09:13	29° $\mathbb{Y}$ 22'27	7.99411 AU
minimum elong	-3275 Feb 23 j 01:55	8° $\mathbb{Z}$ 53'43	2°05'06	direct	-3269 Jan 21 j 22:44	25° $\mathbb{Y}$ 49'23	
max. Earth dist.	-3275 Feb 23 j 02:54	8° $\mathbb{Z}$ 54'02	10.00524 AU		-3269 Apr 02 j 23:49	0° $\mathbb{B}$	
morning rise	-3275 Mar 12 j 20:52	11° $\mathbb{Z}$ 13'09		evening set	-3269 May 08 j 01:02	4° $\mathbb{B}$ 08'35	
	-3275 Apr 13 j 02:37	15° $\mathbb{Z}$					
retrograde	-3275 Jun 28 j 21:01	19° $\mathbb{Z}$ 44'57		conjunction	-3269 May 26 j 05:24	6° $\mathbb{B}$ 29'22	-1°-13'-9
opposition	-3275 Sep 04 j 21:32	16° $\mathbb{Z}$ 13'34	-2°-45'-48	minimum elong	-3269 May 26 j 05:27	6° $\mathbb{B}$ 29'23	1°13'07
min. Earth dist.	-3275 Sep 04 j 19:00	16° $\mathbb{Z}$ 14'05	7.96041 AU	max. Earth dist.	-3269 May 26 j 22:19	6° $\mathbb{B}$ 34'51	10.04550 AU
	-3275 Sep 20 j 01:58	15° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-3269 Jun 13 j 07:43	8° $\mathbb{B}$ 49'25	
direct	-3275 Nov 09 j 21:54	12° $\mathbb{Z}$ 46'35			-3269 Aug 09 j 12:34	15° $\mathbb{B}$	
	-3275 Dec 29 j 03:35	15° $\mathbb{Z}$		retrograde	-3269 Sep 24 j 13:50	16° $\mathbb{B}$ 54'30	
evening set	-3274 Feb 20 j 12:05	20° $\mathbb{Z}$ 59'09			-3269 Nov 10 j 11:51	15° $\mathbb{R}$ $\mathbb{B}$	
				min. Earth dist.	-3269 Nov 29 j 11:35	13° $\mathbb{B}$ 29'39	8.10357 AU
conjunction	-3274 Mar 10 j 05:59	23° $\mathbb{Z}$ 19'24	-2°-17'-45	opposition	-3269 Nov 30 j 00:06	13° $\mathbb{B}$ 27'04	-1°-12'-11
minimum elong	-3274 Mar 10 j 05:58	23° $\mathbb{Z}$ 19'23	2°17'51	direct	-3268 Feb 05 j 16:04	9° $\mathbb{B}$ 57'03	
max. Earth dist.	-3274 Mar 10 j 11:46	23° $\mathbb{Z}$ 21'19	9.92058 AU		-3268 Apr 25 j 13:46	15° $\mathbb{B}$	
morning rise	-3274 Mar 28 j 04:03	25° $\mathbb{Z}$ 41'00		evening set	-3268 May 21 j 23:25	18° $\mathbb{B}$ 09'01	
	-3274 May 02 j 23:57	0° $\mathbb{H}$					
retrograde	-3274 Jul 14 j 01:02	4° $\mathbb{H}$ 17'49		conjunction	-3268 Jun 09 j 02:08	20° $\mathbb{B}$ 27'19	0°-41'-38
opposition	-3274 Sep 19 j 12:57	0° $\mathbb{H}$ 45'53	-2°-56'-43	minimum elong	-3268 Jun 09 j 02:10	20° $\mathbb{B}$ 27'20	0°41'35
min. Earth dist.	-3274 Sep 19 j 06:55	0° $\mathbb{H}$ 47'09	7.89292 AU	max. Earth dist.	-3268 Jun 09 j 18:06	20° $\mathbb{B}$ 32'26	10.16777 AU
	-3274 Sep 28 j 19:01	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-3268 Jun 27 j 01:40	22° $\mathbb{B}$ 44'31	
direct	-3274 Nov 24 j 09:44	27° $\mathbb{Z}$ 17'38			-3268 Sep 11 j 11:15	0° $\mathbb{H}$	
	-3273 Jan 18 j 00:48	0° $\mathbb{H}$		retrograde	-3268 Oct 07 j 03:55	0° $\mathbb{H}$ 36'39	
evening set	-3273 Mar 07 j 21:19	5° $\mathbb{H}$ 37'41			-3268 Nov 02 j 00:23	30° $\mathbb{R}$ $\mathbb{B}$	
				opposition	-3268 Dec 12 j 18:30	27° $\mathbb{B}$ 11'06	0°-31'-35
conjunction	-3273 Mar 25 j 18:54	7° $\mathbb{H}$ 59'45	-2°-21'-54	min. Earth dist.	-3268 Dec 12 j 06:23	27° $\mathbb{B}$ 13'33	8.23542 AU
minimum elong	-3273 Mar 25 j 18:54	7° $\mathbb{H}$ 59'45	2°21'57	direct	-3267 Feb 19 j 03:04	23° $\mathbb{B}$ 41'50	
max. Earth dist.	-3273 Mar 26 j 04:58	8° $\mathbb{H}$ 03'06	9.87042 AU		-3267 May 21 j 22:52	0° $\mathbb{H}$	
morning rise	-3273 Apr 12 j 19:36	10° $\mathbb{H}$ 22'49		evening set	-3267 Jun 05 j 11:03	1° $\mathbb{H}$ 45'00	

# Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 12

Attention, astronomical year style is used: The year -3267 in astronomical counting style is the year 3268 BCE in historical counting style.

conjunction	-3267 Jun 23 j 10:45	4°II00'14	0°-8'-38	conjunction	-3261 Sep 05 j 22:48	16°Ω52'16	2°14'44
minimum elong	-3267 Jun 23 j 10:45	4°II00'14	0°08'33	minimum elong	-3261 Sep 05 j 22:47	16°Ω52'15	2°14'48
behind sun begin	-3267 Jun 23 j 04:25	3°II58'16		max. Earth dist.	-3261 Sep 05 j 19:14	16°Ω51'13	11.10272 AU
behind sun end	-3267 Jun 23 j 17:04	4°II02'13		morning rise	-3261 Sep 22 j 12:43	18°Ω47'45	
max. Earth dist.	-3267 Jun 24 j 01:11	4°II04'47	10.30827 AU	retrograde	-3261 Dec 30 j 04:32	25°Ω37'48	
morning rise	-3267 Jul 11 j 06:17	6°II14'07		opposition	-3260 Mar 08 j 15:43	22°Ω22'07	2°49'26
asc. node	-3267 Sep 30 j 02:59	13°II30'50		min. Earth dist.	-3260 Mar 08 j 19:58	22°Ω21'20	9.14168 AU
retrograde	-3267 Oct 20 j 06:51	13°II53'19		direct	-3260 May 19 j 08:53	19°Ω01'26	
opposition	-3267 Dec 26 j 04:35	10°II29'43	0°09'21	evening set	-3260 Aug 30 j 14:58	26°Ω05'37	
min. Earth dist.	-3267 Dec 25 j 17:17	10°II31'59	8.38169 AU				
direct	-3266 Mar 05 j 06:25	7°II01'30		conjunction	-3260 Sep 16 j 05:31	28°Ω00'35	2°22'06
evening set	-3266 Jun 19 j 10:47	14°II55'01		minimum elong	-3260 Sep 16 j 05:30	28°Ω00'35	2°22'10
				max. Earth dist.	-3260 Sep 15 j 22:37	27°Ω58'35	11.17041 AU
conjunction	-3266 Jul 07 j 06:17	17°II06'50	0°23'58	morning rise	-3260 Oct 02 j 16:33	29°Ω54'36	
minimum elong	-3266 Jul 07 j 06:16	17°II06'49	0°24'05		-3260 Oct 03 j 11:35	0°൬	
max. Earth dist.	-3266 Jul 07 j 18:57	17°II10'45	10.45876 AU	retrograde	-3259 Jan 09 j 13:23	6°൬42'36	
morning rise	-3266 Jul 24 j 20:50	19°II17'06		opposition	-3259 Mar 20 j 10:24	3°൬27'12	2°55'01
retrograde	-3266 Nov 02 j 00:42	26°II44'14		min. Earth dist.	-3259 Mar 20 j 17:57	3°൬25'49	9.19619 AU
opposition	-3265 Jan 08 j 06:45	23°II22'32	0°48'23	direct	-3259 May 31 j 04:45	0°൬07'28	
min. Earth dist.	-3265 Jan 07 j 21:10	23°II24'25	8.53420 AU	evening set	-3259 Sep 10 j 20:02	7°൬07'15	
direct	-3265 Mar 19 j 00:11	19°II55'32					
evening set	-3265 Jul 02 j 22:04	27°II39'07		conjunction	-3259 Sep 27 j 07:47	9°൬01'06	2°24'07
				minimum elong	-3259 Sep 27 j 07:47	9°൬01'06	2°24'10
conjunction	-3265 Jul 20 j 12:31	29°II47'23	0°54'23	max. Earth dist.	-3259 Sep 26 j 21:24	8°൬58'05	11.221083 AU
minimum elong	-3265 Jul 20 j 12:29	29°II47'22	0°54'30	morning rise	-3259 Oct 13 j 17:02	10°൬54'15	
max. Earth dist.	-3265 Jul 20 j 22:54	29°II50'33	10.61118 AU	retrograde	-3258 Jan 20 j 20:29	17°൬41'56	
	-3265 Jul 22 j 05:48	0°☾		opposition	-3258 Apr 01 j 03:52	14°൬26'25	2°54'11
morning rise	-3265 Aug 06 j 21:35	1°☾54'02		min. Earth dist.	-3258 Apr 01 j 13:30	14°൬24'40	9.22269 AU
retrograde	-3265 Nov 14 j 10:29	9°☾10'21		direct	-3258 Jun 11 j 21:19	11°൬07'24	
opposition	-3264 Jan 21 j 01:18	5°☾50'24	1°23'45	evening set	-3258 Sep 21 j 21:20	18°൬04'07	
min. Earth dist.	-3264 Jan 20 j 18:28	5°☾51'43	8.68519 AU				
direct	-3264 Mar 31 j 07:42	2°☾24'43		conjunction	-3258 Oct 08 j 07:29	19°൬57'26	2°20'51
evening set	-3264 Jul 14 j 21:26	9°☾58'37		minimum elong	-3258 Oct 08 j 07:30	19°൬57'26	2°20'53
				max. Earth dist.	-3258 Oct 07 j 19:30	19°൬53'58	11.22317 AU
conjunction	-3264 Aug 01 j 06:21	12°☾03'26	1°21'24	morning rise	-3258 Oct 24 j 15:51	21°൬50'18	
minimum elong	-3264 Aug 01 j 06:18	12°☾03'25	1°21'31	retrograde	-3257 Feb 01 j 08:04	28°൬39'20	
max. Earth dist.	-3264 Aug 01 j 13:04	12°☾05'28	10.75815 AU	opposition	-3257 Apr 12 j 21:24	25°൬23'22	2°47'05
morning rise	-3264 Aug 18 j 09:59	14°☾06'40		min. Earth dist.	-3257 Apr 13 j 08:08	25°൬21'24	9.22068 AU
retrograde	-3264 Nov 25 j 09:46	21°☾13'42		direct	-3257 Jun 23 j 12:38	22°൬04'51	
opposition	-3263 Feb 01 j 12:43	17°☾55'16	1°54'10	evening set	-3257 Oct 02 j 20:37	28°൬59'47	
min. Earth dist.	-3263 Feb 01 j 08:57	17°☾55'59	8.82748 AU		-3257 Oct 11 j 14:41	0°☾	
direct	-3263 Apr 13 j 07:46	14°☾30'54					
evening set	-3263 Jul 27 j 09:31	21°☾55'48		conjunction	-3257 Oct 19 j 06:10	0°☾53'11	2°12'27
				minimum elong	-3257 Oct 19 j 06:12	0°☾53'12	2°12'27
conjunction	-3263 Aug 13 j 12:57	23°☾57'26	1°44'08	max. Earth dist.	-3257 Oct 18 j 17:13	0°☾49'25	11.20718 AU
minimum elong	-3263 Aug 13 j 12:54	23°☾57'25	1°44'15	morning rise	-3257 Nov 04 j 14:37	2°☾46'21	
max. Earth dist.	-3263 Aug 13 j 15:25	23°☾58'10	10.89289 AU	retrograde	-3256 Feb 12 j 20:35	9°☾38'21	
morning rise	-3263 Aug 30 j 11:31	25°☾57'35		opposition	-3256 Apr 23 j 16:08	6°☾21'38	2°33'55
	-3263 Oct 07 j 16:24	0°Ω		min. Earth dist.	-3256 Apr 24 j 04:09	6°☾19'27	9.19034 AU
retrograde	-3263 Dec 07 j 03:40	2°Ω57'06		direct	-3256 Jul 03 j 23:48	3°☾03'24	
	-3262 Feb 09 j 07:10	30°R☾		evening set	-3256 Oct 12 j 20:03	9°☾58'04	
opposition	-3262 Feb 13 j 18:09	29°☾39'53	2°18'52				
min. Earth dist.	-3262 Feb 13 j 16:59	29°☾40'06	8.95442 AU	conjunction	-3256 Oct 29 j 05:42	11°☾52'03	1°59'09
direct	-3262 Apr 26 j 00:37	26°☾16'50		minimum elong	-3256 Oct 29 j 05:44	11°☾52'04	1°59'07
	-3262 Jul 06 j 03:41	0°Ω		max. Earth dist.	-3256 Oct 28 j 14:48	11°☾47'42	11.16347 AU
evening set	-3262 Aug 08 j 11:24	3°Ω33'37		morning rise	-3256 Nov 14 j 15:18	13°☾46'06	
				retrograde	-3255 Feb 23 j 13:32	20°☾42'42	
conjunction	-3262 Aug 25 j 09:49	5°Ω32'29	2°02'01	opposition	-3255 May 05 j 13:14	17°☾24'59	2°14'59
minimum elong	-3262 Aug 25 j 09:46	5°Ω32'28	2°02'07	min. Earth dist.	-3255 May 06 j 02:54	17°☾22'29	9.13278 AU
max. Earth dist.	-3262 Aug 25 j 08:51	5°Ω32'12	11.00931 AU	direct	-3255 Jul 15 j 12:32	14°☾06'46	
morning rise	-3262 Sep 11 j 03:42	7°Ω30'01		evening set	-3255 Oct 23 j 21:15	21°☾02'42	
retrograde	-3262 Dec 18 j 17:57	14°Ω23'52					
opposition	-3261 Feb 25 j 18:44	11°Ω07'34	2°37'21	conjunction	-3255 Nov 09 j 07:52	22°☾57'50	1°41'16
min. Earth dist.	-3261 Feb 25 j 19:56	11°Ω07'21	9.06039 AU	minimum elong	-3255 Nov 09 j 07:55	22°☾57'51	1°41'12
direct	-3261 May 08 j 08:00	7°Ω45'47		max. Earth dist.	-3255 Nov 08 j 15:51	22°☾53'08	11.09358 AU
evening set	-3261 Aug 20 j 04:40	14°Ω55'37		morning rise	-3255 Nov 25 j 19:33	24°☾53'19	
	-3261 Aug 20 j 19:59	15°Ω			-3254 Jan 16 j 15:25	0°ℳ	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 13

Attention, astronomical year style is used: The year -3254 in astronomical counting style is the year 3255 BCE in historical counting style.

retrograde	-3254 Mar 07 j 11:26	1°♄56'11		minimum elong	-3248 Jan 20 j 11:25	5°♄22'52	1°06'39
	-3254 Apr 28 j 06:09	30°♄		max. Earth dist.	-3248 Jan 20 j 04:42	5°♄20'43	10.31391 AU
opposition	-3254 May 17 j 14:05	28°♄37'13	1°50'40	morning rise	-3248 Feb 06 j 21:05	7°♄35'03	
min. Earth dist.	-3254 May 18 j 04:10	28°♄34'37	9.04998 AU	retrograde	-3248 May 23 j 22:16	15°♄42'35	
direct	-3254 Jul 27 j 02:43	25°♄18'50		opposition	-3248 Aug 01 j 08:00	12°♄14'07	-1°-40'-40
	-3254 Oct 14 j 11:27	0°♄		min. Earth dist.	-3248 Aug 01 j 11:50	12°♄13'21	8.24319 AU
evening set	-3254 Nov 04 j 02:02	2°♄17'34		direct	-3248 Oct 07 j 07:11	8°♄50'44	
				evening set	-3247 Jan 16 j 00:25	16°♄38'02	
conjunction	-3254 Nov 20 j 14:35	4°♄14'21	1°19'13				
minimum elong	-3254 Nov 20 j 14:38	4°♄14'22	1°19'09	conjunction	-3247 Feb 02 j 08:50	18°♄51'41	-1°-33'-56
max. Earth dist.	-3254 Nov 19 j 23:08	4°♄09'46	10.99970 AU	minimum elong	-3247 Feb 02 j 08:47	18°♄51'40	1°34'04
morning rise	-3254 Dec 07 j 04:55	6°♄11'46		max. Earth dist.	-3247 Feb 02 j 05:56	18°♄50'44	10.17640 AU
retrograde	-3253 Mar 19 j 17:38	13°♄22'33		morning rise	-3247 Feb 19 j 22:19	21°♄07'01	
opposition	-3253 May 29 j 19:38	10°♄02'06	1°21'32	retrograde	-3247 Jun 07 j 14:05	29°♄26'01	
min. Earth dist.	-3253 May 30 j 08:52	9°♄59'39	8.94459 AU	opposition	-3247 Aug 15 j 10:14	25°♄56'16	-2°-12'-29
direct	-3253 Aug 07 j 20:54	6°♄43'21		min. Earth dist.	-3247 Aug 15 j 10:33	25°♄56'13	8.11434 AU
evening set	-3253 Nov 15 j 12:43	13°♄46'32		direct	-3247 Oct 20 j 21:26	22°♄31'38	
	-3253 Nov 25 j 20:15	15°♄			-3246 Jan 26 j 09:49	0°♄	
				evening set	-3246 Jan 30 j 07:39	0°♄29'54	
conjunction	-3253 Dec 02 j 03:47	15°♄45'28	0°53'33				
minimum elong	-3253 Dec 02 j 03:49	15°♄45'28	0°53'29	conjunction	-3246 Feb 16 j 19:51	2°♄46'29	-1°-56'-42
max. Earth dist.	-3253 Dec 01 j 13:06	15°♄41'03	10.88485 AU	minimum elong	-3246 Feb 16 j 19:48	2°♄46'28	1°56'49
morning rise	-3253 Dec 18 j 21:22	17°♄45'15		max. Earth dist.	-3246 Feb 16 j 20:45	2°♄46'46	10.05679 AU
retrograde	-3252 Mar 31 j 09:21	25°♄05'25		morning rise	-3246 Mar 06 j 13:03	5°♄04'41	
opposition	-3252 Jun 10 j 06:55	21°♄43'24	0°48'17	retrograde	-3246 Jun 22 j 13:31	13°♄33'10	
min. Earth dist.	-3252 Jun 10 j 19:04	21°♄41'07	8.82022 AU	opposition	-3246 Aug 29 j 19:08	10°♄02'29	-2°-37'-22
direct	-3252 Aug 18 j 17:48	18°♄24'05		min. Earth dist.	-3246 Aug 29 j 16:17	10°♄03'04	8.00737 AU
evening set	-3252 Nov 26 j 07:14	25°♄33'21		direct	-3246 Nov 03 j 20:32	6°♄36'33	
max. Earth dist.	-3252 Dec 12 j 10:43	27°♄30'24	10.75316 AU	evening set	-3245 Feb 14 j 03:18	14°♄44'58	
					-3245 Feb 16 j 01:40	15°♄	
conjunction	-3252 Dec 13 j 01:08	27°♄34'47	0°25'03				
minimum elong	-3252 Dec 13 j 01:09	27°♄34'48	0°24'58	conjunction	-3245 Mar 03 j 19:17	17°♄04'06	-2°-12'-55
morning rise	-3252 Dec 29 j 22:32	29°♄37'22		minimum elong	-3245 Mar 03 j 19:15	17°♄04'06	2°13'01
	-3251 Jan 02 j 02:50	0°♄		max. Earth dist.	-3245 Mar 03 j 23:51	17°♄05'37	9.96275 AU
retrograde	-3251 Apr 13 j 08:55	7°♄08'16		morning rise	-3245 Mar 21 j 15:54	19°♄24'44	
opposition	-3251 Jun 23 j 01:22	3°♄44'36	0°11'56	retrograde	-3245 Jul 07 j 17:27	27°♄59'40	
min. Earth dist.	-3251 Jun 23 j 12:35	3°♄42'28	8.68162 AU	opposition	-3245 Sep 13 j 09:13	24°♄28'25	-2°-52'-59
direct	-3251 Aug 30 j 20:04	0°♄24'30		min. Earth dist.	-3245 Sep 13 j 03:46	24°♄29'32	7.92918 AU
desc. node	-3251 Oct 20 j 13:43	2°♄34'06		direct	-3245 Nov 18 j 04:57	21°♄01'16	
evening set	-3251 Dec 08 j 11:11	7°♄41'27		evening set	-3244 Feb 29 j 09:01	29°♄18'02	
					-3244 Mar 05 j 17:13	0°♄	
conjunction	-3251 Dec 25 j 08:22	9°♄45'43	0°-5'-25				
minimum elong	-3251 Dec 25 j 08:21	9°♄45'43	0°05'32	conjunction	-3244 Mar 18 j 04:40	1°♄39'12	-2°-21'-2
behind sun begin	-3251 Dec 25 j 01:33	9°♄43'39		minimum elong	-3244 Mar 18 j 04:39	1°♄39'12	2°21'06
behind sun end	-3251 Dec 25 j 15:09	9°♄47'48		max. Earth dist.	-3244 Mar 18 j 12:58	1°♄41'57	9.90050 AU
max. Earth dist.	-3251 Dec 24 j 19:08	9°♄41'39	10.60983 AU	morning rise	-3244 Apr 05 j 04:13	4°♄01'35	
morning rise	-3250 Jan 11 j 09:53	11°♄51'22		retrograde	-3244 Jul 21 j 22:26	12°♄39'09	
retrograde	-3250 Apr 26 j 18:27	19°♄34'07		opposition	-3244 Sep 27 j 02:09	9°♄07'45	-2°-57'-38
opposition	-3250 Jul 06 j 03:31	16°♄08'46	0°-26'-12	min. Earth dist.	-3244 Sep 26 j 18:23	9°♄09'22	7.88482 AU
min. Earth dist.	-3250 Jul 06 j 13:17	16°♄06'53	8.53462 AU	direct	-3244 Dec 01 j 21:10	5°♄39'30	
direct	-3250 Sep 12 j 07:49	12°♄47'41		evening set	-3243 Mar 15 j 21:36	14°♄02'03	
evening set	-3250 Dec 21 j 02:37	20°♄13'46					
				conjunction	-3243 Apr 02 j 20:43	16°♄24'33	-2°-20'-4
conjunction	-3249 Jan 07 j 03:27	22°♄21'06	0°-36'-24	minimum elong	-3243 Apr 02 j 20:44	16°♄24'34	2°20'07
minimum elong	-3249 Jan 07 j 03:25	22°♄21'06	0°36'31	max. Earth dist.	-3243 Apr 03 j 08:20	16°♄28'25	9.87403 AU
max. Earth dist.	-3249 Jan 06 j 17:03	22°♄17'51	10.46103 AU	morning rise	-3243 Apr 20 j 22:38	18°♄47'55	
morning rise	-3249 Jan 24 j 09:05	24°♄30'00		retrograde	-3243 Aug 06 j 01:14	27°♄23'56	
	-3249 Mar 16 j 20:07	0°♄		opposition	-3243 Oct 11 j 19:27	23°♄52'49	-2°-50'-37
retrograde	-3249 May 10 j 15:09	2°♄25'10		min. Earth dist.	-3243 Oct 11 j 09:46	23°♄54'51	7.87660 AU
	-3249 Jul 06 j 05:05	30°♄		direct	-3243 Dec 16 j 19:11	20°♄23'41	
opposition	-3249 Jul 19 j 13:37	28°♄58'12	-1°-4'-27	evening set	-3242 Mar 31 j 13:18	28°♄48'58	
min. Earth dist.	-3249 Jul 19 j 20:55	28°♄56'46	8.38597 AU		-3242 Apr 09 j 13:59	0°♄	
direct	-3249 Sep 25 j 03:00	25°♄36'00					
	-3249 Dec 07 j 00:52	0°♄		conjunction	-3242 Apr 18 j 15:22	1°♄12'03	-2°-9'-56
evening set	-3248 Jan 03 j 06:48	3°♄12'22		minimum elong	-3242 Apr 18 j 15:25	1°♄12'04	2°09'57
				max. Earth dist.	-3242 Apr 19 j 05:16	1°♄16'40	9.88407 AU
conjunction	-3248 Jan 20 j 11:27	5°♄22'52	-1°-6'-31	morning rise	-3242 May 06 j 18:52	3°♄35'32	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 14

Attention, astronomical year style is used: The year -3242 in astronomical counting style is the year 3243 BCE in historical counting style.

retrograde	-3242 Aug 20 j 22:25	12°♊06'08		retrograde	-3236 Nov 08 j 09:07	3°♊59'50	
opposition	-3242 Oct 26 j 10:50	8°♊35'46	-2°-32'-22	opposition	-3235 Jan 14 j 20:36	0°♊38'49	1°08'45
min. Earth dist.	-3242 Oct 25 j 23:42	8°♊38'06	7.90396 AU	min. Earth dist.	-3235 Jan 14 j 13:18	0°♊40'15	8.60723 AU
direct	-3242 Dec 31 j 18:40	5°♊06'05			-3235 Jan 23 j 04:16	30°♊	
evening set	-3241 Apr 16 j 04:25	13°♊31'02		direct	-3235 Mar 25 j 22:18	27°♊12'09	
					-3235 May 24 j 19:41	0°♊	
conjunction	-3241 May 04 j 08:26	15°♊53'50	-1°-51'-23	evening set	-3235 Jul 09 j 15:10	4°♊50'45	
minimum elong	-3241 May 04 j 08:29	15°♊53'51	1°51'23				
max. Earth dist.	-3241 May 04 j 23:55	15°♊58'56	9.92931 AU	conjunction	-3235 Jul 27 j 02:41	6°♊57'14	1°10'00
morning rise	-3241 May 22 j 12:20	18°♊16'32		minimum elong	-3235 Jul 27 j 02:38	6°♊57'13	1°10'07
retrograde	-3241 Sep 04 j 12:47	26°♊38'29		max. Earth dist.	-3235 Jul 27 j 09:36	6°♊59'20	10.68078 AU
opposition	-3241 Nov 09 j 22:10	23°♊09'17	-2°-4'-27	morning rise	-3235 Aug 13 j 08:59	9°♊02'07	
min. Earth dist.	-3241 Nov 09 j 09:51	23°♊11'51	7.96536 AU	retrograde	-3235 Nov 20 j 13:03	16°♊13'30	
direct	-3240 Jan 15 j 16:57	19°♊39'24		opposition	-3234 Jan 27 j 11:07	12°♊53'57	1°41'31
evening set	-3240 Apr 30 j 15:09	28°♊00'59		min. Earth dist.	-3234 Jan 27 j 05:44	12°♊55'00	8.75121 AU
	-3240 May 15 j 22:42	0°♊		direct	-3234 Apr 08 j 02:16	9°♊28'30	
				evening set	-3234 Jul 22 j 08:16	16°♊57'45	
conjunction	-3240 May 18 j 19:50	0°♊22'35	-1°-26'-1				
minimum elong	-3240 May 18 j 19:54	0°♊22'36	1°25'59	conjunction	-3234 Aug 08 j 14:23	19°♊00'55	1°34'44
max. Earth dist.	-3240 May 19 j 12:23	0°♊27'59	10.00755 AU	minimum elong	-3234 Aug 08 j 14:20	19°♊00'54	1°34'51
morning rise	-3240 Jun 05 j 22:53	2°♊43'36		max. Earth dist.	-3234 Aug 08 j 19:00	19°♊02'18	10.81934 AU
retrograde	-3240 Sep 17 j 18:57	10°♊54'28		morning rise	-3234 Aug 25 j 15:12	21°♊02'33	
opposition	-3240 Nov 23 j 03:42	7°♊26'42	-1°-29'-17	retrograde	-3234 Dec 02 j 10:45	28°♊05'36	
min. Earth dist.	-3240 Nov 22 j 15:02	7°♊29'19	8.05780 AU	opposition	-3233 Feb 08 j 19:22	24°♊47'20	2°08'50
direct	-3239 Jan 29 j 11:49	3°♊56'56		min. Earth dist.	-3233 Feb 08 j 16:38	24°♊47'51	8.88402 AU
evening set	-3239 May 15 j 18:19	12°♊12'29		direct	-3233 Apr 20 j 21:24	21°♊23'09	
				evening set	-3233 Aug 03 j 14:33	28°♊43'47	
conjunction	-3239 Jun 02 j 22:09	14°♊32'01	0°-55'-53		-3233 Aug 14 j 10:42	0°♊	
minimum elong	-3239 Jun 02 j 22:11	14°♊32'02	0°55'49	conjunction	-3233 Aug 20 j 15:22	0°♊43'59	1°54'49
max. Earth dist.	-3239 Jun 03 j 14:36	14°♊37'19	10.11430 AU	minimum elong	-3233 Aug 20 j 15:18	0°♊43'59	1°54'55
	-3239 Jun 06 j 12:58	15°♊		max. Earth dist.	-3233 Aug 20 j 16:56	0°♊44'27	10.94388 AU
morning rise	-3239 Jun 20 j 23:00	16°♊50'35		morning rise	-3233 Sep 06 j 11:14	2°♊42'47	
retrograde	-3239 Oct 01 j 15:22	24°♊48'53		retrograde	-3233 Dec 14 j 01:46	9°♊39'16	
opposition	-3239 Dec 07 j 02:06	21°♊22'45	0°-49'-43	opposition	-3232 Feb 20 j 22:07	6°♊22'02	2°30'07
min. Earth dist.	-3239 Dec 06 j 14:12	21°♊25'11	8.17570 AU	min. Earth dist.	-3232 Feb 20 j 22:32	6°♊21'57	9.00047 AU
direct	-3238 Feb 13 j 01:31	17°♊53'23		direct	-3232 May 02 j 07:48	2°♊59'07	
evening set	-3238 May 30 j 11:38	26°♊00'56		evening set	-3232 Aug 14 j 11:34	10°♊12'11	
conjunction	-3238 Jun 17 j 12:58	28°♊17'41	0°-23'-15				
minimum elong	-3238 Jun 17 j 12:59	28°♊17'42	0°23'10	conjunction	-3232 Aug 31 j 07:33	12°♊09'52	2°09'51
max. Earth dist.	-3238 Jun 18 j 03:53	28°♊22'25	10.24279 AU	minimum elong	-3232 Aug 31 j 07:31	12°♊09'52	2°09'55
	-3238 Jul 01 j 00:10	0°♊		max. Earth dist.	-3232 Aug 31 j 05:12	12°♊09'11	11.04984 AU
morning rise	-3238 Jul 05 j 10:20	0°♊33'10		morning rise	-3232 Sep 16 j 23:19	14°♊06'20	
retrograde	-3238 Oct 14 j 23:47	8°♊18'29			-3232 Sep 24 j 20:39	15°♊	
opposition	-3238 Dec 20 j 16:25	4°♊54'07	0°-8'-36	retrograde	-3232 Dec 24 j 11:53	20°♊58'01	
min. Earth dist.	-3238 Dec 20 j 06:02	4°♊56'13	8.31184 AU	opposition	-3231 Mar 03 j 20:18	17°♊41'34	2°45'01
direct	-3237 Feb 27 j 09:28	1°♊25'25		min. Earth dist.	-3231 Mar 03 j 23:02	17°♊41'04	9.09624 AU
asc. node	-3237 Mar 10 j 10:31	1°♊31'51			-3231 Apr 15 j 01:09	15°♊	
evening set	-3237 Jun 13 j 17:17	9°♊23'44		direct	-3231 May 14 j 12:40	14°♊19'52	
					-3231 Jun 12 j 16:52	15°♊	
conjunction	-3237 Jul 01 j 14:47	11°♊37'12	0°09'49	evening set	-3231 Aug 26 j 00:42	21°♊26'33	
minimum elong	-3237 Jul 01 j 14:46	11°♊37'12	0°09'55				
behind sun begin	-3237 Jul 01 j 08:55	11°♊35'23		conjunction	-3231 Sep 11 j 16:44	23°♊22'15	2°19'34
behind sun end	-3237 Jul 01 j 20:37	11°♊39'01		minimum elong	-3231 Sep 11 j 16:43	23°♊22'15	2°19'38
max. Earth dist.	-3237 Jul 02 j 03:10	11°♊41'04	10.38530 AU	max. Earth dist.	-3231 Sep 11 j 11:46	23°♊20'48	11.13352 AU
morning rise	-3237 Jul 19 j 07:41	13°♊49'13		morning rise	-3231 Sep 28 j 05:08	25°♊16'55	
retrograde	-3237 Oct 27 j 20:45	21°♊22'01			-3231 Nov 14 j 16:52	0°♊	
opposition	-3236 Jan 02 j 22:36	17°♊59'24	0°31'33	retrograde	-3230 Jan 04 j 21:52	2°♊05'34	
min. Earth dist.	-3236 Jan 02 j 13:52	18°♊01'08	8.45834 AU		-3230 Feb 27 j 08:42	30°♊	
direct	-3236 Mar 12 j 08:47	14°♊31'37		opposition	-3230 Mar 15 j 15:34	28°♊49'38	2°53'26
evening set	-3236 Jun 26 j 10:20	22°♊20'04		min. Earth dist.	-3230 Mar 15 j 19:59	28°♊48'49	9.16800 AU
				direct	-3230 May 26 j 11:15	25°♊29'06	
conjunction	-3236 Jul 14 j 03:05	24°♊30'02	0°41'20		-3230 Aug 14 j 02:37	0°♊	
minimum elong	-3236 Jul 14 j 03:03	24°♊30'02	0°41'28	evening set	-3230 Sep 06 j 07:28	2°♊30'35	
max. Earth dist.	-3236 Jul 14 j 12:30	24°♊32'56	10.53385 AU				
morning rise	-3236 Jul 31 j 14:54	26°♊38'27		conjunction	-3230 Sep 22 j 20:30	4°♊24'52	2°23'56
	-3236 Aug 30 j 08:24	0°♊		minimum elong	-3230 Sep 22 j 20:29	4°♊24'52	2°23'59



## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 15

Attention, astronomical year style is used: The year -3230 in astronomical counting style is the year 3231 BCE in historical counting style.

max. Earth dist.	-3230 Sep 22 j 13:54	4° $\overline{\text{M}}$ 22'57	11.19206 AU	retrograde	-3223 Mar 25 j 23:22	19° $\overline{\text{M}}$ 57'58	
morning rise	-3230 Oct 09 j 06:22	6° $\overline{\text{M}}$ 18'19		opposition	-3223 Jun 04 j 23:44	16° $\overline{\text{M}}$ 37'30	1°03'40
retrograde	-3229 Jan 16 j 06:05	13° $\overline{\text{M}}$ 05'42		min. Earth dist.	-3223 Jun 05 j 13:03	16° $\overline{\text{M}}$ 35'01	8.91230 AU
opposition	-3229 Mar 27 j 09:08	9° $\overline{\text{M}}$ 49'59	2°55'23		-3223 Jun 27 j 19:02	15° $\overline{\text{R}}$ $\overline{\text{M}}$	
min. Earth dist.	-3229 Mar 27 j 15:40	9° $\overline{\text{M}}$ 48'47	9.21339 AU	direct	-3223 Aug 13 j 17:08	13° $\overline{\text{M}}$ 19'12	
direct	-3229 Jun 07 j 04:04	6° $\overline{\text{M}}$ 30'29			-3223 Sep 27 j 21:54	15° $\overline{\text{M}}$	
evening set	-3229 Sep 17 j 09:54	13° $\overline{\text{M}}$ 28'05		evening set	-3223 Nov 21 j 07:25	20° $\overline{\text{M}}$ 24'09	
conjunction	-3229 Oct 03 j 20:44	15° $\overline{\text{M}}$ 21'31	2°22'58	conjunction	-3223 Dec 07 j 23:44	22° $\overline{\text{M}}$ 23'57	0°38'14
minimum elong	-3229 Oct 03 j 20:45	15° $\overline{\text{M}}$ 21'31	2°23'00	minimum elong	-3223 Dec 07 j 23:46	22° $\overline{\text{M}}$ 23'58	0°38'09
max. Earth dist.	-3229 Oct 03 j 11:37	15° $\overline{\text{M}}$ 18'52	11.22364 AU	max. Earth dist.	-3223 Dec 07 j 09:06	22° $\overline{\text{M}}$ 19'33	10.84895 AU
morning rise	-3229 Oct 20 j 05:17	17° $\overline{\text{M}}$ 14'21		morning rise	-3223 Dec 24 j 19:10	24° $\overline{\text{M}}$ 24'48	
retrograde	-3228 Jan 27 j 15:35	24° $\overline{\text{M}}$ 02'07			-3222 Feb 18 j 18:23	0° $\overline{\text{A}}$	
opposition	-3228 Apr 07 j 01:59	20° $\overline{\text{M}}$ 46'21	2°50'59	retrograde	-3222 Apr 07 j 17:16	1° $\overline{\text{A}}$ 49'06	
min. Earth dist.	-3228 Apr 07 j 11:12	20° $\overline{\text{M}}$ 44'41	9.23110 AU		-3222 May 27 j 04:05	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
direct	-3228 Jun 17 j 18:09	17° $\overline{\text{M}}$ 27'39		opposition	-3222 Jun 17 j 13:51	28° $\overline{\text{M}}$ 26'59	0°28'44
evening set	-3228 Sep 27 j 09:37	24° $\overline{\text{M}}$ 22'46		min. Earth dist.	-3222 Jun 18 j 02:06	28° $\overline{\text{M}}$ 24'41	8.78014 AU
				direct	-3222 Aug 25 j 16:58	25° $\overline{\text{M}}$ 08'00	
conjunction	-3228 Oct 13 j 19:11	26° $\overline{\text{M}}$ 15'56	2°16'47		-3222 Nov 12 j 23:00	0° $\overline{\text{A}}$	
minimum elong	-3228 Oct 13 j 19:12	26° $\overline{\text{M}}$ 15'56	2°16'49	evening set	-3222 Dec 03 j 05:50	2° $\overline{\text{A}}$ 19'48	
max. Earth dist.	-3228 Oct 13 j 07:23	26° $\overline{\text{M}}$ 12'31	11.22735 AU	max. Earth dist.	-3222 Dec 19 j 11:56	4° $\overline{\text{A}}$ 18'12	10.70942 AU
morning rise	-3228 Oct 30 j 03:33	28° $\overline{\text{M}}$ 08'47					
	-3228 Nov 16 j 00:36	0° $\overline{\text{A}}$		conjunction	-3222 Dec 20 j 01:24	4° $\overline{\text{A}}$ 22'19	0°08'42
retrograde	-3227 Feb 07 j 00:46	4° $\overline{\text{A}}$ 58'36		minimum elong	-3222 Dec 20 j 01:24	4° $\overline{\text{A}}$ 22'19	0°08'36
opposition	-3227 Apr 18 j 19:31	1° $\overline{\text{A}}$ 42'27	2°40'26	behind sun begin	-3222 Dec 19 j 19:15	4° $\overline{\text{A}}$ 20'27	
min. Earth dist.	-3227 Apr 19 j 06:28	1° $\overline{\text{A}}$ 40'28	9.22046 AU	behind sun end	-3222 Dec 20 j 07:33	4° $\overline{\text{A}}$ 24'10	
	-3227 May 13 j 11:19	30° $\overline{\text{R}}$ $\overline{\text{M}}$		morning rise	-3221 Jan 06 j 00:39	6° $\overline{\text{A}}$ 26'03	
direct	-3227 Jun 29 j 06:06	28° $\overline{\text{M}}$ 24'21		desc. node	-3221 Apr 05 j 20:41	13° $\overline{\text{A}}$ 50'24	
	-3227 Aug 13 j 14:25	0° $\overline{\text{A}}$		retrograde	-3221 Apr 20 j 22:32	14° $\overline{\text{A}}$ 01'43	
evening set	-3227 Oct 08 j 08:16	5° $\overline{\text{A}}$ 18'24		opposition	-3221 Jun 30 j 11:14	10° $\overline{\text{A}}$ 37'51	0°-8'-36
				min. Earth dist.	-3221 Jun 30 j 21:47	10° $\overline{\text{A}}$ 35'50	8.63416 AU
conjunction	-3227 Oct 24 j 17:39	7° $\overline{\text{A}}$ 11'51	2°05'37	direct	-3221 Sep 06 j 23:46	7° $\overline{\text{A}}$ 17'55	
minimum elong	-3227 Oct 24 j 17:41	7° $\overline{\text{A}}$ 11'52	2°05'36	evening set	-3221 Dec 15 j 14:56	14° $\overline{\text{A}}$ 38'10	
max. Earth dist.	-3227 Oct 24 j 04:54	7° $\overline{\text{A}}$ 08'08	11.20294 AU				
morning rise	-3227 Nov 10 j 02:37	9° $\overline{\text{A}}$ 05'15		conjunction	-3220 Jan 01 j 13:51	16° $\overline{\text{A}}$ 43'40	0°-22'-8
retrograde	-3226 Feb 18 j 16:26	15° $\overline{\text{A}}$ 58'50		minimum elong	-3220 Jan 01 j 13:51	16° $\overline{\text{A}}$ 43'40	0°22'16
opposition	-3226 Apr 30 j 14:55	12° $\overline{\text{A}}$ 41'59	2°24'00	max. Earth dist.	-3220 Jan 01 j 01:28	16° $\overline{\text{A}}$ 39'50	10.55919 AU
min. Earth dist.	-3226 May 01 j 02:15	12° $\overline{\text{A}}$ 39'55	9.18174 AU	morning rise	-3220 Jan 18 j 17:13	18° $\overline{\text{A}}$ 50'37	
direct	-3226 Jul 10 j 19:36	9° $\overline{\text{A}}$ 24'16		retrograde	-3220 May 03 j 13:51	26° $\overline{\text{A}}$ 38'28	
evening set	-3226 Oct 19 j 07:55	16° $\overline{\text{A}}$ 18'39		opposition	-3220 Jul 12 j 16:26	23° $\overline{\text{A}}$ 12'50	0°-46'-51
				min. Earth dist.	-3220 Jul 13 j 01:10	23° $\overline{\text{A}}$ 11'08	8.48141 AU
conjunction	-3226 Nov 04 j 18:02	18° $\overline{\text{A}}$ 12'58	1°49'44	direct	-3220 Sep 18 j 12:36	19° $\overline{\text{A}}$ 51'41	
minimum elong	-3226 Nov 04 j 18:05	18° $\overline{\text{A}}$ 12'59	1°49'42	evening set	-3220 Dec 27 j 12:01	27° $\overline{\text{A}}$ 21'46	
max. Earth dist.	-3226 Nov 04 j 04:51	18° $\overline{\text{A}}$ 09'07	11.15107 AU				
morning rise	-3226 Nov 21 j 04:27	20° $\overline{\text{A}}$ 07'29		conjunction	-3219 Jan 13 j 14:31	29° $\overline{\text{A}}$ 30'24	0°-52'-46
retrograde	-3225 Mar 02 j 12:43	27° $\overline{\text{A}}$ 06'23		minimum elong	-3219 Jan 13 j 14:28	29° $\overline{\text{A}}$ 30'23	0°52'54
opposition	-3225 May 12 j 13:20	23° $\overline{\text{A}}$ 48'35	2°02'02	max. Earth dist.	-3219 Jan 13 j 03:50	29° $\overline{\text{A}}$ 27'02	10.40583 AU
min. Earth dist.	-3225 May 13 j 01:18	23° $\overline{\text{A}}$ 46'23	9.11612 AU		-3219 Jan 17 j 12:18	0° $\overline{\text{B}}$	
direct	-3225 Jul 22 j 06:55	20° $\overline{\text{A}}$ 30'59		morning rise	-3219 Jan 30 j 22:05	1° $\overline{\text{B}}$ 40'40	
evening set	-3225 Oct 30 j 10:24	27° $\overline{\text{A}}$ 27'15		retrograde	-3219 May 17 j 14:27	9° $\overline{\text{B}}$ 41'03	
				opposition	-3219 Jul 26 j 06:05	6° $\overline{\text{B}}$ 13'40	-1°-24'-9
conjunction	-3225 Nov 15 j 21:54	29° $\overline{\text{A}}$ 22'56	1°29'31	min. Earth dist.	-3219 Jul 26 j 12:53	6° $\overline{\text{B}}$ 12'19	8.32982 AU
minimum elong	-3225 Nov 15 j 21:57	29° $\overline{\text{A}}$ 22'57	1°29'27	direct	-3219 Oct 01 j 11:41	2° $\overline{\text{B}}$ 51'08	
max. Earth dist.	-3225 Nov 15 j 07:21	29° $\overline{\text{A}}$ 18'39	11.07326 AU	evening set	-3218 Jan 09 j 22:03	10° $\overline{\text{B}}$ 31'59	
	-3225 Nov 21 j 03:45	0° $\overline{\text{M}}$					
morning rise	-3225 Dec 02 j 10:46	1° $\overline{\text{M}}$ 19'06		conjunction	-3218 Jan 27 j 04:21	12° $\overline{\text{B}}$ 43'50	-1°-21'-34
retrograde	-3224 Mar 13 j 13:59	8° $\overline{\text{M}}$ 24'55		minimum elong	-3218 Jan 27 j 04:18	12° $\overline{\text{B}}$ 43'49	1°21'42
opposition	-3224 May 23 j 15:56	5° $\overline{\text{M}}$ 05'53	1°35'03	max. Earth dist.	-3218 Jan 26 j 21:00	12° $\overline{\text{B}}$ 41'28	10.25737 AU
min. Earth dist.	-3224 May 24 j 04:53	5° $\overline{\text{M}}$ 03'30	9.02546 AU	morning rise	-3218 Feb 13 j 16:00	14° $\overline{\text{B}}$ 57'23	
direct	-3224 Aug 01 j 21:57	1° $\overline{\text{M}}$ 48'05		retrograde	-3218 May 31 j 23:56	23° $\overline{\text{B}}$ 09'53	
evening set	-3224 Nov 09 j 17:38	8° $\overline{\text{M}}$ 47'52		opposition	-3218 Aug 09 j 03:42	19° $\overline{\text{B}}$ 40'53	-1°-58'-14
				min. Earth dist.	-3218 Aug 09 j 07:50	19° $\overline{\text{B}}$ 40'03	8.18753 AU
conjunction	-3224 Nov 26 j 07:09	10° $\overline{\text{M}}$ 45'23	1°05'27	direct	-3218 Oct 14 j 21:36	16° $\overline{\text{B}}$ 16'52	
minimum elong	-3224 Nov 26 j 07:11	10° $\overline{\text{M}}$ 45'24	1°05'23	evening set	-3217 Jan 23 j 21:46	24° $\overline{\text{B}}$ 08'54	
max. Earth dist.	-3224 Nov 25 j 15:42	10° $\overline{\text{M}}$ 40'47	10.97160 AU				
morning rise	-3224 Dec 12 j 23:06	12° $\overline{\text{M}}$ 43'40		conjunction	-3217 Feb 10 j 08:01	26° $\overline{\text{B}}$ 23'51	-1°-46'-42
	-3223 Jan 02 j 05:32	15° $\overline{\text{M}}$		minimum elong	-3217 Feb 10 j 07:58	26° $\overline{\text{B}}$ 23'50	1°46'49

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodiens AG 7-Dez-2017 14:39, page 16

Attention, astronomical year style is used: The year -3217 in astronomical counting style is the year 3218 BCE in historical counting style.

max. Earth dist.	-3217 Feb 10 j 04:50	26° $\text{C}$ 22'49	10.12206 AU	conjunction	-3211 May 11 j 20:35	23° $\text{Y}$ 43'38	-1°-38'-59
morning rise	-3217 Feb 27 j 23:26	28° $\text{C}$ 40'30		minimum elong	-3211 May 11 j 20:39	23° $\text{Y}$ 43'39	1°38'58
	-3217 Mar 10 j 13:18	0° $\approx$		max. Earth dist.	-3211 May 12 j 12:32	23° $\text{Y}$ 48'52	9.94896 AU
retrograde	-3217 Jun 15 j 18:20	7° $\approx$ 03'44		morning rise	-3211 May 30 j 00:27	26° $\text{Y}$ 05'49	
opposition	-3217 Aug 23 j 08:29	3° $\approx$ 33'22	-2°-26'-39		-3211 Jul 01 j 11:05	0° $\text{B}$	
min. Earth dist.	-3217 Aug 23 j 09:18	3° $\approx$ 33'12	8.06268 AU	retrograde	-3211 Sep 11 j 11:01	4° $\text{B}$ 22'54	
direct	-3217 Oct 28 j 15:55	0° $\approx$ 07'51		opposition	-3211 Nov 16 j 19:28	0° $\text{B}$ 53'48	-1°-46'-59
evening set	-3216 Feb 07 j 10:33	8° $\approx$ 10'45		min. Earth dist.	-3211 Nov 16 j 07:20	0° $\text{B}$ 56'19	7.99360 AU
					-3211 Nov 27 j 16:52	30° $\text{R}$ $\text{Y}$	
conjunction	-3216 Feb 25 j 00:43	10° $\approx$ 28'33	-2°-6'-12	direct	-3210 Jan 22 j 20:54	27° $\text{Y}$ 23'19	
minimum elong	-3216 Feb 25 j 00:41	10° $\approx$ 28'32	2°06'19		-3210 Mar 18 j 20:42	0° $\text{B}$	
max. Earth dist.	-3216 Feb 25 j 02:10	10° $\approx$ 29'02	10.00805 AU	evening set	-3210 May 08 j 23:33	5° $\text{B}$ 42'38	
morning rise	-3216 Mar 13 j 19:35	12° $\approx$ 47'55					
	-3216 Mar 31 j 10:02	15° $\approx$		conjunction	-3210 May 27 j 03:57	8° $\text{B}$ 03'27	-1°-10'-49
retrograde	-3216 Jun 29 j 19:33	21° $\approx$ 19'31		minimum elong	-3210 May 27 j 04:00	8° $\text{B}$ 03'28	1°10'47
opposition	-3216 Sep 05 j 19:28	17° $\approx$ 48'10	-2°-46'-55	max. Earth dist.	-3210 May 27 j 20:04	8° $\text{B}$ 08'41	10.04471 AU
min. Earth dist.	-3216 Sep 05 j 16:35	17° $\approx$ 48'46	7.96294 AU	morning rise	-3210 Jun 14 j 06:19	10° $\text{B}$ 23'31	
	-3216 Oct 15 j 13:12	15° $\text{R}$ $\approx$			-3210 Jul 23 j 23:56	15° $\text{B}$	
direct	-3216 Nov 10 j 19:18	14° $\approx$ 21'13		retrograde	-3210 Sep 25 j 11:26	18° $\text{B}$ 28'30	
	-3216 Dec 06 j 19:46	15° $\approx$		opposition	-3210 Nov 30 j 21:39	15° $\text{B}$ 01'04	-1°-9'-6
evening set	-3215 Feb 21 j 10:40	22° $\approx$ 33'44		min. Earth dist.	-3210 Nov 30 j 09:02	15° $\text{B}$ 03'40	8.10246 AU
					-3210 Dec 01 j 02:52	15° $\text{R}$ $\text{B}$	
conjunction	-3215 Mar 11 j 04:41	24° $\approx$ 53'57	-2°-18'-20	direct	-3209 Feb 06 j 14:43	11° $\text{B}$ 31'01	
minimum elong	-3215 Mar 11 j 04:39	24° $\approx$ 53'57	2°18'25		-3209 Apr 12 j 13:47	15° $\text{B}$	
max. Earth dist.	-3215 Mar 11 j 10:37	24° $\approx$ 55'55	9.92276 AU	evening set	-3209 May 23 j 22:00	19° $\text{B}$ 43'08	
morning rise	-3215 Mar 29 j 02:42	27° $\approx$ 15'31					
	-3215 Apr 20 j 01:16	0° $\text{H}$		conjunction	-3209 Jun 11 j 00:45	22° $\text{B}$ 01'27	0°-39'-3
retrograde	-3215 Jul 15 j 00:07	5° $\text{H}$ 52'09		minimum elong	-3209 Jun 11 j 00:46	22° $\text{B}$ 01'28	0°38'59
opposition	-3215 Sep 20 j 10:45	2° $\text{H}$ 20'15	-2°-57'00	max. Earth dist.	-3209 Jun 11 j 16:36	22° $\text{B}$ 06'32	10.16638 AU
min. Earth dist.	-3215 Sep 20 j 04:31	2° $\text{H}$ 21'33	7.89481 AU	morning rise	-3209 Jun 29 j 00:09	24° $\text{B}$ 18'40	
	-3215 Oct 21 j 06:29	30° $\text{R}$ $\approx$			-3209 Aug 20 j 11:20	0° $\text{II}$	
direct	-3215 Nov 25 j 07:00	28° $\approx$ 52'00		retrograde	-3209 Oct 09 j 01:04	2° $\text{II}$ 10'45	
	-3215 Dec 29 j 22:21	0° $\text{H}$			-3209 Nov 28 j 23:28	30° $\text{R}$ $\text{B}$	
evening set	-3214 Mar 08 j 19:54	7° $\text{H}$ 12'03		opposition	-3209 Dec 14 j 16:08	28° $\text{B}$ 45'12	0°-28'-18
				min. Earth dist.	-3209 Dec 14 j 03:41	28° $\text{B}$ 47'43	8.23373 AU
conjunction	-3214 Mar 26 j 17:34	9° $\text{H}$ 34'06	-2°-21'-47	direct	-3208 Feb 21 j 01:58	25° $\text{B}$ 15'54	
minimum elong	-3214 Mar 26 j 17:34	9° $\text{H}$ 34'06	2°21'51		-3208 May 08 j 23:18	0° $\text{II}$	
max. Earth dist.	-3214 Mar 27 j 03:15	9° $\text{H}$ 37'19	9.87201 AU	evening set	-3208 Jun 06 j 09:35	3° $\text{II}$ 19'14	
morning rise	-3214 Apr 13 j 18:19	11° $\text{H}$ 57'10					
retrograde	-3214 Jul 30 j 04:43	20° $\text{H}$ 34'45		conjunction	-3208 Jun 24 j 09:15	5° $\text{II}$ 34'29	0°-5'-58
opposition	-3214 Oct 05 j 03:56	17° $\text{H}$ 02'49	-2°-55'-38	minimum elong	-3208 Jun 24 j 09:15	5° $\text{II}$ 34'29	0°05'53
min. Earth dist.	-3214 Oct 04 j 19:16	17° $\text{H}$ 04'38	7.86293 AU	behind sun begin	-3208 Jun 24 j 02:19	5° $\text{II}$ 32'19	
direct	-3214 Dec 10 j 01:13	13° $\text{H}$ 33'30		behind sun end	-3208 Jun 24 j 16:12	5° $\text{II}$ 36'39	
evening set	-3213 Mar 24 j 10:37	21° $\text{H}$ 58'15		max. Earth dist.	-3208 Jun 25 j 00:09	5° $\text{II}$ 39'10	10.30637 AU
				morning rise	-3208 Jul 12 j 04:31	7° $\text{II}$ 48'20	
conjunction	-3213 Apr 11 j 11:27	24° $\text{H}$ 21'21	-2°-16'00	asc. node	-3208 Aug 31 j 04:00	13° $\text{II}$ 11'04	
minimum elong	-3213 Apr 11 j 11:29	24° $\text{H}$ 21'22	2°16'02	retrograde	-3208 Oct 21 j 05:16	15° $\text{II}$ 27'37	
max. Earth dist.	-3213 Apr 12 j 00:07	24° $\text{H}$ 25'34	9.85935 AU	opposition	-3208 Dec 27 j 02:24	12° $\text{II}$ 04'00	0°12'40
morning rise	-3213 Apr 29 j 14:16	26° $\text{H}$ 45'04		min. Earth dist.	-3208 Dec 26 j 15:10	12° $\text{II}$ 06'15	8.37958 AU
	-3213 May 25 j 18:12	0° $\text{Y}$		direct	-3207 Mar 06 j 03:46	8° $\text{II}$ 35'44	
retrograde	-3213 Aug 14 j 05:50	5° $\text{Y}$ 19'23		evening set	-3207 Jun 20 j 09:16	16° $\text{II}$ 29'26	
opposition	-3213 Oct 19 j 20:47	1° $\text{Y}$ 47'57	-2°-42'-38				
min. Earth dist.	-3213 Oct 19 j 10:24	1° $\text{Y}$ 50'08	7.86953 AU	conjunction	-3207 Jul 08 j 04:39	18° $\text{II}$ 41'15	0°26'37
	-3213 Nov 11 j 09:21	30° $\text{R}$ $\text{H}$		minimum elong	-3207 Jul 08 j 04:37	18° $\text{II}$ 41'15	0°26'44
direct	-3213 Dec 24 j 23:22	28° $\text{H}$ 17'52		max. Earth dist.	-3207 Jul 08 j 17:37	18° $\text{II}$ 45'16	10.45650 AU
	-3212 Feb 06 j 01:38	0° $\text{Y}$		morning rise	-3207 Jul 25 j 18:56	20° $\text{II}$ 51'30	
evening set	-3212 Apr 08 j 02:33	6° $\text{Y}$ 43'59		retrograde	-3207 Nov 02 j 23:49	28° $\text{II}$ 18'44	
				opposition	-3206 Jan 09 j 04:46	24° $\text{II}$ 57'01	0°51'34
conjunction	-3212 Apr 26 j 05:47	9° $\text{Y}$ 07'15	-2°-1'-20	min. Earth dist.	-3206 Jan 08 j 19:52	24° $\text{II}$ 58'47	8.53186 AU
minimum elong	-3212 Apr 26 j 05:50	9° $\text{Y}$ 07'16	2°01'21	direct	-3206 Mar 19 j 21:01	21° $\text{II}$ 29'59	
max. Earth dist.	-3212 Apr 26 j 20:39	9° $\text{Y}$ 12'10	9.88565 AU	evening set	-3206 Jul 03 j 20:41	29° $\text{II}$ 13'48	
morning rise	-3212 May 14 j 09:43	11° $\text{Y}$ 30'40			-3206 Jul 10 j 05:55	0° $\text{B}$	
retrograde	-3212 Aug 28 j 00:36	19° $\text{Y}$ 57'55					
opposition	-3212 Nov 02 j 10:44	16° $\text{Y}$ 27'26	-2°-19'-4	conjunction	-3206 Jul 21 j 10:50	1° $\text{B}$ 22'03	0°56'51
min. Earth dist.	-3212 Nov 01 j 23:13	16° $\text{Y}$ 29'51	7.91413 AU	minimum elong	-3206 Jul 21 j 10:48	1° $\text{B}$ 22'02	0°56'59
direct	-3211 Jan 07 j 22:55	12° $\text{Y}$ 56'57		max. Earth dist.	-3206 Jul 21 j 20:42	1° $\text{B}$ 25'04	10.60874 AU
evening set	-3211 Apr 23 j 16:04	21° $\text{Y}$ 21'08		morning rise	-3206 Aug 07 j 19:43	3° $\text{B}$ 28'42	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 17

Attention, astronomical year style is used: The year -3206 in astronomical counting style is the year 3207 BCE in historical counting style.

retrograde	-3206 Nov 15 j 07:29	10° <del>5</del> 45'08		retrograde	-3199 Jan 21 j 20:09	19° <del>1</del> 17'03	
opposition	-3205 Jan 21 j 23:28	7° <del>5</del> 25'12	1°26'39	opposition	-3199 Apr 02 j 02:42	16° <del>1</del> 01'32	2°53'41
min. Earth dist.	-3205 Jan 21 j 17:06	7° <del>5</del> 26'26	8.68283 AU	min. Earth dist.	-3199 Apr 02 j 11:20	15° <del>1</del> 59'58	9.22511 AU
direct	-3205 Apr 02 j 06:21	3° <del>5</del> 59'29		direct	-3199 Jun 12 j 21:23	12° <del>1</del> 42'36	
evening set	-3205 Jul 16 j 20:02	11° <del>5</del> 33'38		evening set	-3199 Sep 22 j 19:14	19° <del>1</del> 39'04	
conjunction	-3205 Aug 03 j 04:38	13° <del>5</del> 38'24	1°23'36	conjunction	-3199 Oct 09 j 05:26	21° <del>1</del> 32'22	2°20'11
minimum elong	-3205 Aug 03 j 04:34	13° <del>5</del> 38'23	1°23'43	minimum elong	-3199 Oct 09 j 05:27	21° <del>1</del> 32'22	2°20'12
max. Earth dist.	-3205 Aug 03 j 10:39	13° <del>5</del> 40'13	10.75582 AU	max. Earth dist.	-3199 Oct 08 j 18:26	21° <del>1</del> 29'10	11.22580 AU
morning rise	-3205 Aug 20 j 08:08	15° <del>5</del> 41'38		morning rise	-3199 Oct 25 j 13:42	23° <del>1</del> 25'12	
retrograde	-3205 Nov 27 j 07:55	22° <del>5</del> 48'52			-3198 Jan 16 j 04:50	0° <del>1</del>	
opposition	-3204 Feb 03 j 11:12	19° <del>5</del> 30'25	1°56'40	retrograde	-3198 Feb 02 j 06:17	0° <del>1</del> 14'10	
min. Earth dist.	-3204 Feb 03 j 06:56	19° <del>5</del> 31'14	8.82540 AU		-3198 Feb 19 j 10:44	30° <del>1</del> 11'00	
direct	-3204 Apr 14 j 07:38	16° <del>5</del> 06'04		opposition	-3198 Apr 13 j 20:17	26° <del>1</del> 58'14	2°45'57
evening set	-3204 Jul 28 j 07:56	23° <del>5</del> 31'07		min. Earth dist.	-3198 Apr 14 j 06:38	26° <del>1</del> 56'21	9.22344 AU
				direct	-3198 Jun 24 j 09:48	23° <del>1</del> 39'50	
conjunction	-3204 Aug 14 j 11:11	25° <del>5</del> 32'43	1°45'58		-3198 Sep 28 j 15:54	0° <del>1</del>	
minimum elong	-3204 Aug 14 j 11:08	25° <del>5</del> 32'42	1°46'04	evening set	-3198 Oct 03 j 18:28	0° <del>1</del> 34'30	
max. Earth dist.	-3204 Aug 14 j 14:05	25° <del>5</del> 33'35	10.89109 AU				
morning rise	-3204 Aug 31 j 09:32	27° <del>5</del> 32'51		conjunction	-3198 Oct 20 j 03:57	2° <del>1</del> 27'52	2°11'17
	-3204 Sep 22 j 09:28	0° <del>1</del>		minimum elong	-3198 Oct 20 j 03:59	2° <del>1</del> 27'52	2°11'17
retrograde	-3204 Dec 08 j 02:38	4° <del>1</del> 32'34		max. Earth dist.	-3198 Oct 19 j 14:54	2° <del>1</del> 24'04	11.21014 AU
opposition	-3203 Feb 14 j 16:48	1° <del>1</del> 15'20	2°20'51	morning rise	-3198 Nov 05 j 12:29	4° <del>1</del> 21'01	
min. Earth dist.	-3203 Feb 14 j 14:40	1° <del>1</del> 15'44	8.95305 AU	retrograde	-3197 Feb 13 j 19:01	11° <del>1</del> 12'58	
	-3203 Mar 03 j 18:38	30° <del>1</del> 18'38		opposition	-3197 Apr 25 j 15:06	7° <del>1</del> 56'17	2°32'12
direct	-3203 Apr 26 j 22:39	27° <del>5</del> 52'19		min. Earth dist.	-3197 Apr 26 j 03:29	7° <del>1</del> 54'02	9.19341 AU
	-3203 Jun 18 j 15:55	0° <del>1</del>		direct	-3197 Jul 05 j 22:32	4° <del>1</del> 38'08	
evening set	-3203 Aug 09 j 09:49	5° <del>1</del> 09'10		evening set	-3197 Oct 14 j 17:45	11° <del>1</del> 32'31	
conjunction	-3203 Aug 26 j 08:08	7° <del>1</del> 08'00	2°03'25	conjunction	-3197 Oct 31 j 03:25	13° <del>1</del> 26'29	1°57'32
minimum elong	-3203 Aug 26 j 08:05	7° <del>1</del> 07'59	2°03'29	minimum elong	-3197 Oct 31 j 03:27	13° <del>1</del> 26'29	1°57'30
max. Earth dist.	-3203 Aug 26 j 08:24	7° <del>1</del> 08'05	11.00848 AU	max. Earth dist.	-3197 Oct 30 j 12:22	13° <del>1</del> 22'05	11.16674 AU
morning rise	-3203 Sep 12 j 01:42	9° <del>1</del> 05'30		morning rise	-3197 Nov 16 j 13:15	15° <del>1</del> 20'32	
	-3203 Nov 15 j 05:58	15° <del>1</del>		retrograde	-3196 Feb 25 j 11:08	22° <del>1</del> 17'03	
retrograde	-3203 Dec 19 j 16:17	15° <del>1</del> 59'29		opposition	-3196 May 06 j 12:01	18° <del>1</del> 59'20	2°12'45
	-3202 Jan 23 j 20:27	15° <del>1</del> 13'00		min. Earth dist.	-3196 May 07 j 01:35	18° <del>1</del> 56'51	9.13610 AU
opposition	-3202 Feb 26 j 17:32	12° <del>1</del> 43'10	2°38'46	direct	-3196 Jul 16 j 11:03	15° <del>1</del> 41'13	
min. Earth dist.	-3202 Feb 26 j 18:32	12° <del>1</del> 42'59	9.06018 AU	evening set	-3196 Oct 24 j 18:46	22° <del>1</del> 36'50	
direct	-3202 May 09 j 06:31	9° <del>1</del> 21'25					
	-3202 Aug 07 j 12:17	15° <del>1</del>		conjunction	-3196 Nov 10 j 05:36	24° <del>1</del> 31'57	1°39'16
evening set	-3202 Aug 21 j 03:06	16° <del>1</del> 31'13		minimum elong	-3196 Nov 10 j 05:39	24° <del>1</del> 31'58	1°39'13
conjunction	-3202 Sep 06 j 21:00	18° <del>1</del> 27'48	2°15'38	max. Earth dist.	-3196 Nov 09 j 14:26	24° <del>1</del> 27'30	11.09698 AU
minimum elong	-3202 Sep 06 j 20:58	18° <del>1</del> 27'47	2°15'42	morning rise	-3196 Nov 26 j 17:23	26° <del>1</del> 27'26	
max. Earth dist.	-3202 Sep 06 j 17:44	18° <del>1</del> 26'51	11.10311 AU		-3196 Dec 30 j 01:15	0° <del>1</del>	
morning rise	-3202 Sep 23 j 10:44	20° <del>1</del> 23'14		retrograde	-3195 Mar 08 j 10:01	3° <del>1</del> 30'13	
retrograde	-3202 Dec 31 j 03:28	27° <del>1</del> 13'19		opposition	-3195 May 18 j 12:36	0° <del>1</del> 11'14	1°48'01
opposition	-3201 Mar 10 j 14:44	23° <del>1</del> 57'39	2°50'13	min. Earth dist.	-3195 May 19 j 01:54	0° <del>1</del> 08'47	9.05332 AU
min. Earth dist.	-3201 Mar 10 j 19:12	23° <del>1</del> 56'49	9.14266 AU		-3195 May 21 j 01:37	30° <del>1</del> 18'00	
direct	-3201 May 21 j 07:21	20° <del>1</del> 37'01		direct	-3195 Jul 28 j 02:04	26° <del>1</del> 52'56	
evening set	-3201 Sep 01 j 13:13	27° <del>1</del> 41'02			-3195 Sep 29 j 11:56	0° <del>1</del>	
conjunction	-3201 Sep 18 j 03:28	29° <del>1</del> 35'57	2°22'29	evening set	-3195 Nov 04 j 23:27	3° <del>1</del> 51'21	
minimum elong	-3201 Sep 18 j 03:27	29° <del>1</del> 35'56	2°22'32	conjunction	-3195 Nov 21 j 12:11	5° <del>1</del> 48'08	1°16'54
max. Earth dist.	-3201 Sep 17 j 20:20	29° <del>1</del> 33'52	11.17185 AU	minimum elong	-3195 Nov 21 j 12:13	5° <del>1</del> 48'09	1°16'50
	-3201 Sep 21 j 14:17	0° <del>1</del>		max. Earth dist.	-3195 Nov 20 j 21:25	5° <del>1</del> 43'46	11.00304 AU
morning rise	-3201 Oct 04 j 14:30	1° <del>1</del> 29'56		morning rise	-3195 Dec 08 j 02:35	7° <del>1</del> 45'32	
retrograde	-3200 Jan 11 j 10:28	8° <del>1</del> 17'57		retrograde	-3194 Mar 20 j 17:00	14° <del>1</del> 56'11	
opposition	-3200 Mar 21 j 09:25	5° <del>1</del> 02'32	2°55'09	opposition	-3194 May 30 j 18:02	11° <del>1</del> 35'45	1°18'33
min. Earth dist.	-3200 Mar 21 j 16:33	5° <del>1</del> 01'14	9.19805 AU	min. Earth dist.	-3194 May 31 j 06:42	11° <del>1</del> 33'24	8.94786 AU
direct	-3200 Jun 01 j 03:48	1° <del>1</del> 42'51		direct	-3194 Aug 08 j 18:22	8° <del>1</del> 17'05	
evening set	-3200 Sep 11 j 18:03	8° <del>1</del> 42'27			-3194 Nov 13 j 13:51	15° <del>1</del>	
conjunction	-3200 Sep 28 j 05:45	10° <del>1</del> 36'15	2°23'58	evening set	-3194 Nov 16 j 10:05	15° <del>1</del> 19'56	
minimum elong	-3200 Sep 28 j 05:46	10° <del>1</del> 36'15	2°24'00	max. Earth dist.	-3194 Dec 02 j 10:05	17° <del>1</del> 14'18	10.88813 AU
max. Earth dist.	-3200 Sep 27 j 20:03	10° <del>1</del> 33'26	11.21302 AU	conjunction	-3194 Dec 03 j 01:10	17° <del>1</del> 18'49	0°51'01
morning rise	-3200 Oct 14 j 14:57	12° <del>1</del> 29'22		minimum elong	-3194 Dec 03 j 01:12	17° <del>1</del> 18'50	0°50'57
				morning rise	-3194 Dec 19 j 18:58	19° <del>1</del> 18'37	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 18

Attention, astronomical year style is used: The year -3193 in astronomical counting style is the year 3194 BCE in historical counting style.

retrograde	-3193 Apr 02 j 06:41	26° $\mathbb{M}$ 38'38		minimum elong	-3187 Feb 17 j 16:38	4° $\approx$ 17'24	1°58'13
opposition	-3193 Jun 12 j 05:13	23° $\mathbb{M}$ 16'37	0°45'05	max. Earth dist.	-3187 Feb 17 j 16:26	4° $\approx$ 17'20	10.05706 AU
min. Earth dist.	-3193 Jun 12 j 17:41	23° $\mathbb{M}$ 14'17	8.82343 AU	morning rise	-3187 Mar 07 j 10:01	6° $\approx$ 35'39	
direct	-3193 Aug 20 j 14:51	19° $\mathbb{M}$ 57'20			-3187 Jun 14 j 19:04	15° $\approx$	
evening set	-3193 Nov 28 j 04:25	27° $\mathbb{M}$ 06'19		retrograde	-3187 Jun 23 j 11:04	15° $\approx$ 04'02	
					-3187 Jul 02 j 01:24	15° $\approx$	
conjunction	-3193 Dec 14 j 22:24	29° $\mathbb{M}$ 07'43	0°22'24	opposition	-3187 Aug 30 j 15:35	11° $\approx$ 33'20	-2°-38'-45
minimum elong	-3193 Dec 14 j 22:25	29° $\mathbb{M}$ 07'43	0°22'19	min. Earth dist.	-3187 Aug 30 j 13:38	11° $\approx$ 33'44	8.00723 AU
max. Earth dist.	-3193 Dec 14 j 07:40	29° $\mathbb{M}$ 03'15	10.75637 AU	direct	-3187 Nov 04 j 16:54	8° $\approx$ 07'19	
	-3193 Dec 22 j 02:26	0° $\mathbb{Z}$			-3186 Feb 05 j 02:03	15° $\approx$	
morning rise	-3193 Dec 31 j 20:03	1° $\mathbb{Z}$ 10'17		evening set	-3186 Feb 15 j 00:03	16° $\approx$ 15'49	
retrograde	-3192 Apr 14 j 06:11	8° $\mathbb{Z}$ 41'02					
opposition	-3192 Jun 23 j 23:19	5° $\mathbb{Z}$ 17'22	0°08'39	conjunction	-3186 Mar 04 j 16:06	18° $\approx$ 34'58	-2°-13'-45
min. Earth dist.	-3192 Jun 24 j 11:00	5° $\mathbb{Z}$ 15'09	8.68470 AU	minimum elong	-3186 Mar 04 j 16:04	18° $\approx$ 34'57	2°13'51
direct	-3192 Aug 31 j 18:49	1° $\mathbb{Z}$ 57'15		max. Earth dist.	-3186 Mar 04 j 19:59	18° $\approx$ 36'15	9.96224 AU
desc. node	-3192 Sep 18 j 20:20	2° $\mathbb{Z}$ 14'25		morning rise	-3186 Mar 22 j 12:51	20° $\approx$ 55'37	
evening set	-3192 Dec 09 j 08:16	9° $\mathbb{Z}$ 13'57		retrograde	-3186 Jul 08 j 13:57	29° $\approx$ 30'30	
				opposition	-3186 Sep 14 j 05:33	25° $\approx$ 59'15	-2°-53'-37
conjunction	-3192 Dec 26 j 05:36	11° $\mathbb{Z}$ 18'12	0°-8'-3	min. Earth dist.	-3186 Sep 14 j 00:46	26° $\approx$ 00'15	7.92833 AU
minimum elong	-3192 Dec 26 j 05:35	11° $\mathbb{Z}$ 18'11	0°08'10	direct	-3186 Nov 19 j 02:28	22° $\approx$ 32'02	
behind sun begin	-3192 Dec 25 j 23:18	11° $\mathbb{Z}$ 16'16			-3185 Feb 23 j 22:00	0° $\mathbb{H}$	
behind sun end	-3192 Dec 26 j 11:52	11° $\mathbb{Z}$ 20'07		evening set	-3185 Mar 02 j 05:55	0° $\mathbb{H}$ 49'00	
max. Earth dist.	-3192 Dec 25 j 16:55	11° $\mathbb{Z}$ 14'17	10.61273 AU				
morning rise	-3191 Jan 12 j 07:11	13° $\mathbb{Z}$ 23'49		conjunction	-3185 Mar 20 j 01:46	3° $\mathbb{H}$ 10'12	-2°-21'-13
retrograde	-3191 Apr 27 j 15:56	21° $\mathbb{Z}$ 06'24		minimum elong	-3185 Mar 20 j 01:46	3° $\mathbb{H}$ 10'12	2°21'17
opposition	-3191 Jul 07 j 01:02	17° $\mathbb{Z}$ 41'02	0°-29'-24	max. Earth dist.	-3185 Mar 20 j 09:58	3° $\mathbb{H}$ 12'56	9.89943 AU
min. Earth dist.	-3191 Jul 07 j 10:39	17° $\mathbb{Z}$ 39'11	8.53735 AU	morning rise	-3185 Apr 07 j 01:24	5° $\mathbb{H}$ 32'37	
direct	-3191 Sep 13 j 05:08	14° $\mathbb{Z}$ 19'57		retrograde	-3185 Jul 23 j 18:06	14° $\mathbb{H}$ 10'10	
evening set	-3191 Dec 21 j 23:33	21° $\mathbb{Z}$ 45'48		opposition	-3185 Sep 28 j 22:22	10° $\mathbb{H}$ 38'47	-2°-57'-28
				min. Earth dist.	-3185 Sep 28 j 14:41	10° $\mathbb{H}$ 40'23	7.88362 AU
conjunction	-3190 Jan 08 j 00:32	23° $\mathbb{Z}$ 53'06	0°-38'-54	direct	-3185 Dec 03 j 18:57	7° $\mathbb{H}$ 10'31	
minimum elong	-3190 Jan 08 j 00:30	23° $\mathbb{Z}$ 53'06	0°39'02	evening set	-3184 Mar 16 j 18:42	15° $\mathbb{H}$ 33'16	
max. Earth dist.	-3190 Jan 07 j 14:51	23° $\mathbb{Z}$ 50'05	10.46345 AU				
morning rise	-3190 Jan 25 j 06:08	26° $\mathbb{Z}$ 01'58		conjunction	-3184 Apr 03 j 18:03	17° $\mathbb{H}$ 55'51	-2°-19'-36
	-3190 Mar 01 j 04:06	0° $\mathbb{Z}$		minimum elong	-3184 Apr 03 j 18:04	17° $\mathbb{H}$ 55'51	2°19'39
retrograde	-3190 May 11 j 12:12	3° $\mathbb{Z}$ 57'00		max. Earth dist.	-3184 Apr 04 j 06:08	17° $\mathbb{H}$ 59'52	9.87290 AU
opposition	-3190 Jul 20 j 10:49	0° $\mathbb{Z}$ 29'59	-1°-7'-25	morning rise	-3184 Apr 21 j 19:58	20° $\mathbb{H}$ 19'14	
min. Earth dist.	-3190 Jul 20 j 17:28	0° $\mathbb{Z}$ 28'40	8.38819 AU	retrograde	-3184 Aug 06 j 20:30	28° $\mathbb{H}$ 55'14	
	-3190 Jul 26 j 20:22	30° $\mathbb{R}$ $\mathbb{Z}$		opposition	-3184 Oct 12 j 15:45	25° $\mathbb{H}$ 24'08	-2°-49'-38
direct	-3190 Sep 26 j 00:17	27° $\mathbb{Z}$ 07'47		min. Earth dist.	-3184 Oct 12 j 05:33	25° $\mathbb{H}$ 26'16	7.87576 AU
	-3190 Nov 22 j 18:05	0° $\mathbb{Z}$		direct	-3184 Dec 17 j 15:40	21° $\mathbb{H}$ 55'00	
evening set	-3189 Jan 04 j 03:41	4° $\mathbb{Z}$ 43'57			-3183 Mar 29 j 19:31	0° $\mathbb{Y}$	
				evening set	-3183 Apr 01 j 10:27	0° $\mathbb{Y}$ 20'23	
conjunction	-3189 Jan 21 j 08:22	6° $\mathbb{Z}$ 54'27	-1°-8'-46				
minimum elong	-3189 Jan 21 j 08:19	6° $\mathbb{Z}$ 54'26	1°08'54	conjunction	-3183 Apr 19 j 12:43	2° $\mathbb{Y}$ 43'32	-2°-8'-51
max. Earth dist.	-3189 Jan 21 j 01:28	6° $\mathbb{Z}$ 52'15	10.31574 AU	minimum elong	-3183 Apr 19 j 12:46	2° $\mathbb{Y}$ 43'33	2°08'51
morning rise	-3189 Feb 07 j 18:02	9° $\mathbb{Z}$ 06'35		max. Earth dist.	-3183 Apr 20 j 03:28	2° $\mathbb{Y}$ 48'26	9.88375 AU
retrograde	-3189 May 25 j 19:13	17° $\mathbb{Z}$ 14'00		morning rise	-3183 May 07 j 16:10	5° $\mathbb{Y}$ 07'01	
opposition	-3189 Aug 03 j 04:54	13° $\mathbb{Z}$ 45'29	-1°-43'-15	retrograde	-3183 Aug 21 j 18:36	13° $\mathbb{Y}$ 37'29	
min. Earth dist.	-3189 Aug 03 j 08:32	13° $\mathbb{Z}$ 44'46	8.24471 AU	opposition	-3183 Oct 27 j 07:09	10° $\mathbb{Y}$ 07'06	-2°-30'-39
direct	-3189 Oct 09 j 04:05	10° $\mathbb{Z}$ 22'04		min. Earth dist.	-3183 Oct 26 j 19:29	10° $\mathbb{Y}$ 09'33	7.90412 AU
evening set	-3188 Jan 17 j 21:22	18° $\mathbb{Z}$ 09'16		direct	-3182 Jan 01 j 14:02	6° $\mathbb{Y}$ 37'24	
				evening set	-3182 Apr 17 j 01:36	15° $\mathbb{Y}$ 02'19	
conjunction	-3188 Feb 04 j 05:44	20° $\mathbb{Z}$ 22'53	-1°-35'-49				
minimum elong	-3188 Feb 04 j 05:41	20° $\mathbb{Z}$ 22'52	1°35'57	conjunction	-3182 May 05 j 05:46	17° $\mathbb{Y}$ 25'08	-1°-49'-46
max. Earth dist.	-3188 Feb 04 j 01:51	20° $\mathbb{Z}$ 21'38	10.17750 AU	minimum elong	-3182 May 05 j 05:50	17° $\mathbb{Y}$ 25'10	1°49'45
morning rise	-3188 Feb 21 j 19:20	22° $\mathbb{Z}$ 38'12		max. Earth dist.	-3182 May 05 j 21:49	17° $\mathbb{Y}$ 30'26	9.92990 AU
	-3188 May 06 j 07:04	0° $\approx$		morning rise	-3182 May 23 j 09:38	19° $\mathbb{Y}$ 47'50	
retrograde	-3188 Jun 08 j 11:43	0° $\approx$ 57'05		retrograde	-3182 Sep 05 j 10:28	28° $\mathbb{Y}$ 09'32	
	-3188 Jul 11 j 20:31	30° $\mathbb{R}$ $\mathbb{Z}$		opposition	-3182 Nov 10 j 18:25	24° $\mathbb{Y}$ 40'20	-2°-2'-7
opposition	-3188 Aug 16 j 06:48	27° $\mathbb{Z}$ 27'19	-2°-14'-32	min. Earth dist.	-3182 Nov 10 j 06:12	24° $\mathbb{Y}$ 42'53	7.96607 AU
min. Earth dist.	-3188 Aug 16 j 07:39	27° $\mathbb{Z}$ 27'08	8.11502 AU	direct	-3181 Jan 16 j 12:28	21° $\mathbb{Y}$ 10'25	
direct	-3188 Oct 21 j 16:44	24° $\mathbb{Z}$ 02'36		evening set	-3181 May 02 j 12:23	29° $\mathbb{Y}$ 31'59	
	-3187 Jan 15 j 00:29	0° $\approx$			-3181 May 06 j 03:40	0° $\mathbb{B}$	
evening set	-3187 Jan 31 j 04:32	2° $\approx$ 00'52					
				conjunction	-3181 May 20 j 17:06	1° $\mathbb{B}$ 53'35	-1°-23'-57
conjunction	-3187 Feb 17 j 16:42	4° $\approx$ 17'25	-1°-58'-6	minimum elong	-3181 May 20 j 17:09	1° $\mathbb{B}$ 53'36	1°23'55

# Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodiens AG 7-Dez-2017 14:39, page 19

Attention, astronomical year style is used: The year -3181 in astronomical counting style is the year 3182 BCE in historical counting style.

max. Earth dist.	-3181 May 21 j 09:30	1°8'58"56	10.00828 AU	minimum elong	-3175 Aug 09 j 11:46	20°33'24	1°36'48
morning rise	-3181 Jun 07 j 20:06	4°8'14"36		max. Earth dist.	-3175 Aug 09 j 16:19	20°34'46	10.81733 AU
retrograde	-3181 Sep 19 j 16:33	12°8'25"14		morning rise	-3175 Aug 26 j 12:24	22°35'02	
opposition	-3181 Nov 25 j 00:05	8°8'57"31	-1°-26'-30	retrograde	-3175 Dec 03 j 08:10	29°38'19	
min. Earth dist.	-3181 Nov 24 j 12:09	8°8'59"59	8.05833 AU	opposition	-3174 Feb 09 j 17:03	26°20'05	2°11'01
direct	-3180 Jan 31 j 08:20	5°8'27"43		min. Earth dist.	-3174 Feb 09 j 14:58	26°20'29	8.88199 AU
evening set	-3180 May 16 j 15:28	13°8'43"19		direct	-3174 Apr 21 j 17:55	22°55'56	
	-3180 May 26 j 16:01	15°8		evening set	-3174 Aug 02 j 02:11	0°8	
					-3174 Aug 04 j 12:23	0°8'16"48	
conjunction	-3180 Jun 03 j 19:10	16°8'02"50	0°-53'-31	conjunction	-3174 Aug 21 j 12:51	2°8'16"59	1°56'23
minimum elong	-3180 Jun 03 j 19:13	16°8'02"51	0°53'27	minimum elong	-3174 Aug 21 j 12:48	2°8'16"58	1°56'29
max. Earth dist.	-3180 Jun 04 j 10:49	16°8'07"53	10.11462 AU	max. Earth dist.	-3174 Aug 21 j 13:40	2°8'17"14	10.94171 AU
morning rise	-3180 Jun 21 j 20:00	18°8'21"24		morning rise	-3174 Sep 07 j 08:37	4°8'15"47	
retrograde	-3180 Oct 02 j 11:33	26°8'19"35		retrograde	-3174 Dec 14 j 22:28	11°8'12"31	
opposition	-3180 Dec 07 j 22:36	22°8'53"32	0°-46'-39	opposition	-3173 Feb 21 j 20:02	7°8'55"17	2°31'46
min. Earth dist.	-3180 Dec 07 j 11:30	22°8'55"48	8.17577 AU	min. Earth dist.	-3173 Feb 21 j 20:17	7°8'55"15	8.99830 AU
direct	-3179 Feb 13 j 23:16	19°8'24"10		direct	-3173 May 04 j 06:48	4°8'32"23	
evening set	-3179 May 31 j 08:48	27°8'31"50		evening set	-3173 Aug 16 j 09:21	11°8'45"39	
conjunction	-3179 Jun 18 j 09:58	29°8'48"33	0°-20'-43	conjunction	-3173 Sep 02 j 05:08	13°8'43"19	2°10'57
minimum elong	-3179 Jun 18 j 09:59	29°8'48"34	0°20'38	minimum elong	-3173 Sep 02 j 05:05	13°8'43"18	2°11'01
max. Earth dist.	-3179 Jun 18 j 23:45	29°8'52"55	10.24257 AU	max. Earth dist.	-3173 Sep 02 j 02:57	13°8'42"41	11.04760 AU
	-3179 Jun 19 j 22:00	0°II			-3173 Sep 13 j 03:09	15°8	
morning rise	-3179 Jul 06 j 07:20	2°II'04"02		morning rise	-3173 Sep 18 j 20:43	15°8'39"46	
retrograde	-3179 Oct 15 j 19:29	9°II'49"20		retrograde	-3173 Dec 26 j 10:57	22°8'31"42	
opposition	-3179 Dec 21 j 13:00	6°II'25"03	0°-5'-24	opposition	-3172 Mar 04 j 18:29	19°8'15"14	2°46'06
min. Earth dist.	-3179 Dec 21 j 02:54	6°II'27"05	8.31135 AU	min. Earth dist.	-3172 Mar 04 j 20:25	19°8'14"52	9.09400 AU
asc. node	-3178 Feb 09 j 15:21	3°II'14"32		direct	-3172 May 15 j 11:20	15°8'53"34	
direct	-3178 Feb 28 j 06:44	2°II'56"22		evening set	-3172 Aug 26 j 22:20	23°8'00"19	
evening set	-3178 Jun 14 j 14:33	10°II'54"51					
conjunction	-3178 Jul 02 j 11:54	13°II'08"19	0°12'23	conjunction	-3172 Sep 12 j 14:20	24°8'56"02	2°20'11
minimum elong	-3178 Jul 02 j 11:53	13°II'08"19	0°12'29	minimum elong	-3172 Sep 12 j 14:19	24°8'56"02	2°20'15
behind sun begin	-3178 Jul 02 j 07:16	13°II'06"53		max. Earth dist.	-3172 Sep 12 j 10:19	24°8'54"52	11.13125 AU
behind sun end	-3178 Jul 02 j 16:31	13°II'09"45		morning rise	-3172 Sep 29 j 02:31	26°8'50"42	
max. Earth dist.	-3178 Jul 02 j 23:33	13°II'11"57	10.38451 AU		-3172 Oct 28 j 16:54	0°8	
morning rise	-3178 Jul 20 j 04:43	15°II'20"19		retrograde	-3171 Jan 05 j 19:56	3°8'39"35	
retrograde	-3178 Oct 28 j 17:43	22°II'53"13		opposition	-3171 Mar 16 j 13:54	0°8'23"36	2°53'54
opposition	-3177 Jan 03 j 19:21	19°II'30"38	0°34'42	min. Earth dist.	-3171 Mar 16 j 18:06	0°8'22"50	9.16574 AU
min. Earth dist.	-3177 Jan 03 j 10:15	19°II'32"27	8.45726 AU		-3171 Mar 21 j 22:22	30°8'8	
direct	-3177 Mar 14 j 05:45	16°II'02"55		direct	-3171 May 27 j 08:28	27°8'03"05	
evening set	-3177 Jun 28 j 07:45	23°II'51"34		evening set	-3171 Jul 29 j 10:48	0°8	
					-3171 Sep 07 j 05:11	4°8'04"37	
conjunction	-3177 Jul 16 j 00:22	26°II'01"32	0°43'49	conjunction	-3171 Sep 23 j 18:05	5°8'58"54	2°24'02
minimum elong	-3177 Jul 16 j 00:20	26°II'01"32	0°43'56	minimum elong	-3171 Sep 23 j 18:04	5°8'58"54	2°24'05
max. Earth dist.	-3177 Jul 16 j 10:01	26°II'04"31	10.53252 AU	max. Earth dist.	-3171 Sep 23 j 11:36	5°8'57"01	11.18981 AU
morning rise	-3177 Aug 02 j 11:54	28°II'09"55		morning rise	-3171 Oct 10 j 03:53	7°8'52"22	
	-3177 Aug 18 j 03:11	0°8		retrograde	-3170 Jan 17 j 04:35	14°8'39"56	
retrograde	-3177 Nov 10 j 06:14	5°8'31"30		opposition	-3170 Mar 28 j 07:36	11°8'24"11	2°55'13
opposition	-3176 Jan 16 j 17:42	2°8'10"31	1°11'42	min. Earth dist.	-3170 Mar 28 j 14:37	11°8'22"54	9.21123 AU
min. Earth dist.	-3176 Jan 16 j 10:02	2°8'12"01	8.60567 AU	direct	-3170 Jun 08 j 02:15	8°8'04"40	
	-3176 Feb 15 j 22:35	30°8'8		evening set	-3170 Sep 18 j 07:34	15°8'02"16	
direct	-3176 Mar 26 j 19:35	28°II'43"55					
	-3176 May 05 j 07:31	0°8		conjunction	-3170 Oct 04 j 18:15	16°8'55"43	2°22'33
evening set	-3176 Jul 10 j 12:41	6°8'22"45		minimum elong	-3170 Oct 04 j 18:16	16°8'55"43	2°22'36
conjunction	-3176 Jul 28 j 00:03	8°8'29"12	1°12'16	max. Earth dist.	-3170 Oct 04 j 08:39	16°8'52"56	11.22158 AU
minimum elong	-3176 Jul 28 j 00:00	8°8'29"12	1°12'23	morning rise	-3170 Oct 21 j 02:54	18°8'48"36	
max. Earth dist.	-3176 Jul 28 j 07:43	8°8'31"32	10.67905 AU	retrograde	-3169 Jan 28 j 12:05	25°8'36"32	
morning rise	-3176 Aug 14 j 06:00	10°8'34"05		opposition	-3169 Apr 09 j 00:36	22°8'20"41	2°50'12
retrograde	-3176 Nov 21 j 11:14	17°8'45"41		min. Earth dist.	-3169 Apr 09 j 09:36	22°8'19"03	9.22913 AU
opposition	-3175 Jan 28 j 08:32	14°8'26"11	1°44'08	direct	-3169 Jun 19 j 15:59	19°8'01"59	
min. Earth dist.	-3175 Jan 28 j 03:30	14°8'27"10	8.74936 AU	evening set	-3169 Sep 29 j 07:02	25°8'57"03	
direct	-3175 Apr 08 j 23:21	11°8'00"47					
evening set	-3175 Jul 23 j 05:58	18°8'30"15		conjunction	-3169 Oct 15 j 16:40	27°8'50"14	2°15'53
				minimum elong	-3169 Oct 15 j 16:42	27°8'50"14	2°15'54
conjunction	-3175 Aug 09 j 11:49	20°8'33"25	1°36'41	max. Earth dist.	-3169 Oct 15 j 05:34	27°8'47"01	11.22551 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), AstroDienst AG 7-Dez-2017 14:39, page 20

Attention, astronomical year style is used: The year -3169 in astronomical counting style is the year 3170 BCE in historical counting style.

morning rise	-3169 Nov 01 j 01:05	29° $\mathbb{M}$ 43'07		conjunction	-3163 Dec 20 j 22:57	5° $\mathcal{Z}$ 56'13	0°06'02
	-3169 Nov 03 j 12:51	0° $\mathcal{Z}$		minimum elong	-3163 Dec 20 j 22:58	5° $\mathcal{Z}$ 56'14	0°05'57
retrograde	-3168 Feb 09 j 00:11	6° $\mathcal{Z}$ 33'07		behind sun begin	-3163 Dec 20 j 16:14	5° $\mathcal{Z}$ 54'12	
opposition	-3168 Apr 19 j 18:06	3° $\mathcal{Z}$ 16'52	2°39'03	behind sun end	-3163 Dec 21 j 05:41	5° $\mathcal{Z}$ 58'16	
min. Earth dist.	-3168 Apr 20 j 04:03	3° $\mathcal{Z}$ 15'04	9.21869 AU	max. Earth dist.	-3163 Dec 20 j 09:27	5° $\mathcal{Z}$ 52'07	10.71173 AU
	-3168 Jun 25 j 03:52	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-3162 Jan 06 j 22:23	7° $\mathcal{Z}$ 59'59	
direct	-3168 Jun 30 j 06:03	29° $\mathbb{M}$ 58'46		desc. node	-3162 Mar 04 j 20:09	13° $\mathcal{Z}$ 45'12	
	-3168 Jul 05 j 06:50	0° $\mathcal{Z}$		retrograde	-3162 Apr 21 j 21:28	15° $\mathcal{Z}$ 35'29	
evening set	-3168 Oct 09 j 05:41	6° $\mathcal{Z}$ 52'42		opposition	-3162 Jul 01 j 09:25	12° $\mathcal{Z}$ 11'37	0°-11'-53
				min. Earth dist.	-3162 Jul 01 j 19:51	12° $\mathcal{Z}$ 09'38	8.63695 AU
conjunction	-3168 Oct 25 j 15:14	8° $\mathcal{Z}$ 46'13	2°04'15	direct	-3162 Sep 07 j 20:03	8° $\mathcal{Z}$ 51'42	
minimum elong	-3168 Oct 25 j 15:16	8° $\mathcal{Z}$ 46'14	2°04'13	evening set	-3162 Dec 16 j 12:28	16° $\mathcal{Z}$ 11'44	
max. Earth dist.	-3168 Oct 25 j 03:25	8° $\mathcal{Z}$ 42'47	11.20130 AU				
morning rise	-3168 Nov 11 j 00:12	10° $\mathcal{Z}$ 39'39		conjunction	-3161 Jan 02 j 11:24	18° $\mathcal{Z}$ 17'10	0°-24'-46
retrograde	-3167 Feb 19 j 15:05	17° $\mathcal{Z}$ 33'20		minimum elong	-3161 Jan 02 j 11:23	18° $\mathcal{Z}$ 17'10	0°24'53
opposition	-3167 May 01 j 13:25	14° $\mathcal{Z}$ 16'25	2°22'04	max. Earth dist.	-3161 Jan 01 j 22:37	18° $\mathcal{Z}$ 13'13	10.56239 AU
min. Earth dist.	-3167 May 02 j 00:14	14° $\mathcal{Z}$ 14'27	9.18019 AU	morning rise	-3161 Jan 19 j 15:00	20° $\mathcal{Z}$ 24'06	
direct	-3167 Jul 11 j 16:38	10° $\mathcal{Z}$ 58'42		retrograde	-3161 May 05 j 10:45	28° $\mathcal{Z}$ 11'46	
evening set	-3167 Oct 20 j 05:22	17° $\mathcal{Z}$ 52'59		opposition	-3161 Jul 14 j 14:26	24° $\mathcal{Z}$ 46'09	0°-50'00
				min. Earth dist.	-3161 Jul 14 j 23:40	24° $\mathcal{Z}$ 44'22	8.48488 AU
conjunction	-3167 Nov 05 j 15:32	19° $\mathcal{Z}$ 47'20	1°47'57	direct	-3161 Sep 20 j 10:44	21° $\mathcal{Z}$ 25'01	
minimum elong	-3167 Nov 05 j 15:35	19° $\mathcal{Z}$ 47'21	1°47'54	evening set	-3161 Dec 29 j 09:31	28° $\mathcal{Z}$ 54'55	
max. Earth dist.	-3167 Nov 05 j 02:10	19° $\mathcal{Z}$ 43'26	11.14975 AU		-3160 Jan 07 j 02:32	0° $\mathcal{Z}$	
morning rise	-3167 Nov 22 j 02:08	21° $\mathcal{Z}$ 41'54					
retrograde	-3166 Mar 03 j 10:20	28° $\mathcal{Z}$ 40'54		conjunction	-3160 Jan 15 j 12:08	1° $\mathcal{Z}$ 03'31	0°-55'-12
opposition	-3166 May 13 j 11:58	25° $\mathcal{Z}$ 23'02	1°59'37	minimum elong	-3160 Jan 15 j 12:06	1° $\mathcal{Z}$ 03'31	0°55'19
min. Earth dist.	-3166 May 14 j 00:10	25° $\mathcal{Z}$ 20'48	9.11497 AU	max. Earth dist.	-3160 Jan 15 j 01:42	1° $\mathcal{Z}$ 00'14	10.40947 AU
direct	-3166 Jul 23 j 04:55	22° $\mathcal{Z}$ 05'25		morning rise	-3160 Feb 01 j 19:49	3° $\mathcal{Z}$ 13'44	
evening set	-3166 Oct 31 j 07:48	29° $\mathcal{Z}$ 01'35		retrograde	-3160 May 18 j 11:01	11° $\mathcal{Z}$ 13'56	
	-3166 Nov 08 j 16:38	0° $\mathbb{M}$		opposition	-3160 Jul 27 j 03:45	7° $\mathcal{Z}$ 46'35	-1°-26'-59
				min. Earth dist.	-3160 Jul 27 j 10:49	7° $\mathcal{Z}$ 45'12	8.33358 AU
conjunction	-3166 Nov 16 j 19:21	0° $\mathbb{M}$ 57'18	1°27'22	direct	-3160 Oct 02 j 10:23	4° $\mathcal{Z}$ 24'06	
minimum elong	-3166 Nov 16 j 19:24	0° $\mathbb{M}$ 57'19	1°27'18	evening set	-3159 Jan 10 j 19:31	12° $\mathcal{Z}$ 04'46	
max. Earth dist.	-3166 Nov 16 j 04:45	0° $\mathbb{M}$ 53'00	11.07247 AU				
morning rise	-3166 Dec 03 j 08:29	2° $\mathbb{M}$ 53'31		conjunction	-3159 Jan 28 j 01:58	14° $\mathcal{Z}$ 16'34	-1°-23'-42
retrograde	-3165 Mar 15 j 12:11	9° $\mathbb{M}$ 59'25		minimum elong	-3159 Jan 28 j 01:55	14° $\mathcal{Z}$ 16'33	1°23'49
opposition	-3165 May 25 j 14:35	6° $\mathbb{M}$ 40'20	1°32'14	max. Earth dist.	-3159 Jan 27 j 19:21	14° $\mathcal{Z}$ 14'27	10.26110 AU
min. Earth dist.	-3165 May 26 j 03:27	6° $\mathbb{M}$ 37'58	9.02497 AU	morning rise	-3159 Feb 14 j 13:34	16° $\mathcal{Z}$ 30'04	
direct	-3165 Aug 03 j 20:24	3° $\mathbb{M}$ 22'32		retrograde	-3159 Jun 01 j 21:32	24° $\mathcal{Z}$ 42'23	
evening set	-3165 Nov 11 j 15:02	10° $\mathbb{M}$ 22'11		opposition	-3159 Aug 10 j 01:05	21° $\mathcal{Z}$ 13'26	-2°00'-36
				min. Earth dist.	-3159 Aug 10 j 04:51	21° $\mathcal{Z}$ 12'40	8.19135 AU
conjunction	-3165 Nov 28 j 04:49	12° $\mathbb{M}$ 19'44	1°03'02	direct	-3159 Oct 15 j 18:43	17° $\mathcal{Z}$ 49'28	
minimum elong	-3165 Nov 28 j 04:51	12° $\mathbb{M}$ 19'44	1°02'57	evening set	-3158 Jan 24 j 19:13	25° $\mathcal{Z}$ 41'20	
max. Earth dist.	-3165 Nov 27 j 14:26	12° $\mathbb{M}$ 15'27	10.97161 AU				
morning rise	-3165 Dec 14 j 20:55	14° $\mathbb{M}$ 18'03		conjunction	-3158 Feb 11 j 05:34	27° $\mathcal{Z}$ 56'14	-1°-48'-23
	-3165 Dec 20 j 22:12	15° $\mathbb{M}$		minimum elong	-3158 Feb 11 j 05:31	27° $\mathcal{Z}$ 56'13	1°48'30
retrograde	-3164 Mar 26 j 20:55	21° $\mathbb{M}$ 32'23		max. Earth dist.	-3158 Feb 11 j 02:58	27° $\mathcal{Z}$ 55'24	10.12578 AU
opposition	-3164 Jun 05 j 22:08	18° $\mathbb{M}$ 11'51	1°00'33		-3158 Feb 27 j 04:40	0° $\approx$	
min. Earth dist.	-3164 Jun 06 j 10:32	18° $\mathbb{M}$ 09'33	8.91282 AU	morning rise	-3158 Feb 28 j 20:55	0° $\approx$ 12'49	
	-3164 Aug 03 j 08:26	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-3158 Jun 16 j 16:35	8° $\approx$ 35'51	
direct	-3164 Aug 14 j 15:30	14° $\mathbb{M}$ 53'35		opposition	-3158 Aug 24 j 05:38	5° $\approx$ 05'33	-2°-28'-24
	-3164 Aug 25 j 20:28	15° $\mathbb{M}$		min. Earth dist.	-3158 Aug 24 j 05:55	5° $\approx$ 05'30	8.06644 AU
evening set	-3164 Nov 22 j 04:56	21° $\mathbb{M}$ 58'22		direct	-3158 Oct 29 j 12:42	1° $\approx$ 40'06	
				evening set	-3157 Feb 08 j 08:03	9° $\approx$ 42'51	
conjunction	-3164 Dec 08 j 21:28	23° $\mathbb{M}$ 58'12	0°35'37				
minimum elong	-3164 Dec 08 j 21:29	23° $\mathbb{M}$ 58'12	0°35'32	conjunction	-3157 Feb 25 j 22:16	12° $\approx$ 00'37	-2°-7'-21
max. Earth dist.	-3164 Dec 08 j 07:50	23° $\mathbb{M}$ 54'06	10.85005 AU	minimum elong	-3157 Feb 25 j 22:13	12° $\approx$ 00'36	2°07'27
morning rise	-3164 Dec 25 j 16:58	25° $\mathbb{M}$ 59'02		max. Earth dist.	-3157 Feb 25 j 23:37	12° $\approx$ 01'03	10.01169 AU
	-3163 Jan 31 j 22:00	0° $\mathcal{Z}$		morning rise	-3157 Mar 15 j 17:08	14° $\approx$ 19'55	
retrograde	-3163 Apr 08 j 16:22	3° $\mathcal{Z}$ 23'18			-3157 Mar 20 j 22:37	15° $\approx$	
opposition	-3163 Jun 18 j 12:08	0° $\mathcal{Z}$ 01'09	0°25'27	retrograde	-3157 Jul 01 j 17:15	22° $\approx$ 51'16	
	-3163 Jun 18 j 18:12	30° $\mathbb{R}$ $\mathbb{M}$		opposition	-3157 Sep 07 j 16:22	19° $\approx$ 20'00	-2°-47'-56
min. Earth dist.	-3163 Jun 18 j 23:25	29° $\mathbb{M}$ 59'01	8.78187 AU	min. Earth dist.	-3157 Sep 07 j 13:22	19° $\approx$ 20'37	7.96653 AU
direct	-3163 Aug 26 j 15:32	26° $\mathbb{M}$ 42'11		direct	-3157 Nov 12 j 16:07	15° $\approx$ 53'05	
	-3163 Oct 29 j 13:15	0° $\mathcal{Z}$		evening set	-3156 Feb 23 j 08:12	24° $\approx$ 05'30	
evening set	-3163 Dec 04 j 03:23	3° $\mathcal{Z}$ 53'44					
				conjunction	-3156 Mar 12 j 02:10	26° $\approx$ 25'41	-2°-18'-51

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 21

Attention, astronomical year style is used: The year -3156 in astronomical counting style is the year 3157 BCE in historical counting style.

minimum elong	-3156 Mar 12 j 02:09	26° <del>25</del> '40	2°18'56	evening set	-3150 May 24 j 18:27	21° <del>8</del> '43	
max. Earth dist.	-3156 Mar 12 j 07:18	26° <del>27</del> '22	9.92622 AU				
morning rise	-3156 Mar 30 j 00:15	28° <del>47</del> '11		conjunction	-3150 Jun 11 j 21:15	23° <del>8</del> '31'01	0°-36'-41
	-3156 Apr 08 j 11:51	0° <del>8</del>		minimum elong	-3150 Jun 11 j 21:16	23° <del>8</del> '31'02	0°36'36
retrograde	-3156 Jul 15 j 21:14	7° <del>8</del> '23'31		max. Earth dist.	-3150 Jun 12 j 13:28	23° <del>8</del> '36'13	10.16663 AU
opposition	-3156 Sep 21 j 07:25	3° <del>8</del> '51'43	-2°-57'-13	morning rise	-3150 Jun 29 j 20:28	25° <del>8</del> '48'11	
min. Earth dist.	-3156 Sep 21 j 01:42	3° <del>8</del> '52'55	7.89816 AU		-3150 Aug 05 j 04:56	0° <del>8</del>	
direct	-3156 Nov 26 j 03:36	0° <del>8</del> '23'30		retrograde	-3150 Oct 09 j 21:27	3° <del>8</del> '40'09	
evening set	-3155 Mar 09 j 17:16	8° <del>8</del> '43'27		opposition	-3150 Dec 15 j 11:48	0° <del>8</del> '14'35	0°-25'-17
				min. Earth dist.	-3150 Dec 14 j 23:46	0° <del>8</del> '17'02	8.23347 AU
conjunction	-3155 Mar 27 j 14:53	11° <del>8</del> '05'27	-2°-21'-39		-3150 Dec 18 j 11:38	30° <del>8</del>	
minimum elong	-3155 Mar 27 j 14:53	11° <del>8</del> '05'27	2°21'43	direct	-3149 Feb 21 j 20:31	26° <del>8</del> '45'15	
max. Earth dist.	-3155 Mar 27 j 23:26	11° <del>8</del> '08'18	9.87527 AU		-3149 Apr 26 j 03:17	0° <del>8</del>	
morning rise	-3155 Apr 14 j 15:46	13° <del>8</del> '28'29		evening set	-3149 Jun 08 j 06:01	4° <del>8</del> '48'37	
retrograde	-3155 Jul 31 j 01:20	22° <del>8</del> '05'44					
opposition	-3155 Oct 06 j 00:26	18° <del>8</del> '33'55	-2°-55'-2	conjunction	-3149 Jun 26 j 05:35	7° <del>8</del> '03'51	0°-3'-31
min. Earth dist.	-3155 Oct 05 j 16:38	18° <del>8</del> '35'33	7.86605 AU	minimum elong	-3149 Jun 26 j 05:34	7° <del>8</del> '03'51	0°03'25
direct	-3155 Dec 10 j 21:30	15° <del>8</del> '04'36		behind sun begin	-3149 Jun 25 j 22:20	7° <del>8</del> '01'36	
evening set	-3154 Mar 25 j 07:45	23° <del>8</del> '29'14		behind sun end	-3149 Jun 26 j 12:48	7° <del>8</del> '06'06	
				max. Earth dist.	-3149 Jun 26 j 20:21	7° <del>8</del> '08'30	10.30565 AU
conjunction	-3154 Apr 12 j 08:36	25° <del>8</del> '52'19	-2°-15'-14	morning rise	-3149 Jul 14 j 00:38	9° <del>8</del> '17'40	
minimum elong	-3154 Apr 12 j 08:39	25° <del>8</del> '52'20	2°15'16	asc. node	-3149 Aug 04 j 19:45	11° <del>8</del> '52'37	
max. Earth dist.	-3154 Apr 12 j 20:11	25° <del>8</del> '56'10	9.86234 AU	retrograde	-3149 Oct 23 j 02:05	16° <del>8</del> '56'53	
morning rise	-3154 Apr 30 j 11:36	28° <del>8</del> '16'01		opposition	-3149 Dec 28 j 22:17	13° <del>8</del> '33'16	0°15'42
	-3154 May 14 j 01:38	0° <del>8</del>		min. Earth dist.	-3149 Dec 28 j 11:52	13° <del>8</del> '35'21	8.37844 AU
retrograde	-3154 Aug 15 j 02:20	6° <del>8</del> '49'59		direct	-3148 Mar 06 j 23:02	10° <del>8</del> '04'56	
opposition	-3154 Oct 20 j 17:02	3° <del>8</del> '18'39	-2°-41'-17	evening set	-3148 Jun 21 j 05:32	17° <del>8</del> '58'43	
min. Earth dist.	-3154 Oct 20 j 07:24	3° <del>8</del> '20'40	7.87228 AU				
	-3154 Dec 11 j 18:04	30° <del>8</del>		conjunction	-3148 Jul 09 j 00:39	20° <del>8</del> '10'31	0°29'01
direct	-3154 Dec 25 j 19:59	29° <del>8</del> '48'34		minimum elong	-3148 Jul 09 j 00:37	20° <del>8</del> '10'31	0°29'08
	-3153 Jan 08 j 22:31	0° <del>8</del>		max. Earth dist.	-3148 Jul 09 j 12:51	20° <del>8</del> '14'18	10.45489 AU
evening set	-3153 Apr 09 j 23:36	8° <del>8</del> '14'35		morning rise	-3148 Jul 26 j 14:49	22° <del>8</del> '20'46	
				retrograde	-3148 Nov 03 j 18:26	29° <del>8</del> '48'02	
conjunction	-3153 Apr 28 j 02:54	10° <del>8</del> '37'50	-2°00'00	opposition	-3147 Jan 10 j 00:43	26° <del>8</del> '26'19	0°54'28
minimum elong	-3153 Apr 28 j 02:58	10° <del>8</del> '37'52	1°59'59	min. Earth dist.	-3147 Jan 09 j 16:23	26° <del>8</del> '27'57	8.52994 AU
max. Earth dist.	-3153 Apr 28 j 16:53	10° <del>8</del> '42'28	9.88818 AU	direct	-3147 Mar 20 j 18:13	22° <del>8</del> '59'11	
morning rise	-3153 May 16 j 06:56	13° <del>8</del> '01'15			-3147 Jun 28 j 15:29	0° <del>8</del>	
retrograde	-3153 Aug 29 j 20:51	21° <del>8</del> '28'08		evening set	-3147 Jul 04 j 16:58	0° <del>8</del> '43'10	
opposition	-3153 Nov 04 j 06:42	17° <del>8</del> '57'44	-2°-17'-4				
min. Earth dist.	-3153 Nov 03 j 19:29	18° <del>8</del> '00'05	7.91633 AU	conjunction	-3147 Jul 22 j 06:50	2° <del>8</del> '51'23	0°59'06
direct	-3152 Jan 09 j 20:20	14° <del>8</del> '27'15		minimum elong	-3147 Jul 22 j 06:48	2° <del>8</del> '51'22	0°59'13
evening set	-3152 Apr 24 j 12:52	22° <del>8</del> '51'21		max. Earth dist.	-3147 Jul 22 j 15:40	2° <del>8</del> '54'05	10.60640 AU
				morning rise	-3147 Aug 08 j 15:39	4° <del>8</del> '58'01	
conjunction	-3152 May 12 j 17:29	25° <del>8</del> '13'50	-1°-37'-10	retrograde	-3147 Nov 16 j 02:50	12° <del>8</del> '51'437	
minimum elong	-3152 May 12 j 17:33	25° <del>8</del> '13'51	1°37'09	opposition	-3146 Jan 22 j 19:27	8° <del>8</del> '54'37	1°29'17
max. Earth dist.	-3152 May 13 j 09:04	25° <del>8</del> '18'57	9.95086 AU	min. Earth dist.	-3146 Jan 22 j 12:50	8° <del>8</del> '55'54	8.68020 AU
morning rise	-3152 May 30 j 21:20	27° <del>8</del> '36'00		direct	-3146 Apr 03 j 03:46	5° <del>8</del> '28'52	
	-3152 Jun 19 j 04:22	0° <del>8</del>		evening set	-3146 Jul 17 j 16:19	13° <del>8</del> '50'3'12	
retrograde	-3152 Sep 12 j 06:13	5° <del>8</del> '52'48					
opposition	-3152 Nov 17 j 15:18	2° <del>8</del> '23'44	-1°-44'-28	conjunction	-3146 Aug 04 j 00:45	15° <del>8</del> '50'7'58	1°25'35
min. Earth dist.	-3152 Nov 17 j 02:54	2° <del>8</del> '26'19	7.99511 AU	minimum elong	-3146 Aug 04 j 00:42	15° <del>8</del> '50'7'57	1°25'42
	-3152 Dec 19 j 10:52	30° <del>8</del>		max. Earth dist.	-3146 Aug 04 j 06:46	15° <del>8</del> '50'9'47	10.75289 AU
direct	-3151 Jan 23 j 18:08	28° <del>8</del> '53'15		morning rise	-3146 Aug 21 j 04:03	17° <del>8</del> '51'1'10	
	-3151 Feb 27 j 20:48	0° <del>8</del>		retrograde	-3146 Nov 28 j 04:33	24° <del>8</del> '51'8'37	
evening set	-3151 May 09 j 20:02	7° <del>8</del> '12'30		opposition	-3145 Feb 04 j 07:26	21° <del>8</del> '50'0'08	1°58'56
				min. Earth dist.	-3145 Feb 04 j 02:37	21° <del>8</del> '50'1'03	8.82223 AU
conjunction	-3151 May 28 j 00:34	9° <del>8</del> '33'18	-1°-8'-39	direct	-3145 Apr 16 j 03:20	17° <del>8</del> '53'5'46	
minimum elong	-3151 May 28 j 00:37	9° <del>8</del> '33'19	1°08'36	evening set	-3145 Jul 30 j 04:15	25° <del>8</del> '50'1'00	
max. Earth dist.	-3151 May 28 j 16:55	9° <del>8</del> '38'36	10.04586 AU				
morning rise	-3151 Jun 15 j 02:50	11° <del>8</del> '53'19		conjunction	-3145 Aug 16 j 07:22	27° <del>8</del> '50'2'36	1°47'37
	-3151 Jul 10 j 20:04	15° <del>8</del>		minimum elong	-3145 Aug 16 j 07:19	27° <del>8</del> '50'2'35	1°47'43
retrograde	-3151 Sep 26 j 06:34	19° <del>8</del> '58'07		max. Earth dist.	-3145 Aug 16 j 11:05	27° <del>8</del> '50'3'43	10.88780 AU
opposition	-3151 Dec 01 j 17:21	16° <del>8</del> '30'42	-1°-6'-14	morning rise	-3145 Sep 02 j 05:23	29° <del>8</del> '50'2'44	
min. Earth dist.	-3151 Dec 01 j 04:31	16° <del>8</del> '33'21	8.10313 AU		-3145 Sep 10 j 12:35	0° <del>8</del>	
	-3151 Dec 20 j 17:34	15° <del>8</del>		retrograde	-3145 Dec 09 j 23:19	6° <del>8</del> '50'2'42	
direct	-3150 Feb 07 j 11:01	13° <del>8</del> '00'37		opposition	-3144 Feb 16 j 13:25	2° <del>8</del> '45'26	2°22'39
	-3150 Mar 27 j 13:31	15° <del>8</del>		min. Earth dist.	-3144 Feb 16 j 11:15	2° <del>8</del> '45'51	8.94978 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 22

Attention, astronomical year style is used: The year -3144 in astronomical counting style is the year 3145 BCE in historical counting style.

	-3144 Mar 30 j 12:50	30° $\mathbb{R}\mathbb{E}$		opposition	-3138 Apr 26 j 12:44	9° $\mathbb{A}$ 28'01	2°30'33
direct	-3144 Apr 27 j 19:11	29° $\mathbb{E}$ 22'26		min. Earth dist.	-3138 Apr 27 j 01:05	9° $\mathbb{A}$ 25'46	9.19320 AU
	-3144 May 25 j 20:17	0° $\mathbb{Q}$		direct	-3138 Jul 06 j 19:24	6° $\mathbb{A}$ 09'57	
evening set	-3144 Aug 10 j 06:16	6° $\mathbb{Q}$ 39'27		evening set	-3138 Oct 15 j 14:23	13° $\mathbb{A}$ 04'18	
				max. Earth dist.	-3138 Oct 31 j 09:54	14° $\mathbb{A}$ 54'08	11.16675 AU
conjunction	-3144 Aug 27 j 04:22	8° $\mathbb{Q}$ 38'17	2°04'40				
minimum elong	-3144 Aug 27 j 04:20	8° $\mathbb{Q}$ 38'16	2°04'44	conjunction	-3138 Nov 01 j 00:10	14° $\mathbb{A}$ 58'18	1°55'58
max. Earth dist.	-3144 Aug 27 j 04:58	8° $\mathbb{Q}$ 38'27	11.00537 AU	minimum elong	-3138 Nov 01 j 00:13	14° $\mathbb{A}$ 58'19	1°55'56
morning rise	-3144 Sep 12 j 21:45	10° $\mathbb{Q}$ 35'47		morning rise	-3138 Nov 17 j 10:05	16° $\mathbb{A}$ 52'24	
	-3144 Oct 25 j 19:06	15° $\mathbb{Q}$		retrograde	-3137 Feb 26 j 08:51	23° $\mathbb{A}$ 49'05	
retrograde	-3144 Dec 20 j 13:24	17° $\mathbb{Q}$ 30'00		opposition	-3137 May 08 j 09:47	20° $\mathbb{A}$ 31'23	2°10'35
	-3143 Feb 17 j 03:18	15° $\mathbb{R}\mathbb{Q}$		min. Earth dist.	-3137 May 08 j 22:23	20° $\mathbb{A}$ 29'05	9.13625 AU
opposition	-3143 Feb 27 j 14:22	14° $\mathbb{Q}$ 13'40	2°40'03	direct	-3137 Jul 18 j 09:17	17° $\mathbb{A}$ 13'21	
min. Earth dist.	-3143 Feb 27 j 15:47	14° $\mathbb{Q}$ 13'24	9.05743 AU	evening set	-3137 Oct 26 j 15:24	24° $\mathbb{A}$ 08'53	
direct	-3143 May 10 j 02:39	10° $\mathbb{Q}$ 51'54					
	-3143 Jul 24 j 19:57	15° $\mathbb{Q}$		conjunction	-3137 Nov 12 j 02:27	26° $\mathbb{A}$ 04'04	1°37'18
evening set	-3143 Aug 21 j 23:39	18° $\mathbb{Q}$ 01'50		minimum elong	-3137 Nov 12 j 02:30	26° $\mathbb{A}$ 04'04	1°37'16
				max. Earth dist.	-3137 Nov 11 j 12:12	25° $\mathbb{A}$ 59'53	11.09733 AU
conjunction	-3143 Sep 07 j 17:17	19° $\mathbb{Q}$ 58'24	2°16'26	morning rise	-3137 Nov 28 j 14:18	27° $\mathbb{A}$ 59'35	
minimum elong	-3143 Sep 07 j 17:15	19° $\mathbb{Q}$ 58'24	2°16'29		-3137 Dec 16 j 15:44	0° $\mathbb{M}$	
max. Earth dist.	-3143 Sep 07 j 13:35	19° $\mathbb{Q}$ 57'19	11.10074 AU	retrograde	-3136 Mar 09 j 09:02	5° $\mathbb{M}$ 02'28	
morning rise	-3143 Sep 24 j 07:00	21° $\mathbb{Q}$ 53'51		opposition	-3136 May 19 j 10:24	1° $\mathbb{M}$ 43'31	1°45'25
retrograde	-3143 Dec 31 j 22:26	28° $\mathbb{Q}$ 44'08		min. Earth dist.	-3136 May 19 j 23:00	1° $\mathbb{M}$ 41'11	9.05383 AU
opposition	-3142 Mar 11 j 11:44	25° $\mathbb{Q}$ 28'24	2°50'55		-3136 Jun 13 j 01:40	30° $\mathbb{R}\mathbb{A}$	
min. Earth dist.	-3142 Mar 11 j 15:58	25° $\mathbb{Q}$ 27'37	9.14071 AU	direct	-3136 Jul 28 j 22:56	28° $\mathbb{A}$ 25'18	
direct	-3142 May 22 j 04:12	22° $\mathbb{Q}$ 07'46			-3136 Sep 11 j 06:07	0° $\mathbb{M}$	
evening set	-3142 Sep 02 j 09:43	29° $\mathbb{Q}$ 11'52		evening set	-3136 Nov 05 j 20:16	5° $\mathbb{M}$ 23'37	
	-3142 Sep 09 j 09:44	0° $\mathbb{M}$					
conjunction	-3142 Sep 18 j 23:52	1° $\mathbb{M}$ 06'45	2°22'48	conjunction	-3136 Nov 22 j 09:03	7° $\mathbb{M}$ 20'25	1°14'38
minimum elong	-3142 Sep 18 j 23:51	1° $\mathbb{M}$ 06'45	2°22'51	minimum elong	-3136 Nov 22 j 09:06	7° $\mathbb{M}$ 20'26	1°14'34
max. Earth dist.	-3142 Sep 18 j 17:08	1° $\mathbb{M}$ 04'47	11.17023 AU	max. Earth dist.	-3136 Nov 21 j 18:06	7° $\mathbb{M}$ 15'59	11.00378 AU
morning rise	-3142 Oct 05 j 10:48	3° $\mathbb{M}$ 00'44		morning rise	-3136 Dec 08 j 23:40	9° $\mathbb{M}$ 17'52	
retrograde	-3141 Jan 12 j 08:19	9° $\mathbb{M}$ 48'57			-3135 Feb 06 j 07:53	15° $\mathbb{M}$	
opposition	-3141 Mar 23 j 06:34	6° $\mathbb{M}$ 33'30	2°55'15	retrograde	-3135 Mar 21 j 13:54	16° $\mathbb{M}$ 28'34	
min. Earth dist.	-3141 Mar 23 j 12:44	6° $\mathbb{M}$ 32'22	9.19670 AU		-3135 May 04 j 23:59	15° $\mathbb{R}\mathbb{M}$	
direct	-3141 Jun 03 j 02:01	3° $\mathbb{M}$ 13'51		opposition	-3135 May 31 j 15:47	13° $\mathbb{M}$ 08'10	1°15'37
evening set	-3141 Sep 13 j 14:30	10° $\mathbb{M}$ 13'26		min. Earth dist.	-3135 Jun 01 j 04:39	13° $\mathbb{M}$ 05'46	8.94879 AU
				direct	-3135 Aug 09 j 14:53	9° $\mathbb{M}$ 49'32	
conjunction	-3141 Sep 30 j 02:15	12° $\mathbb{M}$ 07'15	2°23'48		-3135 Oct 31 j 19:51	15° $\mathbb{M}$	
minimum elong	-3141 Sep 30 j 02:15	12° $\mathbb{M}$ 07'15	2°23'50	evening set	-3135 Nov 17 j 06:55	16° $\mathbb{M}$ 52'17	
max. Earth dist.	-3141 Sep 29 j 17:43	12° $\mathbb{M}$ 04'47	11.21191 AU				
morning rise	-3141 Oct 16 j 11:18	14° $\mathbb{M}$ 00'22		conjunction	-3135 Dec 03 j 22:04	18° $\mathbb{M}$ 51'12	0°48'32
retrograde	-3140 Jan 23 j 17:23	20° $\mathbb{M}$ 48'13		minimum elong	-3135 Dec 03 j 22:05	18° $\mathbb{M}$ 51'12	0°48'28
opposition	-3140 Apr 03 j 00:04	17° $\mathbb{M}$ 32'42	2°53'11	max. Earth dist.	-3135 Dec 03 j 06:44	18° $\mathbb{M}$ 46'36	10.88940 AU
min. Earth dist.	-3140 Apr 03 j 08:16	17° $\mathbb{M}$ 31'12	9.22418 AU	morning rise	-3135 Dec 20 j 16:07	20° $\mathbb{M}$ 51'01	
direct	-3140 Jun 13 j 17:18	14° $\mathbb{M}$ 13'50		retrograde	-3134 Apr 03 j 04:01	28° $\mathbb{M}$ 11'02	
evening set	-3140 Sep 23 j 15:47	21° $\mathbb{M}$ 10'16		opposition	-3134 Jun 13 j 02:58	24° $\mathbb{M}$ 49'03	0°41'57
				min. Earth dist.	-3134 Jun 13 j 15:41	24° $\mathbb{M}$ 46'39	8.82493 AU
conjunction	-3140 Oct 10 j 01:57	23° $\mathbb{M}$ 03'35	2°19'31	direct	-3134 Aug 21 j 13:01	21° $\mathbb{M}$ 29'47	
minimum elong	-3140 Oct 10 j 01:58	23° $\mathbb{M}$ 03'35	2°19'32	evening set	-3134 Nov 29 j 01:09	28° $\mathbb{M}$ 38'36	
max. Earth dist.	-3140 Oct 09 j 15:00	23° $\mathbb{M}$ 00'25	11.22507 AU		-3134 Dec 10 j 07:44	0° $\mathbb{A}$	
morning rise	-3140 Oct 26 j 10:15	24° $\mathbb{M}$ 56'27		conjunction	-3134 Dec 15 j 19:20	0° $\mathbb{A}$ 40'01	0°19'48
	-3140 Dec 17 j 19:56	0° $\mathbb{A}$		minimum elong	-3134 Dec 15 j 19:20	0° $\mathbb{A}$ 40'01	0°19'43
retrograde	-3139 Feb 03 j 03:54	1° $\mathbb{A}$ 45'35		max. Earth dist.	-3134 Dec 15 j 05:25	0° $\mathbb{A}$ 35'47	10.75816 AU
	-3139 Mar 24 j 05:49	30° $\mathbb{R}\mathbb{M}$		morning rise	-3133 Jan 01 j 17:06	2° $\mathbb{A}$ 42'36	
opposition	-3139 Apr 14 j 17:48	28° $\mathbb{M}$ 29'41	2°44'51	retrograde	-3133 Apr 16 j 03:29	10° $\mathbb{A}$ 13'18	
min. Earth dist.	-3139 Apr 15 j 04:30	28° $\mathbb{M}$ 27'44	9.22288 AU	opposition	-3133 Jun 25 j 20:50	6° $\mathbb{A}$ 49'37	0°05'26
direct	-3139 Jun 25 j 06:59	25° $\mathbb{M}$ 11'20		min. Earth dist.	-3133 Jun 26 j 08:01	6° $\mathbb{A}$ 47'29	8.68674 AU
	-3139 Sep 15 j 09:51	0° $\mathbb{A}$		desc. node	-3133 Aug 19 j 11:19	3° $\mathbb{A}$ 39'59	
evening set	-3139 Oct 04 j 15:08	2° $\mathbb{A}$ 06'00		direct	-3133 Sep 02 j 16:00	3° $\mathbb{A}$ 29'32	
max. Earth dist.	-3139 Oct 20 j 11:08	3° $\mathbb{A}$ 55'29	11.20978 AU	evening set	-3133 Dec 11 j 05:06	10° $\mathbb{A}$ 46'02	
conjunction	-3139 Oct 21 j 00:33	3° $\mathbb{A}$ 59'23	2°10'09	conjunction	-3133 Dec 28 j 02:38	12° $\mathbb{A}$ 50'16	0°-10'-38
minimum elong	-3139 Oct 21 j 00:35	3° $\mathbb{A}$ 59'23	2°10'09	minimum elong	-3133 Dec 28 j 02:37	12° $\mathbb{A}$ 50'16	0°10'45
morning rise	-3139 Nov 06 j 09:15	5° $\mathbb{A}$ 52'35		behind sun begin	-3133 Dec 27 j 21:10	12° $\mathbb{A}$ 48'36	
retrograde	-3138 Feb 14 j 15:28	12° $\mathbb{A}$ 44'40		behind sun end	-3133 Dec 28 j 08:04	12° $\mathbb{A}$ 51'56	



## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodiens AG 7-Dez-2017 14:39, page 23

Attention, astronomical year style is used: The year -3133 in astronomical counting style is the year 3134 BCE in historical counting style.

max. Earth dist.	-3133 Dec 27 j 14:48	12° $\text{𐌶}$ 46'38	10.61496 AU		-3126 Feb 12 j 22:34	0° $\text{𐌹}$	
morning rise	-3132 Jan 14 j 04:14	14° $\text{𐌶}$ 55'52		evening set	-3126 Mar 03 j 01:39	2° $\text{𐌹}$ 17'16	
retrograde	-3132 Apr 28 j 12:49	22° $\text{𐌶}$ 38'20					
opposition	-3132 Jul 07 j 22:09	19° $\text{𐌶}$ 12'56	0°-32'-33	conjunction	-3126 Mar 20 j 21:41	4° $\text{𐌹}$ 38'27	-2°-21'-24
min. Earth dist.	-3132 Jul 08 j 06:59	19° $\text{𐌶}$ 11'14	8.53983 AU	minimum elong	-3126 Mar 20 j 21:41	4° $\text{𐌹}$ 38'27	2°21'27
direct	-3132 Sep 14 j 02:47	15° $\text{𐌶}$ 51'52		max. Earth dist.	-3126 Mar 21 j 06:30	4° $\text{𐌹}$ 41'23	9.90151 AU
evening set	-3132 Dec 22 j 20:24	23° $\text{𐌶}$ 17'31		morning rise	-3126 Apr 07 j 21:17	7° $\text{𐌹}$ 00'49	
				retrograde	-3126 Jul 24 j 13:02	15° $\text{𐌹}$ 38'05	
conjunction	-3131 Jan 08 j 21:25	25° $\text{𐌶}$ 24'48	0°-41'-23	opposition	-3126 Sep 29 j 17:24	12° $\text{𐌹}$ 06'41	-2°-57'-17
minimum elong	-3131 Jan 08 j 21:23	25° $\text{𐌶}$ 24'47	0°41'30	min. Earth dist.	-3126 Sep 29 j 09:17	12° $\text{𐌹}$ 08'22	7.88550 AU
max. Earth dist.	-3131 Jan 08 j 11:41	25° $\text{𐌶}$ 21'45	10.46606 AU	direct	-3126 Dec 04 j 13:22	8° $\text{𐌹}$ 38'23	
morning rise	-3131 Jan 26 j 03:05	27° $\text{𐌶}$ 33'36		evening set	-3125 Mar 18 j 14:24	17° $\text{𐌹}$ 01'00	
	-3131 Feb 15 j 18:34	0° $\text{𐌶}$					
retrograde	-3131 May 12 j 10:05	5° $\text{𐌶}$ 28'27		conjunction	-3125 Apr 05 j 13:54	19° $\text{𐌹}$ 23'35	-2°-19'-10
opposition	-3131 Jul 21 j 07:43	2° $\text{𐌶}$ 01'24	-1°-10'-20	minimum elong	-3125 Apr 05 j 13:56	19° $\text{𐌹}$ 23'35	2°19'12
min. Earth dist.	-3131 Jul 21 j 14:02	2° $\text{𐌶}$ 00'10	8.39097 AU	max. Earth dist.	-3125 Apr 06 j 02:20	19° $\text{𐌹}$ 27'43	9.87466 AU
	-3131 Aug 17 j 23:37	30° $\text{𐌹}$ $\text{𐌶}$		morning rise	-3125 Apr 23 j 15:48	21° $\text{𐌹}$ 46'57	
direct	-3131 Sep 26 j 20:32	28° $\text{𐌶}$ 39'12			-3125 Jul 19 j 14:26	0° $\text{𐌹}$	
	-3131 Nov 04 j 16:46	0° $\text{𐌶}$		retrograde	-3125 Aug 08 j 16:26	0° $\text{𐌹}$ 22'40	
evening set	-3130 Jan 05 j 00:21	6° $\text{𐌶}$ 15'07			-3125 Aug 28 j 18:49	30° $\text{𐌹}$ $\text{𐌹}$	
				opposition	-3125 Oct 14 j 10:39	26° $\text{𐌹}$ 51'34	-2°-48'-42
conjunction	-3130 Jan 22 j 04:58	8° $\text{𐌶}$ 25'33	-1°-10'-59	min. Earth dist.	-3125 Oct 14 j 00:15	26° $\text{𐌹}$ 53'45	7.87747 AU
minimum elong	-3130 Jan 22 j 04:56	8° $\text{𐌶}$ 25'32	1°11'07	direct	-3125 Dec 19 j 09:44	23° $\text{𐌹}$ 22'26	
max. Earth dist.	-3130 Jan 21 j 21:20	8° $\text{𐌶}$ 23'07	10.31864 AU		-3124 Mar 19 j 03:11	0° $\text{𐌹}$	
morning rise	-3130 Feb 08 j 14:47	10° $\text{𐌶}$ 37'40		evening set	-3124 Apr 02 j 06:03	1° $\text{𐌹}$ 47'43	
retrograde	-3130 May 26 j 16:53	18° $\text{𐌶}$ 44'49					
opposition	-3130 Aug 04 j 01:32	15° $\text{𐌶}$ 16'16	-1°-45'-47	conjunction	-3124 Apr 20 j 08:22	4° $\text{𐌹}$ 10'50	-2°-7'-50
min. Earth dist.	-3130 Aug 04 j 05:36	15° $\text{𐌶}$ 15'28	8.24769 AU	minimum elong	-3124 Apr 20 j 08:25	4° $\text{𐌹}$ 10'51	2°07'50
direct	-3130 Oct 09 j 23:37	11° $\text{𐌶}$ 52'48		max. Earth dist.	-3124 Apr 20 j 23:13	4° $\text{𐌹}$ 15'46	9.88565 AU
evening set	-3129 Jan 18 j 17:54	19° $\text{𐌶}$ 39'47		morning rise	-3124 May 08 j 11:48	6° $\text{𐌹}$ 34'18	
				retrograde	-3124 Aug 22 j 14:53	15° $\text{𐌹}$ 04'27	
conjunction	-3129 Feb 05 j 02:17	21° $\text{𐌶}$ 53'19	-1°-37'-39	opposition	-3124 Oct 28 j 01:58	11° $\text{𐌹}$ 34'05	-2°-29'-3
minimum elong	-3129 Feb 05 j 02:14	21° $\text{𐌶}$ 53'18	1°37'46	min. Earth dist.	-3124 Oct 27 j 14:30	11° $\text{𐌹}$ 36'29	7.90630 AU
max. Earth dist.	-3129 Feb 04 j 21:47	21° $\text{𐌶}$ 51'52	10.18053 AU	direct	-3123 Jan 02 j 09:10	8° $\text{𐌹}$ 04'22	
morning rise	-3129 Feb 22 j 16:01	24° $\text{𐌶}$ 08'36		evening set	-3123 Apr 17 j 21:01	16° $\text{𐌹}$ 29'07	
	-3129 Apr 17 j 00:09	0° $\text{𐌹}$					
retrograde	-3129 Jun 10 j 07:52	2° $\text{𐌹}$ 27'07		conjunction	-3123 May 06 j 01:09	18° $\text{𐌹}$ 51'53	-1°-48'-15
	-3129 Aug 04 j 23:55	30° $\text{𐌹}$ $\text{𐌶}$		minimum elong	-3123 May 06 j 01:13	18° $\text{𐌹}$ 51'54	1°48'14
opposition	-3129 Aug 18 j 02:58	28° $\text{𐌶}$ 57'20	-2°-16'-32	max. Earth dist.	-3123 May 06 j 16:49	18° $\text{𐌹}$ 57'02	9.93246 AU
min. Earth dist.	-3129 Aug 18 j 04:32	28° $\text{𐌶}$ 57'01	8.11802 AU	morning rise	-3123 May 24 j 05:04	21° $\text{𐌹}$ 14'32	
direct	-3129 Oct 23 j 13:48	25° $\text{𐌶}$ 32'33		retrograde	-3123 Sep 06 j 05:09	29° $\text{𐌹}$ 35'50	
	-3128 Jan 03 j 21:53	0° $\text{𐌹}$		opposition	-3123 Nov 11 j 13:02	26° $\text{𐌹}$ 06'40	-1°-59'-58
evening set	-3128 Feb 02 j 00:49	3° $\text{𐌹}$ 30'37		min. Earth dist.	-3123 Nov 11 j 01:34	26° $\text{𐌹}$ 09'03	7.96877 AU
				direct	-3122 Jan 17 j 07:57	22° $\text{𐌹}$ 36'42	
conjunction	-3128 Feb 19 j 13:05	5° $\text{𐌹}$ 47'07	-1°-59'-27		-3122 Apr 25 j 15:48	0° $\text{𐌹}$	
minimum elong	-3128 Feb 19 j 13:02	5° $\text{𐌹}$ 47'06	1°59'34	evening set	-3122 May 03 j 07:35	0° $\text{𐌹}$ 58'05	
max. Earth dist.	-3128 Feb 19 j 12:44	5° $\text{𐌹}$ 47'00	10.05994 AU				
morning rise	-3128 Mar 08 j 06:28	8° $\text{𐌹}$ 05'16		conjunction	-3122 May 21 j 12:12	3° $\text{𐌹}$ 19'37	-1°-22'-4
	-3128 May 12 j 20:58	15° $\text{𐌹}$		minimum elong	-3122 May 21 j 12:16	3° $\text{𐌹}$ 19'38	1°22'01
retrograde	-3128 Jun 24 j 05:13	16° $\text{𐌹}$ 33'18		max. Earth dist.	-3122 May 22 j 03:29	3° $\text{𐌹}$ 24'36	10.01092 AU
	-3128 Aug 06 j 01:48	15° $\text{𐌹}$ $\text{𐌹}$		morning rise	-3122 Jun 08 j 15:18	5° $\text{𐌹}$ 40'36	
opposition	-3128 Aug 31 j 11:21	13° $\text{𐌹}$ 02'34	-2°-40'-5	retrograde	-3122 Sep 20 j 10:13	13° $\text{𐌹}$ 50'52	
min. Earth dist.	-3128 Aug 31 j 09:46	13° $\text{𐌹}$ 02'54	8.00996 AU	opposition	-3122 Nov 25 j 18:29	10° $\text{𐌹}$ 23'13	-1°-23'-57
direct	-3128 Nov 05 j 14:13	9° $\text{𐌹}$ 36'31		min. Earth dist.	-3122 Nov 25 j 07:24	10° $\text{𐌹}$ 25'30	8.06065 AU
	-3127 Jan 24 j 17:15	15° $\text{𐌹}$		direct	-3121 Feb 01 j 03:39	6° $\text{𐌹}$ 53'24	
evening set	-3127 Feb 15 j 20:00	17° $\text{𐌹}$ 44'47			-3121 May 17 j 06:16	15° $\text{𐌹}$	
				evening set	-3121 May 18 j 10:31	15° $\text{𐌹}$ 08'54	
conjunction	-3127 Mar 05 j 12:13	20° $\text{𐌹}$ 03'54	-2°-14'-32				
minimum elong	-3127 Mar 05 j 12:11	20° $\text{𐌹}$ 03'53	2°14'37	conjunction	-3121 Jun 05 j 14:06	17° $\text{𐌹}$ 28'22	0°-51'-21
max. Earth dist.	-3127 Mar 05 j 16:33	20° $\text{𐌹}$ 05'20	9.96474 AU	minimum elong	-3121 Jun 05 j 14:08	17° $\text{𐌹}$ 28'23	0°51'18
morning rise	-3127 Mar 23 j 08:54	22° $\text{𐌹}$ 24'28		max. Earth dist.	-3121 Jun 06 j 04:26	17° $\text{𐌹}$ 32'59	10.11643 AU
	-3127 Jun 06 j 05:05	0° $\text{𐌹}$		morning rise	-3121 Jun 23 j 14:57	19° $\text{𐌹}$ 46'53	
retrograde	-3127 Jul 09 j 08:06	0° $\text{𐌹}$ 59'03		retrograde	-3121 Oct 04 j 05:20	27° $\text{𐌹}$ 44'53	
	-3127 Aug 11 j 16:14	30° $\text{𐌹}$ $\text{𐌹}$		opposition	-3121 Dec 09 j 16:54	24° $\text{𐌹}$ 18'54	0°-43'-51
opposition	-3127 Sep 15 j 00:55	27° $\text{𐌹}$ 27'46	-2°-54'-13	min. Earth dist.	-3121 Dec 09 j 06:03	24° $\text{𐌹}$ 21'07	8.17700 AU
min. Earth dist.	-3127 Sep 14 j 19:57	27° $\text{𐌹}$ 28'48	7.93065 AU	direct	-3120 Feb 15 j 18:07	20° $\text{𐌹}$ 49'33	
direct	-3127 Nov 19 j 22:14	24° $\text{𐌹}$ 00'31		evening set	-3120 Jun 01 j 03:39	28° $\text{𐌹}$ 57'14	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 24

Attention, astronomical year style is used: The year -3120 in astronomical counting style is the year 3121 BCE in historical counting style.

	-3120 Jun 09 j 11:46	0°♊		evening set	-3114 Aug 17 j 05:28	13°♏15'25	
					-3114 Sep 01 j 04:28	15°♏	
conjunction	-3120 Jun 19 j 04:45	1°♊13'57	0°-18'-25				
minimum elong	-3120 Jun 19 j 04:46	1°♊13'57	0°18'21	conjunction	-3114 Sep 03 j 01:12	15°♏13'09	2°11'58
max. Earth dist.	-3120 Jun 19 j 17:54	1°♊18'07	10.24314 AU	minimum elong	-3114 Sep 03 j 01:10	15°♏13'08	2°12'02
morning rise	-3120 Jul 07 j 02:03	3°♊29'24		max. Earth dist.	-3114 Sep 02 j 23:52	15°♏12'45	11.04205 AU
retrograde	-3120 Oct 16 j 13:59	11°♊14'42		morning rise	-3114 Sep 19 j 16:33	17°♏09'39	
opposition	-3120 Dec 22 j 07:21	7°♊50'28	0°-2'-32	retrograde	-3114 Dec 27 j 07:28	24°♏02'03	
min. Earth dist.	-3120 Dec 21 j 21:01	7°♊52'33	8.31125 AU	opposition	-3113 Mar 06 j 15:16	20°♏45'32	2°47'05
asc. node	-3119 Jan 14 j 18:00	6°♊02'51		min. Earth dist.	-3113 Mar 06 j 17:02	20°♏45'13	9.08823 AU
direct	-3119 Mar 01 j 01:36	4°♊21'50		direct	-3113 May 17 j 06:54	17°♏23'54	
evening set	-3119 Jun 15 j 09:24	12°♊20'27		evening set	-3113 Aug 28 j 18:40	24°♏30'58	
conjunction	-3119 Jul 03 j 06:45	14°♊33'56	0°14'42	conjunction	-3113 Sep 14 j 10:32	26°♏26'43	2°20'45
minimum elong	-3119 Jul 03 j 06:44	14°♊33'56	0°14'48	minimum elong	-3113 Sep 14 j 10:31	26°♏26'43	2°20'48
behind sun begin	-3119 Jul 03 j 04:02	14°♊33'06		max. Earth dist.	-3113 Sep 14 j 06:46	26°♏25'37	11.12533 AU
behind sun end	-3119 Jul 03 j 09:25	14°♊34'46		morning rise	-3113 Sep 30 j 22:35	28°♏21'27	
max. Earth dist.	-3119 Jul 03 j 18:30	14°♊37'36	10.38372 AU		-3113 Oct 15 j 17:25	0°♎	
morning rise	-3119 Jul 20 j 23:22	16°♊45'56		retrograde	-3112 Jan 07 j 17:50	5°♎10'47	
retrograde	-3119 Oct 29 j 12:18	24°♊19'00		opposition	-3112 Mar 17 j 11:08	1°♎54'45	2°54'18
opposition	-3118 Jan 04 j 13:54	20°♊56'28	0°37'32	min. Earth dist.	-3112 Mar 17 j 15:46	1°♎53'54	9.15980 AU
min. Earth dist.	-3118 Jan 04 j 04:43	20°♊58'18	8.45577 AU		-3112 Apr 14 j 03:24	30°♎♏	
direct	-3118 Mar 15 j 00:37	17°♊28'48		direct	-3112 May 28 j 05:26	28°♏34'13	
evening set	-3118 Jun 29 j 02:53	25°♊17'44			-3112 Jul 10 j 07:57	0°♎	
				evening set	-3112 Sep 08 j 01:46	5°♎36'00	
conjunction	-3118 Jul 16 j 19:25	27°♊27'43	0°46'03	conjunction	-3112 Sep 24 j 14:29	7°♎30'21	2°24'07
minimum elong	-3118 Jul 16 j 19:23	27°♊27'42	0°46'10	minimum elong	-3112 Sep 24 j 14:29	7°♎30'21	2°24'09
max. Earth dist.	-3118 Jul 17 j 05:25	27°♊30'48	10.53035 AU	max. Earth dist.	-3112 Sep 24 j 07:27	7°♎28'19	11.18385 AU
morning rise	-3118 Aug 03 j 06:40	29°♊36'06		morning rise	-3112 Oct 11 j 00:21	9°♎23'54	
	-3118 Aug 06 j 14:17	0°♎		retrograde	-3111 Jan 18 j 00:23	16°♎11'51	
retrograde	-3118 Nov 11 j 02:24	6°♎57'57		opposition	-3111 Mar 29 j 04:58	12°♎56'01	2°55'02
opposition	-3117 Jan 17 j 12:40	3°♎37'03	1°14'22	min. Earth dist.	-3111 Mar 29 j 12:00	12°♎54'44	9.20536 AU
min. Earth dist.	-3117 Jan 17 j 05:38	3°♎38'26	8.60291 AU	direct	-3111 Jun 08 j 22:46	9°♎36'27	
direct	-3117 Mar 28 j 13:31	0°♎10'30		evening set	-3111 Sep 19 j 04:15	16°♎34'18	
evening set	-3117 Jul 12 j 08:07	7°♎49'41					
conjunction	-3117 Jul 29 j 19:15	9°♎56'11	1°14'19	conjunction	-3111 Oct 05 j 14:56	18°♎27'48	2°22'08
minimum elong	-3117 Jul 29 j 19:12	9°♎56'10	1°14'26	minimum elong	-3111 Oct 05 j 14:57	18°♎27'48	2°22'10
max. Earth dist.	-3117 Jul 30 j 02:33	9°♎58'24	10.67569 AU	max. Earth dist.	-3111 Oct 05 j 05:42	18°♎25'07	11.21581 AU
morning rise	-3117 Aug 16 j 01:00	12°♎01'04		morning rise	-3111 Oct 21 j 23:37	20°♎20'45	
retrograde	-3117 Nov 23 j 06:51	19°♎13'02		retrograde	-3110 Jan 29 j 10:09	27°♎09'05	
opposition	-3116 Jan 30 j 04:02	15°♎53'36	1°46'30	opposition	-3110 Apr 09 j 22:14	23°♎53'07	2°49'24
min. Earth dist.	-3116 Jan 29 j 23:45	15°♎54'26	8.74562 AU	min. Earth dist.	-3110 Apr 10 j 06:19	23°♎51'39	9.22346 AU
direct	-3116 Apr 09 j 17:35	12°♎28'14		direct	-3110 Jun 20 j 14:50	20°♎34'22	
evening set	-3116 Jul 24 j 01:35	19°♎58'07		evening set	-3110 Sep 30 j 03:48	27°♎29'35	
conjunction	-3116 Aug 10 j 07:08	22°♎01'18	1°38'28	conjunction	-3110 Oct 16 j 13:33	29°♎22'51	2°14'59
minimum elong	-3116 Aug 10 j 07:05	22°♎01'17	1°38'34	minimum elong	-3110 Oct 16 j 13:35	29°♎22'52	2°14'59
max. Earth dist.	-3116 Aug 10 j 10:42	22°♎02'22	10.81308 AU	max. Earth dist.	-3110 Oct 16 j 03:33	29°♎19'57	11.22006 AU
morning rise	-3116 Aug 27 j 07:39	24°♎02'59			-3110 Oct 21 j 21:46	0°♏	
	-3116 Oct 29 j 02:04	0°♏		morning rise	-3110 Nov 01 j 21:55	1°♏15'48	
retrograde	-3116 Dec 04 j 03:03	1°♏06'42		retrograde	-3109 Feb 09 j 22:14	8°♏06'08	
	-3115 Jan 09 j 23:52	30°♎♎		opposition	-3109 Apr 21 j 16:03	4°♏49'46	2°37'41
opposition	-3115 Feb 10 j 12:53	27°♎48'29	2°13'00	min. Earth dist.	-3109 Apr 22 j 01:20	4°♏48'05	9.21345 AU
min. Earth dist.	-3115 Feb 10 j 10:49	27°♎48'53	8.87743 AU	direct	-3109 Jul 02 j 02:34	1°♏31'39	
direct	-3115 Apr 22 j 14:59	24°♎24'21		evening set	-3109 Oct 11 j 02:39	8°♏25'40	
	-3115 Jul 20 j 17:52	0°♏					
evening set	-3115 Aug 05 j 08:17	1°♏45'39		conjunction	-3109 Oct 27 j 12:15	10°♏19'15	2°02'53
conjunction	-3115 Aug 22 j 08:35	3°♏45'52	1°57'48	minimum elong	-3109 Oct 27 j 12:18	10°♏19'15	2°02'52
minimum elong	-3115 Aug 22 j 08:32	3°♏45'51	1°57'53	max. Earth dist.	-3109 Oct 27 j 00:35	10°♏15'51	11.19643 AU
max. Earth dist.	-3115 Aug 22 j 09:09	3°♏46'02	10.93674 AU	morning rise	-3109 Nov 12 j 21:23	12°♏12'47	
morning rise	-3115 Sep 08 j 04:13	5°♏44'42		retrograde	-3108 Feb 21 j 12:33	19°♏06'43	
retrograde	-3115 Dec 15 j 19:33	12°♏41'54		opposition	-3108 May 02 j 11:33	15°♏49'42	2°20'09
opposition	-3114 Feb 22 j 16:13	9°♏24'40	2°33'17	min. Earth dist.	-3108 May 02 j 22:34	15°♏47'41	9.17566 AU
min. Earth dist.	-3114 Feb 22 j 15:49	9°♏24'44	8.99302 AU	direct	-3108 Jul 12 j 13:59	12°♏31'55	
direct	-3114 May 05 j 02:51	6°♏01'48		evening set	-3108 Oct 21 j 02:30	19°♏26'17	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 25

Attention, astronomical year style is used: The year -3108 in astronomical counting style is the year 3109 BCE in historical counting style.

conjunction	-3108 Nov 06 j 12:42	21° $\frac{1}{2}$ 20'42	1°46'10	direct	-3102 Sep 21 j 08:55	22° $\frac{1}{2}$ 58'03	
minimum elong	-3108 Nov 06 j 12:45	21° $\frac{1}{2}$ 20'43	1°46'07		-3102 Dec 26 j 12:39	0° $\frac{1}{2}$	
max. Earth dist.	-3108 Nov 05 j 23:07	21° $\frac{1}{2}$ 16'44	11.14571 AU	evening set	-3102 Dec 30 j 06:50	0° $\frac{1}{2}$ 27'39	
morning rise	-3108 Nov 22 j 23:35	23° $\frac{1}{2}$ 15'22					
	-3107 Feb 14 j 23:40	0° $\frac{1}{2}$		conjunction	-3101 Jan 16 j 09:37	2° $\frac{1}{2}$ 36'11	0°-57'-36
retrograde	-3107 Mar 04 j 08:12	0° $\frac{1}{2}$ 14'34		minimum elong	-3101 Jan 16 j 09:35	2° $\frac{1}{2}$ 36'10	0°57'44
	-3107 Mar 21 j 20:45	30° $\frac{1}{2}$		max. Earth dist.	-3101 Jan 16 j 00:20	2° $\frac{1}{2}$ 33'15	10.41436 AU
opposition	-3107 May 14 j 10:11	26° $\frac{1}{2}$ 56'36	1°57'13	morning rise	-3101 Feb 02 j 17:17	4° $\frac{1}{2}$ 46'20	
min. Earth dist.	-3107 May 14 j 22:22	26° $\frac{1}{2}$ 54'22	9.11134 AU	retrograde	-3101 May 20 j 08:49	12° $\frac{1}{2}$ 46'15	
direct	-3107 Jul 24 j 03:13	23° $\frac{1}{2}$ 38'56		opposition	-3101 Jul 29 j 01:10	9° $\frac{1}{2}$ 18'57	-1°-29'-46
	-3107 Oct 27 j 02:00	0° $\frac{1}{2}$		min. Earth dist.	-3101 Jul 29 j 07:32	9° $\frac{1}{2}$ 17'42	8.33898 AU
evening set	-3107 Nov 01 j 04:58	0° $\frac{1}{2}$ 35'07		direct	-3101 Oct 04 j 07:34	5° $\frac{1}{2}$ 56'32	
				evening set	-3100 Jan 12 j 16:52	13° $\frac{1}{2}$ 36'55	
conjunction	-3107 Nov 17 j 16:43	2° $\frac{1}{2}$ 30'54	1°25'13				
minimum elong	-3107 Nov 17 j 16:45	2° $\frac{1}{2}$ 30'55	1°25'10	conjunction	-3100 Jan 29 j 23:24	15° $\frac{1}{2}$ 48'38	-1°-25'-46
max. Earth dist.	-3107 Nov 17 j 03:04	2° $\frac{1}{2}$ 26'53	11.06941 AU	minimum elong	-3100 Jan 29 j 23:21	15° $\frac{1}{2}$ 48'37	1°25'54
morning rise	-3107 Dec 04 j 05:59	4° $\frac{1}{2}$ 27'12		max. Earth dist.	-3100 Jan 29 j 17:14	15° $\frac{1}{2}$ 46'39	10.26671 AU
retrograde	-3106 Mar 16 j 09:31	11° $\frac{1}{2}$ 33'17		morning rise	-3100 Feb 16 j 10:56	18° $\frac{1}{2}$ 02'01	
opposition	-3106 May 26 j 12:52	8° $\frac{1}{2}$ 14'06	1°29'26	retrograde	-3100 Jun 02 j 18:55	26° $\frac{1}{2}$ 14'00	
min. Earth dist.	-3106 May 27 j 00:47	8° $\frac{1}{2}$ 11'54	9.02246 AU	opposition	-3100 Aug 10 j 22:03	22° $\frac{1}{2}$ 45'07	-2°-2'-54
direct	-3106 Aug 04 j 18:37	4° $\frac{1}{2}$ 56'17		min. Earth dist.	-3100 Aug 11 j 01:12	22° $\frac{1}{2}$ 44'29	8.19726 AU
evening set	-3106 Nov 12 j 12:19	11° $\frac{1}{2}$ 55'53		direct	-3100 Oct 16 j 15:42	19° $\frac{1}{2}$ 21'15	
				evening set	-3099 Jan 25 j 16:27	27° $\frac{1}{2}$ 12'49	
conjunction	-3106 Nov 29 j 02:19	13° $\frac{1}{2}$ 53'30	1°00'36				
minimum elong	-3106 Nov 29 j 02:21	13° $\frac{1}{2}$ 53'31	1°00'33	conjunction	-3099 Feb 12 j 02:44	29° $\frac{1}{2}$ 27'38	-1°-50'-1
max. Earth dist.	-3106 Nov 28 j 13:11	13° $\frac{1}{2}$ 49'36	10.96979 AU	minimum elong	-3099 Feb 12 j 02:41	29° $\frac{1}{2}$ 27'37	1°50'08
	-3106 Dec 08 j 09:58	15° $\frac{1}{2}$		max. Earth dist.	-3099 Feb 11 j 23:44	29° $\frac{1}{2}$ 26'39	10.13180 AU
morning rise	-3106 Dec 15 j 18:31	15° $\frac{1}{2}$ 51'53			-3099 Feb 16 j 06:31	0° $\frac{1}{2}$	
retrograde	-3105 Mar 28 j 20:33	23° $\frac{1}{2}$ 06'20		morning rise	-3099 Mar 01 j 18:05	1° $\frac{1}{2}$ 44'06	
opposition	-3105 Jun 07 j 20:29	19° $\frac{1}{2}$ 45'44	0°57'27	retrograde	-3099 Jun 17 j 13:25	10° $\frac{1}{2}$ 06'44	
min. Earth dist.	-3105 Jun 08 j 07:46	19° $\frac{1}{2}$ 43'38	8.91178 AU	opposition	-3099 Aug 25 j 02:18	6° $\frac{1}{2}$ 36'32	-2°-30'-4
direct	-3105 Aug 16 j 13:40	16° $\frac{1}{2}$ 27'29		min. Earth dist.	-3099 Aug 25 j 02:34	6° $\frac{1}{2}$ 36'29	8.07260 AU
evening set	-3105 Nov 24 j 02:24	23° $\frac{1}{2}$ 32'09		direct	-3099 Oct 30 j 08:53	3° $\frac{1}{2}$ 11'10	
				evening set	-3098 Feb 09 j 04:59	11° $\frac{1}{2}$ 13'36	
conjunction	-3105 Dec 10 j 19:01	25° $\frac{1}{2}$ 32'01	0°33'01				
minimum elong	-3105 Dec 10 j 19:02	25° $\frac{1}{2}$ 32'01	0°32'56	conjunction	-3098 Feb 26 j 19:08	13° $\frac{1}{2}$ 31'16	-2°-8'-26
max. Earth dist.	-3105 Dec 10 j 05:37	25° $\frac{1}{2}$ 27'59	10.84992 AU	minimum elong	-3098 Feb 26 j 19:05	13° $\frac{1}{2}$ 31'15	2°08'32
morning rise	-3105 Dec 27 j 14:45	27° $\frac{1}{2}$ 32'55		max. Earth dist.	-3098 Feb 26 j 19:33	13° $\frac{1}{2}$ 31'24	10.01788 AU
	-3104 Jan 18 j 06:51	0° $\frac{1}{2}$			-3098 Mar 10 j 02:10	15° $\frac{1}{2}$	
retrograde	-3104 Apr 09 j 15:02	4° $\frac{1}{2}$ 57'09		morning rise	-3098 Mar 16 j 14:06	15° $\frac{1}{2}$ 50'29	
opposition	-3104 Jun 19 j 10:26	1° $\frac{1}{2}$ 34'58	0°22'12	retrograde	-3098 Jul 02 j 14:17	24° $\frac{1}{2}$ 21'22	
min. Earth dist.	-3104 Jun 19 j 21:25	1° $\frac{1}{2}$ 32'54	8.78274 AU	opposition	-3098 Sep 08 j 12:40	20° $\frac{1}{2}$ 50'13	-2°-48'-53
	-3104 Jul 11 j 07:42	30° $\frac{1}{2}$		min. Earth dist.	-3098 Sep 08 j 10:18	20° $\frac{1}{2}$ 50'42	7.97268 AU
direct	-3104 Aug 27 j 12:08	28° $\frac{1}{2}$ 16'00		direct	-3098 Nov 13 j 11:44	17° $\frac{1}{2}$ 23'22	
evening set	-3104 Oct 12 j 00:20	0° $\frac{1}{2}$		evening set	-3097 Feb 24 j 04:58	25° $\frac{1}{2}$ 35'29	
	-3104 Dec 05 j 00:56	5° $\frac{1}{2}$ 27'24					
conjunction	-3104 Dec 21 j 20:30	7° $\frac{1}{2}$ 29'52	0°03'22	conjunction	-3097 Mar 13 j 22:55	27° $\frac{1}{2}$ 55'34	-2°-19'-20
minimum elong	-3104 Dec 21 j 20:31	7° $\frac{1}{2}$ 29'52	0°03'17	minimum elong	-3097 Mar 13 j 22:53	27° $\frac{1}{2}$ 55'33	2°19'24
behind sun begin	-3104 Dec 21 j 13:31	7° $\frac{1}{2}$ 27'45		max. Earth dist.	-3097 Mar 14 j 02:57	27° $\frac{1}{2}$ 56'54	9.93229 AU
behind sun end	-3104 Dec 22 j 03:31	7° $\frac{1}{2}$ 31'59			-3097 Mar 29 j 16:50	0° $\frac{1}{2}$	
max. Earth dist.	-3104 Dec 21 j 07:01	7° $\frac{1}{2}$ 25'45	10.71364 AU	morning rise	-3097 Mar 31 j 21:07	0° $\frac{1}{2}$ 17'00	
morning rise	-3103 Jan 07 j 20:10	9° $\frac{1}{2}$ 33'37		retrograde	-3097 Jul 17 j 17:44	8° $\frac{1}{2}$ 52'47	
desc. node	-3103 Jan 31 j 18:40	12° $\frac{1}{2}$ 17'33		opposition	-3097 Sep 23 j 03:12	5° $\frac{1}{2}$ 21'08	-2°-57'-24
retrograde	-3103 Apr 22 j 18:00	17° $\frac{1}{2}$ 09'00		min. Earth dist.	-3097 Sep 22 j 22:24	5° $\frac{1}{2}$ 22'08	7.90403 AU
opposition	-3103 Jul 02 j 07:32	13° $\frac{1}{2}$ 45'07	0°-15'-9	direct	-3097 Nov 27 j 23:46	1° $\frac{1}{2}$ 52'58	
min. Earth dist.	-3103 Jul 02 j 18:07	13° $\frac{1}{2}$ 43'05	8.63982 AU	evening set	-3096 Mar 10 j 13:39	10° $\frac{1}{2}$ 12'38	
direct	-3103 Sep 08 j 18:37	10° $\frac{1}{2}$ 25'12					
evening set	-3103 Dec 17 j 09:53	17° $\frac{1}{2}$ 44'59		conjunction	-3096 Mar 28 j 11:19	12° $\frac{1}{2}$ 34'33	-2°-21'-30
				minimum elong	-3096 Mar 28 j 11:19	12° $\frac{1}{2}$ 34'33	2°21'33
conjunction	-3102 Jan 03 j 08:56	19° $\frac{1}{2}$ 50'24	0°-27'-22	max. Earth dist.	-3096 Mar 28 j 19:07	12° $\frac{1}{2}$ 37'08	9.88091 AU
minimum elong	-3102 Jan 03 j 08:55	19° $\frac{1}{2}$ 50'23	0°27'29	morning rise	-3096 Apr 15 j 12:16	14° $\frac{1}{2}$ 57'29	
max. Earth dist.	-3102 Jan 02 j 20:51	19° $\frac{1}{2}$ 46'39	10.56608 AU	retrograde	-3096 Jul 31 j 20:52	23° $\frac{1}{2}$ 34'13	
morning rise	-3102 Jan 20 j 12:37	21° $\frac{1}{2}$ 57'17		opposition	-3096 Oct 06 j 19:50	20° $\frac{1}{2}$ 02'31	-2°-54'-26
retrograde	-3102 May 06 j 08:18	29° $\frac{1}{2}$ 44'44		min. Earth dist.	-3096 Oct 06 j 12:33	20° $\frac{1}{2}$ 04'03	7.87137 AU
opposition	-3102 Jul 15 j 12:17	26° $\frac{1}{2}$ 19'08	0°-53'-6	direct	-3096 Dec 11 j 18:21	16° $\frac{1}{2}$ 33'16	
min. Earth dist.	-3102 Jul 15 j 21:21	26° $\frac{1}{2}$ 17'23	8.48930 AU	evening set	-3095 Mar 26 j 03:37	24° $\frac{1}{2}$ 57'37	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), AstroDienst AG 7-Dez-2017 14:39, page 26

Attention, astronomical year style is used: The year -3095 in astronomical counting style is the year 3096 BCE in historical counting style.

conjunction	-3095 Apr 13 j 04:37	27° <del>Κ</del> 20'37	-2°-14'-29	min. Earth dist.	-3090 Dec 29 j 07:02	15° <del>Π</del> 01'03	8.37658 AU
minimum elong	-3095 Apr 13 j 04:40	27° <del>Κ</del> 20'38	2°14'30	direct	-3089 Mar 08 j 19:10	11° <del>Π</del> 30'41	
max. Earth dist.	-3095 Apr 13 j 15:58	27° <del>Κ</del> 24'23	9.86733 AU	evening set	-3089 Jun 23 j 00:26	19° <del>Π</del> 24'37	
morning rise	-3095 May 01 j 07:38	29° <del>Κ</del> 44'14					
	-3095 May 03 j 08:11	0° <del>Υ</del>		conjunction	-3089 Jul 10 j 19:19	21° <del>Π</del> 36'23	0°31'17
retrograde	-3095 Aug 15 j 20:42	8° <del>Υ</del> 17'44		minimum elong	-3089 Jul 10 j 19:17	21° <del>Π</del> 36'23	0°31'24
opposition	-3095 Oct 21 j 12:00	4° <del>Υ</del> 46'29	-2°-39'-59	max. Earth dist.	-3089 Jul 11 j 06:25	21° <del>Π</del> 39'50	10.45233 AU
min. Earth dist.	-3095 Oct 21 j 02:23	4° <del>Υ</del> 48'30	7.87681 AU	morning rise	-3089 Jul 28 j 09:26	23° <del>Π</del> 46'38	
direct	-3095 Dec 26 j 16:46	1° <del>Υ</del> 16'28			-3089 Sep 29 j 05:26	0° <del>Θ</del>	
evening set	-3094 Apr 10 j 19:11	9° <del>Υ</del> 42'13		retrograde	-3089 Nov 05 j 12:53	1° <del>Θ</del> 14'02	
					-3089 Dec 13 j 12:52	30° <del>Ρ</del> <del>Π</del>	
conjunction	-3094 Apr 28 j 22:41	12° <del>Υ</del> 05'26	-1°-58'-42	opposition	-3088 Jan 11 j 19:20	27° <del>Π</del> 52'15	0°57'11
minimum elong	-3094 Apr 28 j 22:45	12° <del>Υ</del> 05'27	1°58'42	min. Earth dist.	-3088 Jan 11 j 10:50	27° <del>Π</del> 53'55	8.52681 AU
max. Earth dist.	-3094 Apr 29 j 12:45	12° <del>Υ</del> 10'05	9.89226 AU	direct	-3088 Mar 21 j 13:17	24° <del>Π</del> 25'03	
morning rise	-3094 May 17 j 02:42	14° <del>Υ</del> 28'46			-3088 Jun 16 j 22:05	0° <del>Θ</del>	
retrograde	-3094 Aug 30 j 14:21	22° <del>Υ</del> 55'13		evening set	-3088 Jul 05 j 11:47	2° <del>Θ</del> 09'12	
opposition	-3094 Nov 05 j 01:17	19° <del>Υ</del> 24'54	-2°-15'-9				
min. Earth dist.	-3094 Nov 04 j 13:54	19° <del>Υ</del> 27'16	7.91981 AU	conjunction	-3088 Jul 23 j 01:34	4° <del>Θ</del> 17'27	1°01'13
direct	-3093 Jan 10 j 15:18	15° <del>Υ</del> 54'27		minimum elong	-3088 Jul 23 j 01:31	4° <del>Θ</del> 17'26	1°01'20
evening set	-3093 Apr 26 j 08:15	24° <del>Υ</del> 18'20		max. Earth dist.	-3088 Jul 23 j 10:14	4° <del>Θ</del> 20'06	10.60269 AU
				morning rise	-3088 Aug 09 j 10:13	6° <del>Θ</del> 24'05	
conjunction	-3093 May 14 j 13:01	26° <del>Υ</del> 40'48	-1°-35'-27	retrograde	-3088 Nov 16 j 21:51	13° <del>Θ</del> 40'54	
minimum elong	-3093 May 14 j 13:05	26° <del>Υ</del> 40'49	1°35'25	opposition	-3087 Jan 23 j 14:12	10° <del>Θ</del> 20'50	1°31'45
max. Earth dist.	-3093 May 15 j 04:50	26° <del>Υ</del> 46'00	9.95377 AU	min. Earth dist.	-3087 Jan 23 j 07:10	10° <del>Θ</del> 22'12	8.67596 AU
morning rise	-3093 Jun 01 j 16:46	29° <del>Υ</del> 02'54		direct	-3087 Apr 03 j 22:18	6° <del>Θ</del> 55'00	
	-3093 Jun 09 j 04:25	0° <del>Ϡ</del>		evening set	-3087 Jul 18 j 11:17	14° <del>Θ</del> 29'35	
retrograde	-3093 Sep 14 j 00:57	7° <del>Ϡ</del> 19'22					
opposition	-3093 Nov 19 j 09:47	3° <del>Ϡ</del> 50'20	-1°-42'-6	conjunction	-3087 Aug 04 j 19:39	16° <del>Θ</del> 34'23	1°27'28
min. Earth dist.	-3093 Nov 18 j 21:24	3° <del>Ϡ</del> 52'55	7.99732 AU	minimum elong	-3087 Aug 04 j 19:36	16° <del>Θ</del> 34'22	1°27'34
direct	-3092 Jan 25 j 11:46	0° <del>Ϡ</del> 19'52		max. Earth dist.	-3087 Aug 05 j 02:19	16° <del>Θ</del> 36'24	10.74818 AU
evening set	-3092 May 10 j 15:07	8° <del>Ϡ</del> 38'57		morning rise	-3087 Aug 21 j 22:41	18° <del>Θ</del> 37'37	
				retrograde	-3087 Nov 28 j 23:38	25° <del>Θ</del> 45'23	
conjunction	-3092 May 28 j 19:41	10° <del>Ϡ</del> 59'44	-1°-6'-37	opposition	-3086 Feb 05 j 02:32	22° <del>Θ</del> 26'49	2°01'04
minimum elong	-3092 May 28 j 19:44	10° <del>Ϡ</del> 59'45	1°06'33	min. Earth dist.	-3086 Feb 04 j 21:58	22° <del>Θ</del> 27'42	8.81712 AU
max. Earth dist.	-3092 May 29 j 12:10	11° <del>Ϡ</del> 05'05	10.04744 AU	direct	-3086 Apr 16 j 22:32	19° <del>Θ</del> 02'24	
morning rise	-3092 Jun 15 j 21:49	13° <del>Ϡ</del> 19'43		evening set	-3086 Jul 30 j 23:30	26° <del>Θ</del> 27'57	
	-3092 Jun 29 j 08:25	15° <del>Ϡ</del>					
retrograde	-3092 Sep 27 j 02:20	21° <del>Ϡ</del> 24'18		conjunction	-3086 Aug 17 j 02:25	28° <del>Θ</del> 29'35	1°49'11
opposition	-3092 Dec 02 j 11:47	17° <del>Ϡ</del> 56'53	-1°-3'-33	minimum elong	-3086 Aug 17 j 02:22	28° <del>Θ</del> 29'34	1°49'16
min. Earth dist.	-3092 Dec 01 j 23:35	17° <del>Ϡ</del> 59'24	8.10400 AU	max. Earth dist.	-3086 Aug 17 j 06:15	28° <del>Θ</del> 30'43	10.88237 AU
	-3091 Jan 14 j 08:27	15° <del>Ϡ</del>			-3086 Aug 29 j 18:47	0° <del>Ω</del>	
direct	-3091 Feb 08 j 04:30	14° <del>Ϡ</del> 26'46		morning rise	-3086 Sep 03 j 00:13	0° <del>Ω</del> 29'44	
	-3091 Mar 05 j 02:19	15° <del>Ϡ</del>		retrograde	-3086 Dec 10 j 19:18	7° <del>Ω</del> 30'05	
evening set	-3091 May 25 j 13:25	22° <del>Ϡ</del> 38'48		opposition	-3085 Feb 17 j 09:01	4° <del>Ω</del> 12'46	2°24'22
				min. Earth dist.	-3085 Feb 17 j 07:28	4° <del>Ω</del> 13'04	8.94425 AU
conjunction	-3091 Jun 12 j 16:08	24° <del>Ϡ</del> 57'06	0°-34'-26	direct	-3085 Apr 29 j 13:29	0° <del>Ω</del> 49'43	
minimum elong	-3091 Jun 12 j 16:10	24° <del>Ϡ</del> 57'06	0°34'22	evening set	-3085 Aug 12 j 01:46	8° <del>Ω</del> 07'04	
max. Earth dist.	-3091 Jun 13 j 07:49	25° <del>Ϡ</del> 02'07	10.16682 AU				
morning rise	-3091 Jun 30 j 15:17	27° <del>Ϡ</del> 14'15		conjunction	-3085 Aug 28 j 23:35	10° <del>Ω</del> 05'56	2°05'51
	-3091 Jul 23 j 15:43	0° <del>Π</del>		minimum elong	-3085 Aug 28 j 23:32	10° <del>Ω</del> 05'56	2°05'55
retrograde	-3091 Oct 10 j 16:29	5° <del>Π</del> 06'04		max. Earth dist.	-3085 Aug 28 j 23:36	10° <del>Ω</del> 05'57	10.99979 AU
opposition	-3091 Dec 16 j 06:12	1° <del>Π</del> 40'30	0°-22'-26	morning rise	-3085 Sep 14 j 16:55	12° <del>Ω</del> 03'30	
min. Earth dist.	-3091 Dec 15 j 19:10	1° <del>Π</del> 42'45	8.23299 AU		-3085 Oct 11 j 17:43	15° <del>Ω</del>	
	-3090 Jan 06 j 19:12	30° <del>Ϡ</del>		retrograde	-3085 Dec 22 j 07:54	18° <del>Ω</del> 58'07	
direct	-3090 Feb 22 j 15:23	28° <del>Ϡ</del> 11'04		opposition	-3084 Feb 29 j 10:20	15° <del>Ω</del> 41'44	2°41'15
	-3090 Apr 10 j 01:19	0° <del>Π</del>		min. Earth dist.	-3084 Feb 29 j 11:38	15° <del>Ω</del> 41'30	9.05208 AU
evening set	-3090 Jun 09 j 00:59	6° <del>Π</del> 14'31			-3084 Mar 09 j 19:54	15° <del>Ϡ</del> <del>Ω</del>	
				direct	-3084 May 10 j 22:37	12° <del>Ω</del> 19'56	
conjunction	-3090 Jun 27 j 00:21	8° <del>Π</del> 29'44	0°-1'-10		-3084 Jul 09 j 14:15	15° <del>Ω</del>	
minimum elong	-3090 Jun 27 j 00:20	8° <del>Π</del> 29'43	0°01'05	evening set	-3084 Aug 22 j 19:16	19° <del>Ω</del> 30'10	
behind sun begin	-3090 Jun 26 j 17:03	8° <del>Π</del> 27'27					
behind sun end	-3090 Jun 27 j 07:37	8° <del>Π</del> 32'00		conjunction	-3084 Sep 08 j 12:46	21° <del>Ω</del> 26'47	2°17'11
max. Earth dist.	-3090 Jun 27 j 13:55	8° <del>Π</del> 34'00	10.30442 AU	minimum elong	-3084 Sep 08 j 12:45	21° <del>Ω</del> 26'46	2°17'14
asc. node	-3090 Jul 10 j 03:30	10° <del>Π</del> 08'49		max. Earth dist.	-3084 Sep 08 j 09:17	21° <del>Ω</del> 25'46	11.09564 AU
morning rise	-3090 Jul 14 j 19:22	10° <del>Π</del> 43'33		morning rise	-3084 Sep 25 j 02:26	23° <del>Ω</del> 22'17	
retrograde	-3090 Oct 23 j 19:04	18° <del>Π</del> 22'45			-3084 Dec 16 j 18:40	0° <del>η</del>	
opposition	-3090 Dec 29 j 16:47	14° <del>Π</del> 59'06	0°18'33	retrograde	-3083 Jan 01 j 19:26	0° <del>η</del> 12'58	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 27

Attention, astronomical year style is used: The year -3083 in astronomical counting style is the year 3084 BCE in historical counting style.

	-3083 Jan 17 j 23:50	30° $\mathbb{R}\Omega$		min. Earth dist.	-3077 May 21 j 21:00	3° $\mathbb{M}$ 13'37	9.05189 AU
opposition	-3083 Mar 12 j 07:57	26° $\Omega$ 57'10	2°51'34		-3077 Jul 24 j 04:17	30° $\mathbb{R}\underline{\Omega}$	
min. Earth dist.	-3083 Mar 12 j 11:17	26° $\Omega$ 56'33	9.13597 AU	direct	-3077 Jul 30 j 19:03	29° $\underline{\Omega}$ 57'50	
direct	-3083 May 23 j 01:38	23° $\Omega$ 36'32			-3077 Aug 06 j 10:07	0° $\mathbb{M}$	
	-3083 Aug 28 j 04:34	0° $\mathbb{M}$		evening set	-3077 Nov 07 j 17:08	6° $\mathbb{M}$ 56'12	
evening set	-3083 Sep 03 j 05:32	0° $\mathbb{M}$ 40'51					
				conjunction	-3077 Nov 24 j 05:58	8° $\mathbb{M}$ 53'04	1°12'23
conjunction	-3083 Sep 19 j 19:41	2° $\mathbb{M}$ 35'47	2°23'06	minimum elong	-3077 Nov 24 j 06:01	8° $\mathbb{M}$ 53'05	1°12'19
minimum elong	-3083 Sep 19 j 19:40	2° $\mathbb{M}$ 35'47	2°23'09	max. Earth dist.	-3077 Nov 23 j 14:43	8° $\mathbb{M}$ 48'33	11.00215 AU
max. Earth dist.	-3083 Sep 19 j 14:03	2° $\mathbb{M}$ 34'09	11.16585 AU	morning rise	-3077 Dec 10 j 20:53	10° $\mathbb{M}$ 50'36	
morning rise	-3083 Oct 06 j 06:26	4° $\mathbb{M}$ 29'48			-3076 Jan 19 j 10:16	15° $\mathbb{M}$	
retrograde	-3082 Jan 13 j 04:53	11° $\mathbb{M}$ 18'21		retrograde	-3076 Mar 22 j 11:59	18° $\mathbb{M}$ 01'29	
opposition	-3082 Mar 24 j 03:09	8° $\mathbb{M}$ 02'51	2°55'20		-3076 May 28 j 07:43	15° $\mathbb{R}\mathbb{M}$	
min. Earth dist.	-3082 Mar 24 j 08:47	8° $\mathbb{M}$ 01'49	9.19262 AU	opposition	-3076 Jun 01 j 13:39	14° $\mathbb{M}$ 41'06	1°12'42
direct	-3082 Jun 03 j 21:05	4° $\mathbb{M}$ 43'15		min. Earth dist.	-3076 Jun 02 j 02:46	14° $\mathbb{M}$ 38'39	8.94735 AU
evening set	-3082 Sep 14 j 10:31	11° $\mathbb{M}$ 43'00		direct	-3076 Aug 10 j 12:59	11° $\mathbb{M}$ 22'30	
					-3076 Oct 17 j 17:58	15° $\mathbb{M}$	
conjunction	-3082 Sep 30 j 22:11	13° $\mathbb{M}$ 36'51	2°23'36	evening set	-3076 Nov 18 j 03:54	18° $\mathbb{M}$ 25'16	
minimum elong	-3082 Sep 30 j 22:11	13° $\mathbb{M}$ 36'51	2°23'39				
max. Earth dist.	-3082 Sep 30 j 14:03	13° $\mathbb{M}$ 34'29	11.20813 AU	conjunction	-3076 Dec 04 j 19:14	20° $\mathbb{M}$ 24'14	0°46'03
morning rise	-3082 Oct 17 j 07:10	15° $\mathbb{M}$ 30'01		minimum elong	-3076 Dec 04 j 19:16	20° $\mathbb{M}$ 24'15	0°45'59
retrograde	-3081 Jan 24 j 14:25	22° $\mathbb{M}$ 18'12		max. Earth dist.	-3076 Dec 04 j 04:37	20° $\mathbb{M}$ 19'51	10.88823 AU
opposition	-3081 Apr 04 j 21:07	19° $\mathbb{M}$ 02'40	2°52'40	morning rise	-3076 Dec 21 j 13:26	22° $\mathbb{M}$ 24'08	
min. Earth dist.	-3081 Apr 05 j 05:36	19° $\mathbb{M}$ 01'07	9.22070 AU	retrograde	-3075 Apr 04 j 01:22	29° $\mathbb{M}$ 44'18	
direct	-3081 Jun 15 j 13:43	15° $\mathbb{M}$ 43'50		opposition	-3075 Jun 14 j 00:51	26° $\mathbb{M}$ 22'17	0°38'48
evening set	-3081 Sep 25 j 11:54	22° $\mathbb{M}$ 40'25		min. Earth dist.	-3075 Jun 14 j 13:02	26° $\mathbb{M}$ 20'00	8.82399 AU
				direct	-3075 Aug 22 j 10:26	23° $\mathbb{M}$ 03'03	
conjunction	-3081 Oct 11 j 21:57	24° $\mathbb{M}$ 33'47	2°18'51		-3075 Nov 28 j 06:15	0° $\mathbb{Z}$	
minimum elong	-3081 Oct 11 j 21:58	24° $\mathbb{M}$ 33'47	2°18'52	evening set	-3075 Nov 29 j 22:15	0° $\mathbb{Z}$ 11'52	
max. Earth dist.	-3081 Oct 11 j 10:37	24° $\mathbb{M}$ 30'30	11.22184 AU				
morning rise	-3081 Oct 28 j 06:25	26° $\mathbb{M}$ 26'43		conjunction	-3075 Dec 16 j 16:37	2° $\mathbb{Z}$ 13'19	0°17'12
	-3081 Dec 01 j 07:22	0° $\underline{\Omega}$		minimum elong	-3075 Dec 16 j 16:38	2° $\mathbb{Z}$ 13'19	0°17'06
retrograde	-3080 Feb 04 j 23:53	3° $\underline{\Omega}$ 16'10		max. Earth dist.	-3075 Dec 16 j 03:44	2° $\mathbb{Z}$ 09'24	10.75746 AU
opposition	-3080 Apr 15 j 15:01	0° $\underline{\Omega}$ 00'15	2°43'46	morning rise	-3074 Jan 02 j 14:26	4° $\mathbb{Z}$ 15'55	
	-3080 Apr 15 j 16:26	30° $\mathbb{R}\mathbb{M}$		retrograde	-3074 Apr 17 j 01:14	11° $\mathbb{Z}$ 46'45	
min. Earth dist.	-3080 Apr 16 j 01:41	29° $\mathbb{M}$ 58'19	9.21988 AU	opposition	-3074 Jun 26 j 18:42	8° $\mathbb{Z}$ 23'01	0°02'12
direct	-3080 Jun 26 j 03:18	26° $\mathbb{M}$ 41'58		min. Earth dist.	-3074 Jun 27 j 04:56	8° $\mathbb{Z}$ 21'04	8.68636 AU
	-3080 Aug 31 j 19:58	0° $\underline{\Omega}$		desc. node	-3074 Jul 18 j 21:23	6° $\mathbb{Z}$ 46'12	
evening set	-3080 Oct 05 j 11:22	3° $\underline{\Omega}$ 36'47		direct	-3074 Sep 03 j 14:12	5° $\mathbb{Z}$ 02'57	
				evening set	-3074 Dec 12 j 02:26	12° $\mathbb{Z}$ 19'23	
conjunction	-3080 Oct 21 j 20:52	5° $\underline{\Omega}$ 30'13	2°09'01				
minimum elong	-3080 Oct 21 j 20:54	5° $\underline{\Omega}$ 30'13	2°09'00	conjunction	-3074 Dec 29 j 00:02	14° $\mathbb{Z}$ 23'39	0°-13'-15
max. Earth dist.	-3080 Oct 21 j 07:59	5° $\underline{\Omega}$ 26'28	11.20698 AU	minimum elong	-3074 Dec 29 j 00:02	14° $\mathbb{Z}$ 23'39	0°13'22
morning rise	-3080 Nov 07 j 05:39	7° $\underline{\Omega}$ 23'30		behind sun begin	-3074 Dec 28 j 19:55	14° $\mathbb{Z}$ 22'24	
retrograde	-3079 Feb 15 j 13:09	14° $\underline{\Omega}$ 15'55		behind sun end	-3074 Dec 29 j 04:09	14° $\mathbb{Z}$ 24'54	
opposition	-3079 Apr 27 j 10:00	10° $\underline{\Omega}$ 59'15	2°28'54	max. Earth dist.	-3074 Dec 28 j 12:17	14° $\mathbb{Z}$ 20'02	10.61487 AU
min. Earth dist.	-3079 Apr 27 j 21:30	10° $\underline{\Omega}$ 57'09	9.19054 AU	morning rise	-3073 Jan 15 j 01:48	16° $\mathbb{Z}$ 29'17	
direct	-3079 Jul 07 j 17:26	7° $\underline{\Omega}$ 41'16		retrograde	-3073 Apr 30 j 12:19	24° $\mathbb{Z}$ 11'45	
evening set	-3079 Oct 16 j 10:46	14° $\underline{\Omega}$ 35'43		opposition	-3073 Jul 09 j 19:53	20° $\mathbb{Z}$ 46'19	0°-35'-44
				min. Earth dist.	-3073 Jul 10 j 04:27	20° $\mathbb{Z}$ 44'40	8.54007 AU
conjunction	-3079 Nov 01 j 20:45	16° $\underline{\Omega}$ 29'48	1°54'24	direct	-3073 Sep 15 j 23:11	17° $\mathbb{Z}$ 25'13	
minimum elong	-3079 Nov 01 j 20:47	16° $\underline{\Omega}$ 29'49	1°54'22	evening set	-3073 Dec 24 j 17:53	24° $\mathbb{Z}$ 50'47	
max. Earth dist.	-3079 Nov 01 j 07:30	16° $\underline{\Omega}$ 25'56	11.16427 AU				
morning rise	-3079 Nov 18 j 06:40	18° $\underline{\Omega}$ 23'58		conjunction	-3072 Jan 10 j 18:53	26° $\mathbb{Z}$ 58'04	0°-43'-53
retrograde	-3078 Feb 27 j 07:35	25° $\underline{\Omega}$ 20'57		minimum elong	-3072 Jan 10 j 18:51	26° $\mathbb{Z}$ 58'03	0°44'00
opposition	-3078 May 09 j 07:23	22° $\underline{\Omega}$ 03'16	2°08'27	max. Earth dist.	-3072 Jan 10 j 08:31	26° $\mathbb{Z}$ 54'49	10.46660 AU
min. Earth dist.	-3078 May 09 j 19:13	22° $\underline{\Omega}$ 01'06	9.13390 AU	morning rise	-3072 Jan 28 j 00:45	29° $\mathbb{Z}$ 06'54	
direct	-3078 Jul 19 j 05:48	18° $\underline{\Omega}$ 45'20			-3072 Feb 04 j 07:44	0° $\mathbb{Z}$	
evening set	-3078 Oct 27 j 11:59	25° $\underline{\Omega}$ 40'55		retrograde	-3072 May 13 j 07:53	7° $\mathbb{Z}$ 01'38	
				opposition	-3072 Jul 22 j 05:19	3° $\mathbb{Z}$ 34'34	-1°-13'-17
conjunction	-3078 Nov 12 j 23:06	27° $\underline{\Omega}$ 36'09	1°35'22	min. Earth dist.	-3072 Jul 22 j 12:04	3° $\mathbb{Z}$ 33'14	8.39181 AU
minimum elong	-3078 Nov 12 j 23:09	27° $\underline{\Omega}$ 36'10	1°35'19	direct	-3072 Sep 27 j 17:21	0° $\mathbb{Z}$ 12'17	
max. Earth dist.	-3078 Nov 12 j 08:51	27° $\underline{\Omega}$ 31'58	11.09522 AU	evening set	-3071 Jan 05 j 21:45	7° $\mathbb{Z}$ 48'09	
morning rise	-3078 Nov 29 j 11:09	29° $\underline{\Omega}$ 31'46					
	-3078 Dec 03 j 13:54	0° $\mathbb{M}$		conjunction	-3071 Jan 23 j 02:25	9° $\mathbb{Z}$ 58'32	-1°-13'-14
retrograde	-3077 Mar 11 j 05:56	6° $\mathbb{M}$ 34'55		minimum elong	-3071 Jan 23 j 02:22	9° $\mathbb{Z}$ 58'31	1°13'21
opposition	-3077 May 21 j 08:16	3° $\mathbb{M}$ 15'58	1°42'51	max. Earth dist.	-3071 Jan 22 j 18:37	9° $\mathbb{Z}$ 56'04	10.31976 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 28

Attention, astronomical year style is used: The year -3071 in astronomical counting style is the year 3072 BCE in historical counting style.

morning rise	-3071 Feb 09 j 12:21	12° $\overline{\text{S}}$ 10'37		evening set	-3065 Apr 04 j 02:47	3° $\overline{\text{Y}}$ 17'06	
retrograde	-3071 May 27 j 12:55	20° $\overline{\text{S}}$ 17'37					
opposition	-3071 Aug 04 j 22:53	16° $\overline{\text{S}}$ 49'02	-1°-48'-20	conjunction	-3065 Apr 22 j 05:04	5° $\overline{\text{Y}}$ 40'11	-2°-6'-45
min. Earth dist.	-3071 Aug 05 j 03:26	16° $\overline{\text{S}}$ 48'07	8.24909 AU	minimum elong	-3065 Apr 22 j 05:07	5° $\overline{\text{Y}}$ 40'12	2°06'45
direct	-3071 Oct 10 j 22:11	13° $\overline{\text{S}}$ 25'28		max. Earth dist.	-3065 Apr 22 j 19:00	5° $\overline{\text{Y}}$ 44'49	9.88818 AU
evening set	-3070 Jan 19 j 15:11	21° $\overline{\text{S}}$ 12'20		morning rise	-3065 May 10 j 08:38	8° $\overline{\text{Y}}$ 03'37	
				retrograde	-3065 Aug 24 j 10:13	16° $\overline{\text{Y}}$ 33'22	
conjunction	-3070 Feb 05 j 23:43	23° $\overline{\text{S}}$ 25'51	-1°-39'-31	opposition	-3065 Oct 29 j 21:38	13° $\overline{\text{Y}}$ 03'05	-2°-27'-21
minimum elong	-3070 Feb 05 j 23:40	23° $\overline{\text{S}}$ 25'50	1°39'37	min. Earth dist.	-3065 Oct 29 j 10:49	13° $\overline{\text{Y}}$ 05'21	7.90920 AU
max. Earth dist.	-3070 Feb 05 j 19:47	23° $\overline{\text{S}}$ 24'35	10.18213 AU	direct	-3064 Jan 04 j 05:12	9° $\overline{\text{Y}}$ 33'22	
morning rise	-3070 Feb 23 j 13:29	25° $\overline{\text{S}}$ 41'05		evening set	-3064 Apr 18 j 17:26	17° $\overline{\text{Y}}$ 57'56	
	-3070 Apr 01 j 13:50	0° $\approx$					
retrograde	-3070 Jun 11 j 03:27	3° $\approx$ 59'24		conjunction	-3064 May 06 j 21:32	20° $\overline{\text{Y}}$ 20'39	-1°-46'-40
opposition	-3070 Aug 19 j 00:00	0° $\approx$ 29'33	-2°-18'-32	minimum elong	-3064 May 06 j 21:36	20° $\overline{\text{Y}}$ 20'40	1°46'39
min. Earth dist.	-3070 Aug 19 j 01:30	0° $\approx$ 29'15	8.11987 AU	max. Earth dist.	-3064 May 07 j 12:26	20° $\overline{\text{Y}}$ 25'34	9.93590 AU
	-3070 Aug 25 j 02:33	30° $\overline{\text{R}}$ $\overline{\text{S}}$		morning rise	-3064 May 25 j 01:34	22° $\overline{\text{Y}}$ 43'15	
direct	-3070 Oct 24 j 11:59	27° $\overline{\text{S}}$ 04'41			-3064 Aug 04 j 00:29	0° $\overline{\text{S}}$	
	-3070 Dec 20 j 21:03	0° $\approx$		retrograde	-3064 Sep 07 j 00:12	1° $\overline{\text{S}}$ 04'04	
evening set	-3069 Feb 02 j 22:04	5° $\approx$ 02'35			-3064 Oct 11 j 04:42	30° $\overline{\text{R}}$ $\overline{\text{Y}}$	
				opposition	-3064 Nov 12 j 08:28	27° $\overline{\text{Y}}$ 34'58	-1°-57'-44
conjunction	-3069 Feb 20 j 10:31	7° $\approx$ 19'03	-2°00'-49	min. Earth dist.	-3064 Nov 11 j 21:18	27° $\overline{\text{Y}}$ 37'18	7.97273 AU
minimum elong	-3069 Feb 20 j 10:28	7° $\approx$ 19'02	2°00'55	direct	-3063 Jan 18 j 03:54	24° $\overline{\text{Y}}$ 05'00	
max. Earth dist.	-3069 Feb 20 j 10:52	7° $\approx$ 19'10	10.06185 AU		-3063 Apr 14 j 10:35	0° $\overline{\text{S}}$	
morning rise	-3069 Mar 10 j 03:50	9° $\approx$ 37'09		evening set	-3063 May 04 j 03:31	2° $\overline{\text{S}}$ 26'04	
	-3069 Apr 26 j 06:56	15° $\approx$					
retrograde	-3069 Jun 26 j 02:00	18° $\approx$ 04'54		conjunction	-3063 May 22 j 08:09	4° $\overline{\text{S}}$ 47'32	-1°-20'-6
	-3069 Aug 28 j 01:14	15° $\overline{\text{R}}$ $\approx$		minimum elong	-3063 May 22 j 08:13	4° $\overline{\text{S}}$ 47'33	1°20'04
opposition	-3069 Sep 02 j 08:00	14° $\approx$ 34'06	-2°-41'-25	max. Earth dist.	-3063 May 22 j 22:52	4° $\overline{\text{S}}$ 52'20	10.01526 AU
min. Earth dist.	-3069 Sep 02 j 05:59	14° $\approx$ 34'31	8.01201 AU	morning rise	-3063 Jun 09 j 11:18	7° $\overline{\text{S}}$ 08'26	
direct	-3069 Nov 07 j 10:27	11° $\approx$ 07'58			-3063 Sep 03 j 06:39	15° $\overline{\text{S}}$	
	-3068 Jan 12 j 23:32	15° $\approx$		retrograde	-3063 Sep 21 j 04:59	15° $\overline{\text{S}}$ 18'12	
evening set	-3068 Feb 17 j 17:10	19° $\approx$ 16'04			-3063 Oct 09 j 04:33	15° $\overline{\text{R}}$ $\overline{\text{S}}$	
				opposition	-3063 Nov 26 j 13:30	11° $\overline{\text{S}}$ 50'36	-1°-21'-20
conjunction	-3068 Mar 06 j 09:28	21° $\approx$ 35'08	-2°-15'-19	min. Earth dist.	-3063 Nov 26 j 02:18	11° $\overline{\text{S}}$ 52'55	8.06504 AU
minimum elong	-3068 Mar 06 j 09:27	21° $\approx$ 35'07	2°15'24	direct	-3062 Feb 01 j 23:50	8° $\overline{\text{S}}$ 20'48	
max. Earth dist.	-3068 Mar 06 j 14:14	21° $\approx$ 36'42	9.96676 AU		-3062 May 06 j 07:34	15° $\overline{\text{S}}$	
morning rise	-3068 Mar 24 j 06:05	23° $\approx$ 55'39		evening set	-3062 May 19 j 06:07	16° $\overline{\text{S}}$ 36'01	
	-3068 May 17 j 07:36	0° $\overline{\text{H}}$					
retrograde	-3068 Jul 10 j 05:36	2° $\overline{\text{H}}$ 29'54		conjunction	-3062 Jun 06 j 09:44	18° $\overline{\text{S}}$ 55'25	0°-49'-10
	-3068 Sep 03 j 08:18	30° $\overline{\text{R}}$ $\approx$		minimum elong	-3062 Jun 06 j 09:46	18° $\overline{\text{S}}$ 55'25	0°49'06
opposition	-3068 Sep 15 j 21:15	28° $\approx$ 58'34	-2°-54'-47	max. Earth dist.	-3062 Jun 06 j 23:51	18° $\overline{\text{S}}$ 59'58	10.12064 AU
min. Earth dist.	-3068 Sep 15 j 15:52	28° $\approx$ 59'41	7.93272 AU	morning rise	-3062 Jun 24 j 10:30	21° $\overline{\text{S}}$ 13'51	
direct	-3068 Nov 20 j 18:18	25° $\approx$ 31'15		retrograde	-3062 Oct 04 j 23:32	29° $\overline{\text{S}}$ 11'26	
	-3067 Jan 31 j 20:05	0° $\overline{\text{H}}$		opposition	-3062 Dec 10 j 11:35	25° $\overline{\text{S}}$ 45'32	0°-41'-2
evening set	-3067 Mar 03 j 22:37	3° $\overline{\text{H}}$ 47'50		min. Earth dist.	-3062 Dec 10 j 00:24	25° $\overline{\text{S}}$ 47'48	8.18076 AU
				direct	-3061 Feb 16 j 14:02	22° $\overline{\text{S}}$ 16'14	
conjunction	-3067 Mar 21 j 18:42	6° $\overline{\text{H}}$ 08'59	-2°-21'-33		-3061 May 30 j 18:19	0° $\overline{\text{H}}$	
minimum elong	-3067 Mar 21 j 18:42	6° $\overline{\text{H}}$ 08'59	2°21'37	evening set	-3061 Jun 02 j 22:58	0° $\overline{\text{H}}$ 23'44	
max. Earth dist.	-3067 Mar 22 j 03:26	6° $\overline{\text{H}}$ 11'53	9.90359 AU				
morning rise	-3067 Apr 08 j 18:17	8° $\overline{\text{H}}$ 31'18		conjunction	-3061 Jun 21 j 00:04	2° $\overline{\text{H}}$ 40'23	0°-16'-6
retrograde	-3067 Jul 25 j 10:13	17° $\overline{\text{H}}$ 08'13		minimum elong	-3061 Jun 21 j 00:04	2° $\overline{\text{H}}$ 40'23	0°16'02
opposition	-3067 Sep 30 j 13:31	13° $\overline{\text{H}}$ 36'47	-2°-57'-4	max. Earth dist.	-3061 Jun 21 j 13:30	2° $\overline{\text{H}}$ 44'38	10.24636 AU
min. Earth dist.	-3067 Sep 30 j 05:27	13° $\overline{\text{H}}$ 38'28	7.88761 AU	morning rise	-3061 Jul 08 j 21:07	4° $\overline{\text{H}}$ 55'45	
direct	-3067 Dec 05 j 09:37	10° $\overline{\text{H}}$ 08'26		retrograde	-3061 Oct 18 j 08:26	12° $\overline{\text{H}}$ 40'52	
evening set	-3066 Mar 19 j 11:11	18° $\overline{\text{H}}$ 30'55		asc. node	-3061 Dec 20 j 23:52	9° $\overline{\text{H}}$ 31'37	
				opposition	-3061 Dec 24 j 02:02	9° $\overline{\text{H}}$ 16'42	0°00'20
conjunction	-3066 Apr 06 j 10:43	20° $\overline{\text{H}}$ 53'28	-2°-18'-41	min. Earth dist.	-3061 Dec 23 j 15:45	9° $\overline{\text{H}}$ 18'46	8.31379 AU
minimum elong	-3066 Apr 06 j 10:44	20° $\overline{\text{H}}$ 53'28	2°18'43	direct	-3060 Mar 01 j 20:26	5° $\overline{\text{H}}$ 48'09	
max. Earth dist.	-3066 Apr 06 j 22:31	20° $\overline{\text{H}}$ 57'23	9.87686 AU	evening set	-3060 Jun 16 j 04:27	13° $\overline{\text{H}}$ 46'41	
morning rise	-3066 Apr 24 j 12:44	23° $\overline{\text{H}}$ 16'48					
	-3066 Jun 24 j 20:36	0° $\overline{\text{Y}}$		conjunction	-3060 Jul 04 j 01:42	16° $\overline{\text{H}}$ 00'07	0°17'00
retrograde	-3066 Aug 09 j 12:52	1° $\overline{\text{Y}}$ 52'09		minimum elong	-3060 Jul 04 j 01:41	16° $\overline{\text{H}}$ 00'07	0°17'06
	-3066 Sep 24 j 18:15	30° $\overline{\text{R}}$ $\overline{\text{H}}$		max. Earth dist.	-3060 Jul 04 j 13:40	16° $\overline{\text{H}}$ 03'51	10.38553 AU
opposition	-3066 Oct 15 j 06:33	28° $\overline{\text{H}}$ 21'05	-2°-47'-43	morning rise	-3060 Jul 21 j 18:05	18° $\overline{\text{H}}$ 12'03	
min. Earth dist.	-3066 Oct 14 j 20:45	28° $\overline{\text{H}}$ 23'08	7.87975 AU	retrograde	-3060 Oct 30 j 08:32	25° $\overline{\text{H}}$ 45'05	
direct	-3066 Dec 20 j 06:13	24° $\overline{\text{H}}$ 51'55		opposition	-3059 Jan 05 j 08:38	22° $\overline{\text{H}}$ 22'39	0°40'19
	-3065 Mar 08 j 13:09	0° $\overline{\text{Y}}$		min. Earth dist.	-3059 Jan 05 j 00:13	22° $\overline{\text{H}}$ 24'20	8.45685 AU

# Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 29

Attention, astronomical year style is used: The year -3059 in astronomical counting style is the year 3060 BCE in historical counting style.

direct	-3059 Mar 15 j 17:42	18° $\Pi$ 55'03		evening set	-3053 Sep 09 j 21:56	7° $\Pi$ 06'31	
evening set	-3059 Jun 29 j 22:01	26° $\Pi$ 44'03					
				conjunction	-3053 Sep 26 j 10:35	9° $\Pi$ 00'55	2°24'08
conjunction	-3059 Jul 17 j 14:20	28° $\Pi$ 54'01	0°48'15	minimum elong	-3053 Sep 26 j 10:35	9° $\Pi$ 00'55	2°24'11
minimum elong	-3059 Jul 17 j 14:18	28° $\Pi$ 54'00	0°48'22	max. Earth dist.	-3053 Sep 26 j 03:29	8° $\Pi$ 58'52	11.17652 AU
max. Earth dist.	-3059 Jul 17 j 23:42	28° $\Pi$ 56'54	10.53060 AU	morning rise	-3053 Oct 12 j 20:30	10° $\Pi$ 54'34	
	-3059 Jul 26 j 12:37	0° $\Theta$		retrograde	-3052 Jan 19 j 21:58	17° $\Pi$ 43'02	
morning rise	-3059 Aug 04 j 01:24	1° $\Theta$ 02'23		opposition	-3052 Mar 30 j 02:04	14° $\Pi$ 27'04	2°54'48
retrograde	-3059 Nov 11 j 20:54	8° $\Theta$ 24'18		min. Earth dist.	-3052 Mar 30 j 08:26	14° $\Pi$ 25'54	9.19770 AU
opposition	-3058 Jan 18 j 07:31	5° $\Theta$ 03'30	1°16'57	direct	-3052 Jun 09 j 21:06	11° $\Pi$ 07'26	
min. Earth dist.	-3058 Jan 18 j 01:27	5° $\Theta$ 04'41	8.60246 AU	evening set	-3052 Sep 20 j 00:38	18° $\Pi$ 05'35	
direct	-3058 Mar 29 j 08:14	1° $\Theta$ 36'59					
evening set	-3058 Jul 13 j 03:22	9° $\Theta$ 16'24		conjunction	-3052 Oct 06 j 11:26	19° $\Pi$ 59'12	2°21'41
				minimum elong	-3052 Oct 06 j 11:27	19° $\Pi$ 59'12	2°21'43
conjunction	-3058 Jul 30 j 14:12	11° $\Theta$ 22'52	1°16'18	max. Earth dist.	-3052 Oct 06 j 03:08	19° $\Pi$ 56'48	11.20786 AU
minimum elong	-3058 Jul 30 j 14:09	11° $\Theta$ 22'51	1°16'25	morning rise	-3052 Oct 22 j 20:03	21° $\Pi$ 52'15	
max. Earth dist.	-3058 Jul 30 j 20:13	11° $\Theta$ 24'42	10.67438 AU	retrograde	-3051 Jan 30 j 08:19	28° $\Pi$ 41'04	
morning rise	-3058 Aug 16 j 19:51	13° $\Theta$ 27'46		opposition	-3051 Apr 10 j 19:45	25° $\Pi$ 24'58	2°48'35
retrograde	-3058 Nov 24 j 00:49	20° $\Theta$ 39'59		min. Earth dist.	-3051 Apr 11 j 03:22	25° $\Pi$ 23'35	9.21525 AU
opposition	-3057 Jan 30 j 23:12	17° $\Theta$ 20'36	1°48'47	direct	-3051 Jun 21 j 11:19	22° $\Pi$ 06'10	
min. Earth dist.	-3057 Jan 30 j 19:03	17° $\Theta$ 21'24	8.74363 AU	evening set	-3051 Oct 01 j 00:34	29° $\Pi$ 01'39	
direct	-3057 Apr 11 j 14:12	13° $\Theta$ 55'17			-3051 Oct 09 j 12:16	0° $\Omega$	
evening set	-3057 Jul 25 j 20:49	21° $\Theta$ 25'26					
				conjunction	-3051 Oct 17 j 10:21	0° $\Omega$ 55'02	2°14'03
conjunction	-3057 Aug 12 j 02:10	23° $\Theta$ 28'37	1°40'10	minimum elong	-3051 Oct 17 j 10:23	0° $\Omega$ 55'02	2°14'03
minimum elong	-3057 Aug 12 j 02:07	23° $\Theta$ 28'36	1°40'15	max. Earth dist.	-3051 Oct 17 j 00:28	0° $\Omega$ 52'10	11.21173 AU
max. Earth dist.	-3057 Aug 12 j 05:17	23° $\Theta$ 29'33	10.81031 AU	morning rise	-3051 Nov 02 j 18:46	2° $\Omega$ 48'06	
morning rise	-3057 Aug 29 j 02:33	25° $\Theta$ 30'18		retrograde	-3050 Feb 10 j 19:46	9° $\Omega$ 38'55	
	-3057 Oct 11 j 00:56	0° $\Omega$		opposition	-3050 Apr 22 j 14:06	6° $\Omega$ 22'26	2°36'17
retrograde	-3057 Dec 05 j 23:30	2° $\Omega$ 34'23		min. Earth dist.	-3050 Apr 22 j 23:39	6° $\Omega$ 20'41	9.20505 AU
	-3056 Feb 02 j 15:57	30° $\Omega$		direct	-3050 Jul 02 j 23:26	3° $\Omega$ 04'13	
opposition	-3056 Feb 12 j 08:21	29° $\Omega$ 16'11	2°14'53	evening set	-3050 Oct 11 j 23:45	9° $\Omega$ 58'31	
min. Earth dist.	-3056 Feb 12 j 05:50	29° $\Omega$ 16'40	8.87396 AU				
direct	-3056 Apr 23 j 10:12	25° $\Omega$ 52'07		conjunction	-3050 Oct 28 j 09:19	11° $\Omega$ 52'13	2°01'30
	-3056 Jul 07 j 12:28	0° $\Omega$		minimum elong	-3050 Oct 28 j 09:22	11° $\Omega$ 52'14	2°01'28
evening set	-3056 Aug 06 j 03:39	3° $\Omega$ 13'41		max. Earth dist.	-3050 Oct 27 j 21:16	11° $\Omega$ 48'43	11.18813 AU
				morning rise	-3050 Nov 13 j 18:42	13° $\Omega$ 45'53	
conjunction	-3056 Aug 23 j 03:54	5° $\Omega$ 13'57	1°59'09	retrograde	-3049 Feb 22 j 10:30	20° $\Omega$ 40'19	
minimum elong	-3056 Aug 23 j 03:52	5° $\Omega$ 13'56	1°59'14	opposition	-3049 May 04 j 10:00	17° $\Omega$ 23'09	2°18'13
max. Earth dist.	-3056 Aug 23 j 04:58	5° $\Omega$ 14'16	10.93257 AU	min. Earth dist.	-3049 May 04 j 21:09	17° $\Omega$ 21'07	9.16746 AU
morning rise	-3056 Sep 08 j 23:19	7° $\Omega$ 12'49		direct	-3049 Jul 14 j 11:55	14° $\Omega$ 05'17	
retrograde	-3056 Dec 16 j 15:25	14° $\Omega$ 10'25		evening set	-3049 Oct 22 j 23:48	20° $\Omega$ 59'55	
opposition	-3055 Feb 23 j 12:01	10° $\Omega$ 53'10	2°34'43				
min. Earth dist.	-3055 Feb 23 j 11:38	10° $\Omega$ 53'14	8.98818 AU	conjunction	-3049 Nov 08 j 10:11	22° $\Omega$ 54'28	1°44'21
direct	-3055 May 05 j 21:55	7° $\Omega$ 30'19		minimum elong	-3049 Nov 08 j 10:14	22° $\Omega$ 54'28	1°44'18
evening set	-3055 Aug 18 j 01:09	14° $\Omega$ 44'17		max. Earth dist.	-3049 Nov 07 j 21:14	22° $\Omega$ 50'40	11.13772 AU
	-3055 Aug 20 j 07:41	15° $\Omega$		morning rise	-3049 Nov 24 j 21:16	24° $\Omega$ 49'16	
					-3048 Jan 17 j 00:17	0° $\Pi$	
conjunction	-3055 Sep 03 j 20:46	16° $\Omega$ 42'03	2°12'55	retrograde	-3048 Mar 05 j 06:03	1° $\Pi$ 48'57	
minimum elong	-3055 Sep 03 j 20:44	16° $\Omega$ 42'03	2°12'58		-3048 Apr 24 j 07:55	30° $\Omega$	
max. Earth dist.	-3055 Sep 03 j 19:33	16° $\Omega$ 41'42	11.03656 AU	opposition	-3048 May 15 j 08:49	28° $\Omega$ 30'50	1°54'47
morning rise	-3055 Sep 20 j 11:57	18° $\Omega$ 38'36		min. Earth dist.	-3048 May 15 j 20:12	28° $\Omega$ 28'45	9.10356 AU
retrograde	-3055 Dec 28 j 04:26	25° $\Omega$ 31'27		direct	-3048 Jul 25 j 01:38	25° $\Omega$ 13'06	
opposition	-3054 Mar 07 j 11:36	22° $\Omega$ 14'55	2°47'59		-3048 Oct 13 j 15:24	0° $\Pi$	
min. Earth dist.	-3054 Mar 07 j 14:06	22° $\Omega$ 14'27	9.08220 AU	evening set	-3048 Nov 02 j 02:35	2° $\Pi$ 09'33	
direct	-3054 May 18 j 02:51	18° $\Omega$ 53'15					
evening set	-3054 Aug 29 j 14:38	26° $\Omega$ 00'40		conjunction	-3048 Nov 18 j 14:36	4° $\Pi$ 05'28	1°23'02
				minimum elong	-3048 Nov 18 j 14:38	4° $\Pi$ 05'29	1°22'59
conjunction	-3054 Sep 15 j 06:16	27° $\Omega$ 56'28	2°21'15	max. Earth dist.	-3048 Nov 18 j 02:03	4° $\Pi$ 01'46	11.06193 AU
minimum elong	-3054 Sep 15 j 06:15	27° $\Omega$ 56'28	2°21'17	morning rise	-3048 Dec 05 j 03:58	6° $\Pi$ 01'53	
max. Earth dist.	-3054 Sep 15 j 01:43	27° $\Omega$ 55'09	11.11877 AU	retrograde	-3047 Mar 17 j 10:07	13° $\Pi$ 08'27	
morning rise	-3054 Oct 01 j 18:19	29° $\Omega$ 51'17		opposition	-3047 May 27 j 11:46	9° $\Pi$ 49'08	1°26'34
	-3054 Oct 03 j 00:55	0° $\Pi$		min. Earth dist.	-3047 May 27 j 22:43	9° $\Pi$ 47'07	9.01539 AU
retrograde	-3053 Jan 08 j 12:53	6° $\Pi$ 41'05		direct	-3047 Aug 05 j 17:30	6° $\Pi$ 31'17	
opposition	-3053 Mar 19 j 07:56	3° $\Pi$ 24'58	2°54'39	evening set	-3047 Nov 13 j 10:21	13° $\Pi$ 31'08	
min. Earth dist.	-3053 Mar 19 j 12:50	3° $\Pi$ 24'04	9.15285 AU		-3047 Nov 25 j 23:32	15° $\Pi$	
direct	-3053 May 30 j 01:06	0° $\Pi$ 04'23		max. Earth dist.	-3047 Nov 29 j 11:35	15° $\Pi$ 25'02	10.96328 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodiens AG 7-Dez-2017 14:39, page 30

Attention, astronomical year style is used: The year -3047 in astronomical counting style is the year 3048 BCE in historical counting style.

conjunction	-3047 Nov 30 j 00:28	15° $\mathbb{M}$ 28'52	0°58'07		-3040 Feb 05 j 18:45	0° $\approx$	
minimum elong	-3047 Nov 30 j 00:30	15° $\mathbb{M}$ 28'53	0°58'04				
morning rise	-3047 Dec 16 j 16:53	17° $\mathbb{M}$ 27'23		conjunction	-3040 Feb 14 j 02:06	1° $\approx$ 04'34	-1°-51'-44
retrograde	-3046 Mar 29 j 19:46	24° $\mathbb{M}$ 42'16		minimum elong	-3040 Feb 14 j 02:02	1° $\approx$ 04'33	1°51'50
opposition	-3046 Jun 08 j 19:51	21° $\mathbb{M}$ 21'35	0°54'16	max. Earth dist.	-3040 Feb 13 j 22:30	1° $\approx$ 03'24	10.13645 AU
min. Earth dist.	-3046 Jun 09 j 06:48	21° $\mathbb{M}$ 19'33	8.90595 AU	morning rise	-3040 Mar 02 j 17:34	3° $\approx$ 21'00	
direct	-3046 Aug 17 j 10:45	18° $\mathbb{M}$ 03'19		retrograde	-3040 Jun 18 j 13:23	11° $\approx$ 43'17	
evening set	-3046 Nov 25 j 00:47	25° $\mathbb{M}$ 08'12		opposition	-3040 Aug 26 j 01:07	8° $\approx$ 13'12	-2°-31'-50
				min. Earth dist.	-3040 Aug 26 j 01:51	8° $\approx$ 13'03	8.07788 AU
conjunction	-3046 Dec 11 j 17:29	27° $\mathbb{M}$ 08'10	0°30'19	direct	-3040 Oct 31 j 07:07	4° $\approx$ 47'53	
minimum elong	-3046 Dec 11 j 17:30	27° $\mathbb{M}$ 08'11	0°30'14	evening set	-3039 Feb 10 j 04:06	12° $\approx$ 50'06	
max. Earth dist.	-3046 Dec 11 j 04:03	27° $\mathbb{M}$ 04'08	10.84501 AU		-3039 Feb 26 j 18:55	15° $\approx$	
morning rise	-3046 Dec 28 j 13:32	29° $\mathbb{M}$ 09'11					
	-3045 Jan 04 j 19:35	0° $\mathbb{A}$		conjunction	-3039 Feb 27 j 18:15	15° $\approx$ 07'40	-2°-9'-34
retrograde	-3045 Apr 11 j 13:43	6° $\mathbb{A}$ 33'48		minimum elong	-3039 Feb 27 j 18:13	15° $\approx$ 07'39	2°09'39
opposition	-3045 Jun 21 j 10:01	3° $\mathbb{A}$ 11'33	0°18'49	max. Earth dist.	-3039 Feb 27 j 18:24	15° $\approx$ 07'43	10.02370 AU
min. Earth dist.	-3045 Jun 21 j 21:02	3° $\mathbb{A}$ 09'29	8.77883 AU	morning rise	-3039 Mar 17 j 13:19	17° $\approx$ 26'48	
	-3045 Aug 17 j 11:06	30° $\mathbb{R}$		retrograde	-3039 Jul 03 j 12:52	25° $\approx$ 57'12	
direct	-3045 Aug 29 j 11:37	29° $\mathbb{M}$ 52'34		opposition	-3039 Sep 09 j 11:03	22° $\approx$ 26'11	-2°-49'-52
	-3045 Sep 10 j 10:10	0° $\mathbb{A}$		min. Earth dist.	-3039 Sep 09 j 09:08	22° $\approx$ 26'34	7.97899 AU
evening set	-3045 Dec 06 j 23:41	7° $\mathbb{A}$ 04'09		direct	-3039 Nov 14 j 11:27	18° $\approx$ 59'24	
				evening set	-3038 Feb 25 j 03:48	27° $\approx$ 11'12	
conjunction	-3045 Dec 23 j 19:27	9° $\mathbb{A}$ 06'42	0°00'32				
minimum elong	-3045 Dec 23 j 19:28	9° $\mathbb{A}$ 06'42	0°00'26	conjunction	-3038 Mar 14 j 21:54	29° $\approx$ 31'10	-2°-19'-49
behind sun begin	-3045 Dec 23 j 12:26	9° $\mathbb{A}$ 04'35		minimum elong	-3038 Mar 14 j 21:53	29° $\approx$ 31'10	2°19'53
behind sun end	-3045 Dec 24 j 02:29	9° $\mathbb{A}$ 08'49		max. Earth dist.	-3038 Mar 15 j 02:05	29° $\approx$ 32'33	9.93901 AU
max. Earth dist.	-3045 Dec 23 j 06:57	9° $\mathbb{A}$ 02'53	10.71087 AU		-3038 Mar 18 j 13:03	0° $\mathbb{H}$	
desc. node	-3045 Dec 30 j 06:16	9° $\mathbb{A}$ 54'00		morning rise	-3038 Apr 01 j 20:09	1° $\mathbb{H}$ 52'29	
morning rise	-3044 Jan 09 j 19:18	11° $\mathbb{A}$ 10'32		retrograde	-3038 Jul 18 j 14:28	10° $\mathbb{H}$ 27'39	
retrograde	-3044 Apr 23 j 17:46	18° $\mathbb{A}$ 46'08		opposition	-3038 Sep 24 j 01:02	6° $\mathbb{H}$ 56'08	-2°-57'-32
opposition	-3044 Jul 03 j 07:03	15° $\mathbb{A}$ 22'13	0°-18'-34	min. Earth dist.	-3038 Sep 23 j 20:19	6° $\mathbb{H}$ 57'07	7.91107 AU
min. Earth dist.	-3044 Jul 03 j 17:06	15° $\mathbb{A}$ 20'18	8.63829 AU	direct	-3038 Nov 28 j 23:09	3° $\mathbb{H}$ 28'02	
direct	-3044 Sep 09 j 18:12	12° $\mathbb{A}$ 02'18		evening set	-3037 Mar 12 j 12:10	11° $\mathbb{H}$ 47'17	
evening set	-3044 Dec 18 j 08:53	19° $\mathbb{A}$ 22'09					
				conjunction	-3037 Mar 30 j 10:01	14° $\mathbb{H}$ 09'06	-2°-21'-19
conjunction	-3043 Jan 04 j 08:08	21° $\mathbb{A}$ 27'35	0°-30'-6	minimum elong	-3037 Mar 30 j 10:02	14° $\mathbb{H}$ 09'07	2°21'21
minimum elong	-3043 Jan 04 j 08:07	21° $\mathbb{A}$ 27'35	0°30'13	max. Earth dist.	-3037 Mar 30 j 18:18	14° $\mathbb{H}$ 11'52	9.88816 AU
max. Earth dist.	-3043 Jan 03 j 21:28	21° $\mathbb{A}$ 24'17	10.56563 AU	morning rise	-3037 Apr 17 j 10:56	16° $\mathbb{H}$ 31'54	
morning rise	-3043 Jan 21 j 11:51	23° $\mathbb{A}$ 34'30		retrograde	-3037 Aug 02 j 16:59	25° $\mathbb{H}$ 07'55	
	-3043 Mar 27 j 10:44	0° $\mathbb{B}$		opposition	-3037 Oct 08 j 17:06	21° $\mathbb{H}$ 36'21	-2°-53'-45
retrograde	-3043 May 07 j 07:50	1° $\mathbb{B}$ 22'03		min. Earth dist.	-3037 Oct 08 j 09:29	21° $\mathbb{H}$ 37'57	7.87871 AU
	-3043 Jun 17 j 22:20	30° $\mathbb{R}$		direct	-3037 Dec 13 j 16:21	18° $\mathbb{H}$ 07'11	
opposition	-3043 Jul 16 j 11:46	27° $\mathbb{A}$ 56'26	0°-56'-23	evening set	-3036 Mar 27 j 01:37	26° $\mathbb{H}$ 31'01	
min. Earth dist.	-3043 Jul 16 j 19:46	27° $\mathbb{A}$ 54'53	8.49000 AU				
direct	-3043 Sep 22 j 08:08	24° $\mathbb{A}$ 35'23		conjunction	-3036 Apr 14 j 02:46	28° $\mathbb{H}$ 53'55	-2°-13'-40
	-3043 Dec 13 j 19:20	0° $\mathbb{B}$		minimum elong	-3036 Apr 14 j 02:49	28° $\mathbb{H}$ 53'56	2°13'40
evening set	-3043 Dec 31 j 06:00	2° $\mathbb{B}$ 04'57		max. Earth dist.	-3036 Apr 14 j 14:40	28° $\mathbb{H}$ 57'52	9.87469 AU
					-3036 Apr 22 j 09:55	0° $\mathbb{Y}$	
conjunction	-3042 Jan 17 j 08:53	4° $\mathbb{B}$ 13'29	-1°00'-8	morning rise	-3036 May 02 j 05:41	1° $\mathbb{Y}$ 17'23	
minimum elong	-3042 Jan 17 j 08:50	4° $\mathbb{B}$ 13'29	1°00'16	retrograde	-3036 Aug 16 j 16:58	9° $\mathbb{Y}$ 50'09	
max. Earth dist.	-3042 Jan 17 j 00:21	4° $\mathbb{B}$ 10'48	10.41592 AU	opposition	-3036 Oct 22 j 08:45	6° $\mathbb{Y}$ 19'00	-2°-38'-33
morning rise	-3042 Feb 03 j 16:34	6° $\mathbb{B}$ 23'37		min. Earth dist.	-3036 Oct 21 j 22:49	6° $\mathbb{Y}$ 21'05	7.88405 AU
retrograde	-3042 May 21 j 08:35	14° $\mathbb{B}$ 23'32		direct	-3036 Dec 27 j 12:59	2° $\mathbb{Y}$ 49'02	
opposition	-3042 Jul 30 j 00:32	10° $\mathbb{B}$ 56'14	-1°-32'-43	evening set	-3035 Apr 11 j 16:40	11° $\mathbb{Y}$ 14'15	
min. Earth dist.	-3042 Jul 30 j 06:02	10° $\mathbb{B}$ 55'09	8.34149 AU				
direct	-3042 Oct 05 j 06:41	7° $\mathbb{B}$ 33'53		conjunction	-3035 Apr 29 j 20:17	13° $\mathbb{Y}$ 37'21	-1°-57'-19
evening set	-3041 Jan 13 j 16:17	15° $\mathbb{B}$ 14'11		minimum elong	-3035 Apr 29 j 20:21	13° $\mathbb{Y}$ 37'23	1°57'18
				max. Earth dist.	-3035 Apr 30 j 10:35	13° $\mathbb{Y}$ 42'05	9.89935 AU
conjunction	-3041 Jan 30 j 22:47	17° $\mathbb{B}$ 25'52	-1°-27'-58	morning rise	-3035 May 18 j 00:13	16° $\mathbb{Y}$ 00'34	
minimum elong	-3041 Jan 30 j 22:44	17° $\mathbb{B}$ 25'51	1°28'05	retrograde	-3035 Aug 31 j 11:36	24° $\mathbb{Y}$ 26'17	
max. Earth dist.	-3041 Jan 30 j 16:20	17° $\mathbb{B}$ 23'48	10.26996 AU	opposition	-3035 Nov 05 j 21:31	20° $\mathbb{Y}$ 56'02	-2°-13'-6
morning rise	-3041 Feb 17 j 10:26	19° $\mathbb{B}$ 39'14		min. Earth dist.	-3035 Nov 05 j 10:22	20° $\mathbb{Y}$ 58'22	7.92653 AU
retrograde	-3041 Jun 04 j 19:00	27° $\mathbb{B}$ 51'00		direct	-3034 Jan 11 j 10:52	17° $\mathbb{Y}$ 25'36	
opposition	-3041 Aug 12 j 21:08	24° $\mathbb{B}$ 22'12	-2°-5'-20	evening set	-3034 Apr 27 j 05:18	25° $\mathbb{Y}$ 49'00	
min. Earth dist.	-3041 Aug 13 j 00:14	24° $\mathbb{B}$ 21'35	8.20128 AU				
direct	-3041 Oct 18 j 13:49	20° $\mathbb{B}$ 58'24		conjunction	-3034 May 15 j 10:04	28° $\mathbb{Y}$ 11'22	-1°-33'-37
evening set	-3040 Jan 27 j 15:51	28° $\mathbb{B}$ 49'50		minimum elong	-3034 May 15 j 10:08	28° $\mathbb{Y}$ 11'23	1°33'35



## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 31

Attention, astronomical year style is used: The year -3034 in astronomical counting style is the year 3035 BCE in historical counting style.

max. Earth dist.	-3034 May 16 j 01:32	28° $\Upsilon$ 16'26	9.96012 AU	evening set	-3028 Jul 19 j 06:36	15° $\Theta$ 56'29	
	-3034 May 29 j 06:25	0° $\mathcal{B}$					
morning rise	-3034 Jun 02 j 13:46	0° $\mathcal{B}$ 33'21		conjunction	-3028 Aug 05 j 14:47	18° $\Theta$ 01'17	1°29'19
retrograde	-3034 Sep 14 j 22:02	8° $\mathcal{B}$ 49'07		minimum elong	-3028 Aug 05 j 14:44	18° $\Theta$ 01'16	1°29'25
opposition	-3034 Nov 20 j 05:37	5° $\mathcal{B}$ 20'10	-1°-39'-35	max. Earth dist.	-3028 Aug 05 j 21:15	18° $\Theta$ 03'15	10.74452 AU
min. Earth dist.	-3034 Nov 19 j 18:08	5° $\mathcal{B}$ 22'33	8.00307 AU	morning rise	-3028 Aug 22 j 17:36	20° $\Theta$ 04'31	
direct	-3033 Jan 26 j 08:18	1° $\mathcal{B}$ 49'41		retrograde	-3028 Nov 29 j 19:38	27° $\Theta$ 12'32	
evening set	-3033 May 12 j 11:42	10° $\mathcal{B}$ 08'22		opposition	-3027 Feb 05 j 21:58	23° $\Theta$ 53'56	2°03'10
				min. Earth dist.	-3027 Feb 05 j 18:18	23° $\Theta$ 54'38	8.81277 AU
conjunction	-3033 May 30 j 16:07	12° $\mathcal{B}$ 29'02	-1°-4'-28	direct	-3027 Apr 17 j 16:52	20° $\Theta$ 29'27	
minimum elong	-3033 May 30 j 16:11	12° $\mathcal{B}$ 29'03	1°04'25	evening set	-3027 Jul 31 j 19:03	27° $\Theta$ 55'19	
max. Earth dist.	-3033 May 31 j 07:36	12° $\mathcal{B}$ 34'03	10.05256 AU				
morning rise	-3033 Jun 17 j 18:12	14° $\mathcal{B}$ 48'55		conjunction	-3027 Aug 17 j 21:41	29° $\Theta$ 56'58	1°50'42
	-3033 Jun 19 j 05:13	15° $\mathcal{B}$		minimum elong	-3027 Aug 17 j 21:38	29° $\Theta$ 56'57	1°50'47
retrograde	-3033 Sep 28 j 21:18	22° $\mathcal{B}$ 52'54		max. Earth dist.	-3027 Aug 18 j 00:30	29° $\Theta$ 57'48	10.87722 AU
opposition	-3033 Dec 04 j 07:17	19° $\mathcal{B}$ 25'34	-1°00'-45		-3027 Aug 18 j 07:51	0° $\mathcal{Q}$	
min. Earth dist.	-3033 Dec 03 j 20:12	19° $\mathcal{B}$ 27'51	8.10844 AU	morning rise	-3027 Sep 03 j 19:25	1° $\mathcal{Q}$ 57'10	
direct	-3032 Feb 10 j 01:28	15° $\mathcal{B}$ 55'24		retrograde	-3027 Dec 11 j 13:30	8° $\mathcal{Q}$ 57'54	
evening set	-3032 May 26 j 09:28	24° $\mathcal{B}$ 07'07		opposition	-3026 Feb 18 j 04:44	5° $\mathcal{Q}$ 40'32	2°26'02
				min. Earth dist.	-3026 Feb 18 j 03:30	5° $\mathcal{Q}$ 40'46	8.93857 AU
conjunction	-3032 Jun 13 j 12:00	26° $\mathcal{B}$ 25'19	0°-32'-8	direct	-3026 Apr 30 j 09:40	2° $\mathcal{Q}$ 17'26	
minimum elong	-3032 Jun 13 j 12:01	26° $\mathcal{B}$ 25'19	0°32'04	evening set	-3026 Aug 12 j 21:28	9° $\mathcal{Q}$ 35'12	
max. Earth dist.	-3032 Jun 14 j 02:13	26° $\mathcal{B}$ 29'52	10.17045 AU				
morning rise	-3032 Jul 01 j 11:09	28° $\mathcal{B}$ 42'22		conjunction	-3026 Aug 29 j 19:06	11° $\mathcal{Q}$ 34'07	2°06'59
	-3032 Jul 11 j 23:05	0° $\mathcal{I}$		minimum elong	-3026 Aug 29 j 19:04	11° $\mathcal{Q}$ 34'06	2°07'03
retrograde	-3032 Oct 11 j 10:21	6° $\mathcal{I}$ 33'47		max. Earth dist.	-3026 Aug 29 j 18:41	11° $\mathcal{Q}$ 33'59	10.99357 AU
opposition	-3032 Dec 17 j 01:24	3° $\mathcal{I}$ 08'15	0°-19'-31	morning rise	-3026 Sep 15 j 12:22	13° $\mathcal{Q}$ 31'44	
min. Earth dist.	-3032 Dec 16 j 14:59	3° $\mathcal{I}$ 10'22	8.23584 AU		-3026 Sep 28 j 12:58	15° $\mathcal{Q}$	
	-3031 Feb 03 j 10:41	30° $\mathcal{R}$ $\mathcal{B}$		retrograde	-3026 Dec 23 j 04:44	20° $\mathcal{Q}$ 26'52	
direct	-3031 Feb 23 j 12:03	29° $\mathcal{B}$ 38'46		opposition	-3025 Mar 02 j 06:34	17° $\mathcal{Q}$ 10'25	2°42'25
	-3031 Mar 15 j 13:03	0° $\mathcal{I}$		min. Earth dist.	-3025 Mar 02 j 07:09	17° $\mathcal{Q}$ 10'19	9.04552 AU
evening set	-3031 Jun 09 j 20:38	7° $\mathcal{I}$ 42'00			-3025 Apr 03 j 01:26	15° $\mathcal{R}$ $\mathcal{Q}$	
asc. node	-3031 Jun 14 j 01:25	8° $\mathcal{I}$ 13'16		direct	-3025 May 12 j 19:22	13° $\mathcal{Q}$ 48'38	
					-3025 Jun 20 j 20:31	15° $\mathcal{Q}$	
conjunction	-3031 Jun 27 j 19:50	9° $\mathcal{I}$ 57'08	0°01'15	evening set	-3025 Aug 24 j 15:04	20° $\mathcal{Q}$ 59'15	
minimum elong	-3031 Jun 27 j 19:50	9° $\mathcal{I}$ 57'08	0°01'20				
behind sun begin	-3031 Jun 27 j 12:33	9° $\mathcal{I}$ 54'52		conjunction	-3025 Sep 10 j 08:34	22° $\mathcal{Q}$ 55'57	2°17'54
behind sun end	-3031 Jun 28 j 03:08	9° $\mathcal{I}$ 59'24		minimum elong	-3025 Sep 10 j 08:32	22° $\mathcal{Q}$ 55'56	2°17'57
max. Earth dist.	-3031 Jun 28 j 08:14	10° $\mathcal{I}$ 01'02	10.30633 AU	max. Earth dist.	-3025 Sep 10 j 05:59	22° $\mathcal{Q}$ 55'11	11.08886 AU
morning rise	-3031 Jul 15 j 14:50	12° $\mathcal{I}$ 10'53		morning rise	-3025 Sep 26 j 22:04	24° $\mathcal{Q}$ 51'31	
retrograde	-3031 Oct 24 j 13:51	19° $\mathcal{I}$ 49'51			-3025 Nov 18 j 17:23	0° $\mathcal{P}$	
opposition	-3031 Dec 30 j 11:43	16° $\mathcal{I}$ 26'11	0°21'26	retrograde	-3024 Jan 03 j 16:19	1° $\mathcal{P}$ 42'44	
min. Earth dist.	-3031 Dec 30 j 01:59	16° $\mathcal{I}$ 28'08	8.37758 AU		-3024 Feb 20 j 06:56	30° $\mathcal{R}$ $\mathcal{Q}$	
direct	-3030 Mar 09 j 14:35	12° $\mathcal{I}$ 57'42		opposition	-3024 Mar 13 j 04:39	28° $\mathcal{Q}$ 26'53	2°52'11
evening set	-3030 Jun 23 j 19:53	20° $\mathcal{I}$ 51'33		min. Earth dist.	-3024 Mar 13 j 07:30	28° $\mathcal{Q}$ 26'22	9.12913 AU
				direct	-3024 May 23 j 20:52	25° $\mathcal{Q}$ 06'17	
conjunction	-3030 Jul 11 j 14:40	23° $\mathcal{I}$ 03'17	0°33'34		-3024 Aug 15 j 03:30	0° $\mathcal{P}$	
minimum elong	-3030 Jul 11 j 14:39	23° $\mathcal{I}$ 03'17	0°33'40	evening set	-3024 Sep 04 j 01:42	2° $\mathcal{P}$ 10'57	
max. Earth dist.	-3030 Jul 12 j 01:27	23° $\mathcal{I}$ 06'38	10.45233 AU				
morning rise	-3030 Jul 29 j 04:34	25° $\mathcal{I}$ 13'29		conjunction	-3024 Sep 20 j 15:48	4° $\mathcal{P}$ 05'58	2°23'21
	-3030 Sep 11 j 05:42	0° $\mathcal{\Theta}$		minimum elong	-3024 Sep 20 j 15:48	4° $\mathcal{P}$ 05'58	2°23'23
retrograde	-3030 Nov 06 j 07:36	2° $\mathcal{\Theta}$ 40'50		max. Earth dist.	-3024 Sep 20 j 10:39	4° $\mathcal{P}$ 04'28	11.15908 AU
	-3029 Jan 03 j 20:50	30° $\mathcal{R}$ $\mathcal{I}$		morning rise	-3024 Oct 07 j 02:28	6° $\mathcal{P}$ 00'05	
opposition	-3029 Jan 12 j 14:17	29° $\mathcal{I}$ 18'59	0°59'55	retrograde	-3023 Jan 14 j 02:37	12° $\mathcal{P}$ 49'08	
min. Earth dist.	-3029 Jan 12 j 05:39	29° $\mathcal{I}$ 20'41	8.52585 AU	opposition	-3023 Mar 25 j 00:16	9° $\mathcal{P}$ 33'37	2°55'23
direct	-3029 Mar 23 j 08:52	25° $\mathcal{I}$ 51'45		min. Earth dist.	-3023 Mar 25 j 06:13	9° $\mathcal{P}$ 32'31	9.18600 AU
	-3029 Jun 05 j 03:15	0° $\mathcal{\Theta}$		direct	-3023 Jun 04 j 17:45	6° $\mathcal{P}$ 13'59	
evening set	-3029 Jul 07 j 07:06	3° $\mathcal{\Theta}$ 35'57		evening set	-3023 Sep 15 j 07:02	13° $\mathcal{P}$ 14'06	
conjunction	-3029 Jul 24 j 20:47	5° $\mathcal{\Theta}$ 44'10	1°03'20	conjunction	-3023 Oct 01 j 18:32	15° $\mathcal{P}$ 08'02	2°23'22
minimum elong	-3029 Jul 24 j 20:44	5° $\mathcal{\Theta}$ 44'09	1°03'26	minimum elong	-3023 Oct 01 j 18:33	15° $\mathcal{P}$ 08'02	2°23'24
max. Earth dist.	-3029 Jul 25 j 05:47	5° $\mathcal{\Theta}$ 46'55	10.60078 AU	max. Earth dist.	-3023 Oct 01 j 09:57	15° $\mathcal{P}$ 05'32	11.20164 AU
morning rise	-3029 Aug 11 j 05:08	7° $\mathcal{\Theta}$ 50'47		morning rise	-3023 Oct 18 j 03:38	17° $\mathcal{P}$ 01'19	
retrograde	-3029 Nov 18 j 17:22	15° $\mathcal{\Theta}$ 07'44		retrograde	-3022 Jan 25 j 10:58	23° $\mathcal{P}$ 49'59	
opposition	-3028 Jan 25 j 09:23	11° $\mathcal{\Theta}$ 47'36	1°34'13	opposition	-3022 Apr 05 j 18:44	20° $\mathcal{P}$ 34'25	2°52'07
min. Earth dist.	-3028 Jan 25 j 02:50	11° $\mathcal{\Theta}$ 48'53	8.67320 AU	min. Earth dist.	-3022 Apr 06 j 03:20	20° $\mathcal{P}$ 32'51	9.21431 AU
direct	-3028 Apr 04 j 17:25	8° $\mathcal{\Theta}$ 21'43		direct	-3022 Jun 16 j 10:03	17° $\mathcal{P}$ 15'36	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 32

Attention, astronomical year style is used: The year -3022 in astronomical counting style is the year 3023 BCE in historical counting style.

evening set	-3022 Sep 26 j 08:34	24° $\mathbb{M}$ 12'31		min. Earth dist.	-3016 Jun 15 j 11:40	27° $\mathbb{M}$ 57'44	8.82036 AU
				direct	-3016 Aug 23 j 10:17	24° $\mathbb{M}$ 40'37	
conjunction	-3022 Oct 12 j 18:37	26° $\mathbb{M}$ 05'58	2°18'07		-3016 Nov 15 j 01:46	0° $\mathbb{Z}$	
minimum elong	-3022 Oct 12 j 18:39	26° $\mathbb{M}$ 05'58	2°18'08	evening set	-3016 Nov 30 j 21:11	1° $\mathbb{Z}$ 49'32	
max. Earth dist.	-3022 Oct 12 j 07:36	26° $\mathbb{M}$ 02'46	11.21557 AU				
morning rise	-3022 Oct 29 j 03:11	27° $\mathbb{M}$ 59'01		conjunction	-3016 Dec 17 j 15:40	3° $\mathbb{Z}$ 51'05	0°14'25
	-3022 Nov 16 j 12:48	0° $\mathbb{A}$		minimum elong	-3016 Dec 17 j 15:41	3° $\mathbb{Z}$ 51'05	0°14'20
retrograde	-3021 Feb 05 j 21:41	4° $\mathbb{A}$ 49'02		behind sun begin	-3016 Dec 17 j 12:17	3° $\mathbb{Z}$ 50'04	
opposition	-3021 Apr 17 j 13:01	1° $\mathbb{A}$ 33'03	2°42'37	behind sun end	-3016 Dec 17 j 19:05	3° $\mathbb{Z}$ 52'06	
min. Earth dist.	-3021 Apr 17 j 22:52	1° $\mathbb{A}$ 31'16	9.21365 AU	max. Earth dist.	-3016 Dec 17 j 03:02	3° $\mathbb{Z}$ 47'15	10.75431 AU
	-3021 May 09 j 16:59	30° $\mathbb{R}$		morning rise	-3015 Jan 03 j 13:39	5° $\mathbb{Z}$ 53'46	
direct	-3021 Jun 28 j 01:41	28° $\mathbb{M}$ 14'48		retrograde	-3015 Apr 18 j 02:34	13° $\mathbb{Z}$ 24'51	
	-3021 Aug 14 j 16:58	0° $\mathbb{A}$		desc. node	-3015 Jun 15 j 03:59	10° $\mathbb{Z}$ 57'54	
evening set	-3021 Oct 07 j 08:22	5° $\mathbb{A}$ 09'56		opposition	-3015 Jun 27 j 18:33	10° $\mathbb{Z}$ 01'03	0°-1'-14
				min. Earth dist.	-3015 Jun 28 j 04:22	9° $\mathbb{Z}$ 59'11	8.68377 AU
conjunction	-3021 Oct 23 j 18:04	7° $\mathbb{A}$ 03'29	2°07'49	direct	-3015 Sep 04 j 12:35	6° $\mathbb{Z}$ 40'59	
minimum elong	-3021 Oct 23 j 18:06	7° $\mathbb{A}$ 03'29	2°07'48	evening set	-3015 Dec 13 j 01:39	13° $\mathbb{Z}$ 57'29	
max. Earth dist.	-3021 Oct 23 j 06:14	7° $\mathbb{A}$ 00'02	11.20086 AU				
morning rise	-3021 Nov 09 j 02:52	8° $\mathbb{A}$ 56'52		conjunction	-3015 Dec 29 j 23:17	16° $\mathbb{Z}$ 01'47	0°-16'-2
retrograde	-3020 Feb 17 j 12:49	15° $\mathbb{A}$ 49'48		minimum elong	-3015 Dec 29 j 23:16	16° $\mathbb{Z}$ 01'47	0°16'09
opposition	-3020 Apr 28 j 08:21	12° $\mathbb{A}$ 33'07	2°27'11	behind sun begin	-3015 Dec 29 j 22:57	16° $\mathbb{Z}$ 01'41	
min. Earth dist.	-3020 Apr 28 j 19:05	12° $\mathbb{A}$ 31'10	9.18448 AU	behind sun end	-3015 Dec 29 j 23:35	16° $\mathbb{Z}$ 01'52	
direct	-3020 Jul 08 j 14:50	9° $\mathbb{A}$ 15'12		max. Earth dist.	-3015 Dec 29 j 11:16	15° $\mathbb{Z}$ 58'05	10.61292 AU
evening set	-3020 Oct 17 j 08:14	16° $\mathbb{A}$ 09'56		morning rise	-3014 Jan 16 j 01:18	18° $\mathbb{Z}$ 07'29	
				retrograde	-3014 May 01 j 11:41	25° $\mathbb{Z}$ 50'05	
conjunction	-3020 Nov 02 j 18:18	18° $\mathbb{A}$ 04'08	1°52'45	opposition	-3014 Jul 10 j 19:52	22° $\mathbb{Z}$ 24'35	0°-39'-7
minimum elong	-3020 Nov 02 j 18:21	18° $\mathbb{A}$ 04'09	1°52'43	min. Earth dist.	-3014 Jul 11 j 04:37	22° $\mathbb{Z}$ 22'54	8.53877 AU
max. Earth dist.	-3020 Nov 02 j 05:16	18° $\mathbb{A}$ 00'20	11.15838 AU	direct	-3014 Sep 16 j 22:17	19° $\mathbb{Z}$ 03'26	
morning rise	-3020 Nov 19 j 04:23	19° $\mathbb{A}$ 58'26		evening set	-3014 Dec 25 j 17:16	26° $\mathbb{Z}$ 29'02	
retrograde	-3019 Feb 28 j 05:53	26° $\mathbb{A}$ 55'54					
opposition	-3019 May 10 j 06:15	23° $\mathbb{A}$ 38'13	2°06'12	conjunction	-3013 Jan 11 j 18:23	28° $\mathbb{Z}$ 36'20	0°-46'-33
min. Earth dist.	-3019 May 10 j 18:10	23° $\mathbb{A}$ 36'02	9.12813 AU	minimum elong	-3013 Jan 11 j 18:21	28° $\mathbb{Z}$ 36'19	0°46'40
direct	-3019 Jul 20 j 02:52	20° $\mathbb{A}$ 20'20		max. Earth dist.	-3013 Jan 11 j 08:17	28° $\mathbb{Z}$ 33'10	10.46596 AU
evening set	-3019 Oct 28 j 09:52	27° $\mathbb{A}$ 16'13			-3013 Jan 22 j 22:08	0° $\mathbb{Z}$	
				morning rise	-3013 Jan 29 j 00:28	0° $\mathbb{Z}$ 45'11	
conjunction	-3019 Nov 13 j 21:00	29° $\mathbb{A}$ 11'33	1°33'19	retrograde	-3013 May 15 j 06:28	8° $\mathbb{Z}$ 39'57	
minimum elong	-3019 Nov 13 j 21:03	29° $\mathbb{A}$ 11'34	1°33'16	opposition	-3013 Jul 24 j 05:07	5° $\mathbb{Z}$ 12'48	-1°-16'-26
max. Earth dist.	-3019 Nov 13 j 06:24	29° $\mathbb{A}$ 07'16	11.08977 AU	min. Earth dist.	-3013 Jul 24 j 12:02	5° $\mathbb{Z}$ 11'26	8.39185 AU
	-3019 Nov 20 j 17:57	0° $\mathbb{M}$		direct	-3013 Sep 29 j 18:10	1° $\mathbb{Z}$ 50'27	
morning rise	-3019 Nov 30 j 09:20	1° $\mathbb{M}$ 07'17		evening set	-3012 Jan 07 j 21:17	9° $\mathbb{Z}$ 26'15	
retrograde	-3018 Mar 12 j 05:23	8° $\mathbb{M}$ 10'55					
opposition	-3018 May 22 j 07:35	4° $\mathbb{M}$ 51'57	1°40'08	conjunction	-3012 Jan 25 j 02:07	11° $\mathbb{Z}$ 36'39	-1°-15'-38
min. Earth dist.	-3018 May 22 j 20:30	4° $\mathbb{M}$ 49'35	9.04668 AU	minimum elong	-3012 Jan 25 j 02:04	11° $\mathbb{Z}$ 36'39	1°15'45
direct	-3018 Jul 31 j 18:20	1° $\mathbb{M}$ 33'50		max. Earth dist.	-3012 Jan 24 j 19:18	11° $\mathbb{Z}$ 34'29	10.32034 AU
evening set	-3018 Nov 08 j 15:18	8° $\mathbb{M}$ 32'25		morning rise	-3012 Feb 11 j 12:03	13° $\mathbb{Z}$ 48'43	
				retrograde	-3012 May 28 j 12:21	21° $\mathbb{Z}$ 55'37	
conjunction	-3018 Nov 25 j 04:22	10° $\mathbb{M}$ 29'25	1°09'59	opposition	-3012 Aug 05 j 22:23	18° $\mathbb{Z}$ 26'57	-1°-51'-4
minimum elong	-3018 Nov 25 j 04:24	10° $\mathbb{M}$ 29'25	1°09'56	min. Earth dist.	-3012 Aug 06 j 02:30	18° $\mathbb{Z}$ 26'08	8.25036 AU
max. Earth dist.	-3018 Nov 24 j 13:51	10° $\mathbb{M}$ 25'06	10.99734 AU	direct	-3012 Oct 11 j 21:52	15° $\mathbb{Z}$ 03'20	
morning rise	-3018 Dec 11 j 19:30	12° $\mathbb{M}$ 27'05		evening set	-3011 Jan 20 j 14:44	22° $\mathbb{Z}$ 50'03	
	-3017 Jan 03 j 18:57	15° $\mathbb{M}$					
retrograde	-3017 Mar 24 j 10:43	19° $\mathbb{M}$ 38'23		conjunction	-3011 Feb 06 j 23:23	25° $\mathbb{Z}$ 03'32	-1°-41'-30
opposition	-3017 Jun 03 j 13:10	16° $\mathbb{M}$ 17'56	1°09'37	minimum elong	-3011 Feb 06 j 23:20	25° $\mathbb{Z}$ 03'31	1°41'36
min. Earth dist.	-3017 Jun 04 j 01:39	16° $\mathbb{M}$ 15'37	8.94288 AU	max. Earth dist.	-3011 Feb 06 j 20:24	25° $\mathbb{Z}$ 02'34	10.18386 AU
	-3017 Jun 21 j 11:53	15° $\mathbb{R}$		morning rise	-3011 Feb 24 j 13:05	27° $\mathbb{Z}$ 18'42	
direct	-3017 Aug 12 j 11:33	12° $\mathbb{M}$ 59'22			-3011 Mar 18 j 16:22	0° $\approx$	
	-3017 Oct 01 j 06:32	15° $\mathbb{M}$		retrograde	-3011 Jun 12 j 03:23	5° $\approx$ 36'48	
evening set	-3017 Nov 20 j 02:27	20° $\mathbb{M}$ 02'20		opposition	-3011 Aug 19 j 23:12	2° $\approx$ 06'52	-2°-20'-40
				min. Earth dist.	-3011 Aug 19 j 23:54	2° $\approx$ 06'44	8.12222 AU
conjunction	-3017 Dec 06 j 18:05	22° $\mathbb{M}$ 01'24	0°43'25		-3011 Sep 17 j 03:34	30° $\mathbb{R}$	
minimum elong	-3017 Dec 06 j 18:06	22° $\mathbb{M}$ 01'25	0°43'21	direct	-3011 Oct 25 j 10:47	28° $\mathbb{Z}$ 41'57	
max. Earth dist.	-3017 Dec 06 j 04:37	21° $\mathbb{M}$ 57'22	10.88415 AU		-3011 Dec 01 j 23:17	0° $\approx$	
morning rise	-3017 Dec 23 j 12:23	24° $\mathbb{M}$ 01'23		evening set	-3010 Feb 03 j 21:31	6° $\approx$ 39'38	
	-3016 Feb 23 j 16:23	0° $\mathbb{Z}$					
retrograde	-3016 Apr 05 j 01:52	1° $\mathbb{Z}$ 21'56		conjunction	-3010 Feb 21 j 10:01	8° $\approx$ 56'02	-2°-2'-15
	-3016 May 17 j 10:10	30° $\mathbb{R}$		minimum elong	-3010 Feb 21 j 09:58	8° $\approx$ 56'01	2°02'21
opposition	-3016 Jun 15 j 00:30	27° $\mathbb{M}$ 59'50	0°35'27	max. Earth dist.	-3010 Feb 21 j 10:39	8° $\approx$ 56'14	10.06459 AU

Attention, astronomical year style is used: The year -3010 in astronomical counting style is the year 3011 BCE in historical counting style.

morning rise	-3010 Mar 11 j 03:20	11° $\approx$ 14'04		evening set	-3004 May 05 j 00:50	3° $\approx$ 57'34	
	-3010 Apr 11 j 11:30	15° $\approx$					
retrograde	-3010 Jun 27 j 01:33	19° $\approx$ 41'27		conjunction	-3004 May 23 j 05:34	6° $\approx$ 18'57	-1°-18'-3
opposition	-3010 Sep 03 j 06:48	16° $\approx$ 10'35	-2°-42'-49	minimum elong	-3004 May 23 j 05:38	6° $\approx$ 18'58	1°18'00
min. Earth dist.	-3010 Sep 03 j 04:23	16° $\approx$ 11'05	8.01520 AU	max. Earth dist.	-3004 May 23 j 20:47	6° $\approx$ 23'54	10.02078 AU
	-3010 Sep 17 j 22:17	15° $\approx$		morning rise	-3004 Jun 10 j 08:37	8° $\approx$ 39'44	
direct	-3010 Nov 08 j 09:28	12° $\approx$ 44'23			-3004 Aug 08 j 05:16	15° $\approx$	
	-3010 Dec 28 j 05:21	15° $\approx$		retrograde	-3004 Sep 22 j 00:17	16° $\approx$ 48'55	
evening set	-3009 Feb 18 j 16:32	20° $\approx$ 52'15			-3004 Nov 06 j 15:24	15° $\approx$	
				opposition	-3004 Nov 27 j 09:44	13° $\approx$ 21'23	-1°-18'-35
conjunction	-3009 Mar 08 j 08:50	23° $\approx$ 11'14	-2°-16'-8	min. Earth dist.	-3004 Nov 26 j 22:04	13° $\approx$ 23'48	8.07071 AU
minimum elong	-3009 Mar 08 j 08:48	23° $\approx$ 11'14	2°16'12	direct	-3003 Feb 02 j 20:45	9° $\approx$ 51'38	
max. Earth dist.	-3009 Mar 08 j 13:03	23° $\approx$ 12'38	9.97023 AU		-3003 Apr 24 j 06:16	15° $\approx$	
morning rise	-3009 Mar 26 j 05:30	25° $\approx$ 31'40		evening set	-3003 May 20 j 03:01	18° $\approx$ 06'26	
	-3009 May 02 j 17:57	0° $\approx$					
retrograde	-3009 Jul 12 j 04:00	4° $\approx$ 05'25		conjunction	-3003 Jun 07 j 06:41	20° $\approx$ 25'44	0°-46'-52
opposition	-3009 Sep 17 j 19:32	0° $\approx$ 34'04	-2°-55'-21	minimum elong	-3003 Jun 07 j 06:43	20° $\approx$ 25'45	0°46'48
min. Earth dist.	-3009 Sep 17 j 14:25	0° $\approx$ 35'07	7.93645 AU	max. Earth dist.	-3003 Jun 07 j 21:17	20° $\approx$ 30'26	10.12631 AU
	-3009 Sep 24 j 16:38	30° $\approx$		morning rise	-3003 Jun 25 j 07:15	22° $\approx$ 44'02	
direct	-3009 Nov 22 j 16:39	27° $\approx$ 06'41			-3003 Sep 08 j 15:16	0° $\approx$	
	-3008 Jan 18 j 09:33	0° $\approx$		retrograde	-3003 Oct 05 j 19:48	0° $\approx$ 41'06	
evening set	-3008 Mar 04 j 21:38	5° $\approx$ 23'00			-3003 Nov 02 j 04:42	30° $\approx$	
				opposition	-3003 Dec 11 j 07:25	27° $\approx$ 15'16	0°-38'-5
conjunction	-3008 Mar 22 j 17:40	7° $\approx$ 44'04	-2°-21'-41	min. Earth dist.	-3003 Dec 10 j 20:29	27° $\approx$ 17'30	8.18605 AU
minimum elong	-3008 Mar 22 j 17:40	7° $\approx$ 44'04	2°21'44	direct	-3002 Feb 17 j 09:20	23° $\approx$ 46'01	
max. Earth dist.	-3008 Mar 23 j 01:21	7° $\approx$ 46'37	9.90751 AU		-3002 May 19 j 05:58	0° $\approx$	
morning rise	-3008 Apr 09 j 17:22	10° $\approx$ 06'18		evening set	-3002 Jun 03 j 19:31	1° $\approx$ 53'12	
retrograde	-3008 Jul 26 j 08:08	18° $\approx$ 42'40					
opposition	-3008 Oct 01 j 11:24	15° $\approx$ 11'16	-2°-56'-47	conjunction	-3002 Jun 21 j 20:31	4° $\approx$ 09'46	0°-13'-43
min. Earth dist.	-3008 Oct 01 j 04:05	15° $\approx$ 12'47	7.89166 AU	minimum elong	-3002 Jun 21 j 20:32	4° $\approx$ 09'46	0°13'38
direct	-3008 Dec 06 j 07:33	11° $\approx$ 42'51		behind sun begin	-3002 Jun 21 j 16:42	4° $\approx$ 08'34	
evening set	-3007 Mar 20 j 09:41	20° $\approx$ 05'03		behind sun end	-3002 Jun 22 j 00:21	4° $\approx$ 10'58	
				max. Earth dist.	-3002 Jun 22 j 09:53	4° $\approx$ 14'00	10.25111 AU
conjunction	-3007 Apr 07 j 09:13	22° $\approx$ 27'31	-2°-18'-8	morning rise	-3002 Jul 09 j 17:21	6° $\approx$ 25'00	
minimum elong	-3007 Apr 07 j 09:15	22° $\approx$ 27'32	2°18'10	retrograde	-3002 Oct 19 j 05:21	14° $\approx$ 09'45	
max. Earth dist.	-3007 Apr 07 j 19:57	22° $\approx$ 31'06	9.88104 AU	asc. node	-3002 Nov 24 j 11:02	13° $\approx$ 00'12	
morning rise	-3007 Apr 25 j 11:23	24° $\approx$ 50'47		opposition	-3002 Dec 24 j 21:47	10° $\approx$ 45'41	0°03'18
	-3007 Jun 08 j 06:46	0° $\approx$		min. Earth dist.	-3002 Dec 24 j 12:25	10° $\approx$ 47'34	8.31785 AU
retrograde	-3007 Aug 10 j 10:18	3° $\approx$ 25'34		direct	-3001 Mar 03 j 15:16	7° $\approx$ 17'11	
	-3007 Oct 15 j 02:05	30° $\approx$		evening set	-3001 Jun 18 j 00:38	15° $\approx$ 15'33	
opposition	-3007 Oct 16 j 03:58	29° $\approx$ 54'35	-2°-46'-37				
min. Earth dist.	-3007 Oct 15 j 18:53	29° $\approx$ 56'29	7.88398 AU	conjunction	-3001 Jul 05 j 21:37	17° $\approx$ 28'54	0°19'22
direct	-3007 Dec 21 j 04:08	26° $\approx$ 25'23		minimum elong	-3001 Jul 05 j 21:36	17° $\approx$ 28'54	0°19'28
	-3006 Feb 23 j 04:26	0° $\approx$		max. Earth dist.	-3001 Jul 06 j 08:42	17° $\approx$ 32'21	10.38873 AU
evening set	-3006 Apr 05 j 00:59	4° $\approx$ 50'19		morning rise	-3001 Jul 23 j 13:50	19° $\approx$ 40'45	
				retrograde	-3001 Nov 01 j 03:25	27° $\approx$ 13'36	
conjunction	-3006 Apr 23 j 03:21	7° $\approx$ 13'21	-2°-5'-35	opposition	-3000 Jan 07 j 04:19	23° $\approx$ 15'16	0°43'11
minimum elong	-3006 Apr 23 j 03:24	7° $\approx$ 13'22	2°05'35	min. Earth dist.	-3000 Jan 06 j 20:48	23° $\approx$ 15'24	8.45927 AU
max. Earth dist.	-3006 Apr 23 j 16:33	7° $\approx$ 17'43	9.89254 AU	direct	-3000 Mar 16 j 14:23	20° $\approx$ 12'34	
morning rise	-3006 May 11 j 07:02	9° $\approx$ 36'43		evening set	-3000 Jun 30 j 17:59	28° $\approx$ 12'42	
retrograde	-3006 Aug 25 j 07:12	18° $\approx$ 05'54			-3000 Jul 15 j 08:46	0° $\approx$	
opposition	-3006 Oct 30 j 18:35	14° $\approx$ 35'43	-2°-25'-32				
min. Earth dist.	-3006 Oct 30 j 07:58	14° $\approx$ 37'56	7.91366 AU	conjunction	-3000 Jul 18 j 10:01	0° $\approx$ 22'35	0°50'29
direct	-3005 Jan 05 j 03:29	11° $\approx$ 06'01		minimum elong	-3000 Jul 18 j 09:59	0° $\approx$ 22'35	0°50'35
evening set	-3005 Apr 20 j 15:17	19° $\approx$ 30'21		max. Earth dist.	-3000 Jul 18 j 18:03	0° $\approx$ 25'04	10.53204 AU
				morning rise	-3000 Aug 04 j 21:01	2° $\approx$ 30'55	
conjunction	-3005 May 08 j 19:30	21° $\approx$ 53'00	-1°-45'00	retrograde	-3000 Nov 12 j 15:46	9° $\approx$ 52'51	
minimum elong	-3005 May 08 j 19:34	21° $\approx$ 53'01	1°44'58	opposition	-2999 Jan 19 j 03:08	6° $\approx$ 32'07	1°19'35
max. Earth dist.	-3005 May 09 j 10:19	21° $\approx$ 57'52	9.94067 AU	min. Earth dist.	-2999 Jan 18 j 21:20	6° $\approx$ 33'15	8.60304 AU
morning rise	-3005 May 26 j 23:32	24° $\approx$ 15'32		direct	-2999 Mar 30 j 05:05	3° $\approx$ 05'39	
	-3005 Jul 16 j 17:32	0° $\approx$		evening set	-2999 Jul 13 j 23:17	10° $\approx$ 45'11	
retrograde	-3005 Sep 08 j 20:21	2° $\approx$ 35'47					
	-3005 Nov 03 j 10:27	30° $\approx$		conjunction	-2999 Jul 31 j 09:55	12° $\approx$ 51'37	1°18'20
opposition	-3005 Nov 14 j 05:06	29° $\approx$ 06'47	-1°-55'-21	minimum elong	-2999 Jul 31 j 09:52	12° $\approx$ 51'36	1°18'25
min. Earth dist.	-3005 Nov 13 j 17:30	29° $\approx$ 09'11	7.97782 AU	max. Earth dist.	-2999 Jul 31 j 15:12	12° $\approx$ 53'13	10.67394 AU
direct	-3004 Jan 20 j 02:19	25° $\approx$ 36'52		morning rise	-2999 Aug 17 j 15:25	14° $\approx$ 56'28	
	-3004 Apr 01 j 20:19	0° $\approx$		retrograde	-2999 Nov 24 j 21:14	22° $\approx$ 08'51	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 34

Attention, astronomical year style is used: The year -2998 in astronomical counting style is the year 2999 BCE in historical counting style.

opposition	-2998 Jan 31 j 18:58	18° <del>5</del> 49'31	1°51'06	retrograde	-2992 Feb 01 j 06:35	0° <del>5</del> 15'10	
min. Earth dist.	-2998 Jan 31 j 14:31	18° <del>5</del> 50'22	8.74223 AU		-2992 Feb 19 j 00:48	30° <del>8</del> 17	
direct	-2998 Apr 12 j 09:47	15° <del>5</del> 24'16		opposition	-2992 Apr 11 j 18:20	26° <del>1</del> 58'57	2°47'42
evening set	-2998 Jul 26 j 16:48	22° <del>5</del> 54'36		min. Earth dist.	-2992 Apr 12 j 02:20	26° <del>1</del> 57'29	9.20547 AU
				direct	-2992 Jun 22 j 08:42	23° <del>1</del> 40'02	
conjunction	-2998 Aug 12 j 22:02	24° <del>5</del> 57'48	1°41'53		-2992 Sep 26 j 14:39	0° <del>5</del>	
minimum elong	-2998 Aug 12 j 21:59	24° <del>5</del> 57'47	1°41'58	evening set	-2992 Oct 01 j 22:18	0° <del>5</del> 35'57	
max. Earth dist.	-2998 Aug 13 j 01:28	24° <del>5</del> 58'50	10.80794 AU				
morning rise	-2998 Aug 29 j 22:07	26° <del>5</del> 59'28		conjunction	-2992 Oct 18 j 08:02	2° <del>5</del> 29'27	2°13'03
	-2998 Sep 26 j 01:47	0° <del>0</del>		minimum elong	-2992 Oct 18 j 08:04	2° <del>5</del> 29'27	2°13'03
retrograde	-2998 Dec 06 j 19:25	4° <del>0</del> 03'51		max. Earth dist.	-2992 Oct 17 j 21:30	2° <del>5</del> 26'23	11.20167 AU
opposition	-2997 Feb 13 j 04:33	0° <del>0</del> 45'41	2°16'48	morning rise	-2992 Nov 03 j 16:40	4° <del>5</del> 22'41	
min. Earth dist.	-2997 Feb 13 j 02:11	0° <del>0</del> 46'08	8.87068 AU	retrograde	-2991 Feb 11 j 18:30	11° <del>5</del> 14'05	
	-2997 Feb 23 j 07:08	30° <del>8</del> 15		opposition	-2991 Apr 23 j 13:08	7° <del>5</del> 57'27	2°34'48
direct	-2997 Apr 25 j 05:52	27° <del>5</del> 21'38		min. Earth dist.	-2991 Apr 23 j 23:01	7° <del>5</del> 55'39	9.19476 AU
	-2997 Jun 23 j 02:47	0° <del>0</del>		direct	-2991 Jul 03 j 22:05	4° <del>5</del> 39'08	
evening set	-2997 Aug 07 j 23:50	4° <del>0</del> 43'29		evening set	-2991 Oct 12 j 21:46	11° <del>5</del> 33'51	
conjunction	-2997 Aug 24 j 23:56	6° <del>0</del> 43'46	2°00'30	conjunction	-2991 Oct 29 j 07:28	13° <del>5</del> 27'42	2°00'01
minimum elong	-2997 Aug 24 j 23:53	6° <del>0</del> 43'45	2°00'34	minimum elong	-2991 Oct 29 j 07:31	13° <del>5</del> 27'42	2°00'00
max. Earth dist.	-2997 Aug 25 j 01:05	6° <del>0</del> 44'07	10.92839 AU	max. Earth dist.	-2991 Oct 28 j 19:40	13° <del>5</del> 24'15	11.17773 AU
morning rise	-2997 Sep 10 j 19:07	8° <del>0</del> 42'40		morning rise	-2991 Nov 14 j 17:02	15° <del>5</del> 21'32	
	-2997 Nov 20 j 06:43	15° <del>0</del>		retrograde	-2990 Feb 23 j 09:25	22° <del>5</del> 16'38	
retrograde	-2997 Dec 18 j 12:58	15° <del>0</del> 40'39		opposition	-2990 May 05 j 09:34	18° <del>5</del> 59'17	2°16'10
	-2996 Jan 16 j 04:16	15° <del>0</del> 15		min. Earth dist.	-2990 May 05 j 20:03	18° <del>5</del> 57'22	9.15694 AU
opposition	-2996 Feb 25 j 08:38	12° <del>0</del> 23'25	2°36'08	direct	-2990 Jul 15 j 11:11	15° <del>5</del> 41'20	
min. Earth dist.	-2996 Feb 25 j 09:06	12° <del>0</del> 23'20	8.98324 AU	evening set	-2990 Oct 23 j 22:07	22° <del>5</del> 36'22	
direct	-2996 May 06 j 17:53	9° <del>0</del> 00'33					
	-2996 Aug 07 j 20:36	15° <del>0</del>		conjunction	-2990 Nov 09 j 08:47	24° <del>5</del> 31'05	1°42'26
evening set	-2996 Aug 18 j 21:38	16° <del>0</del> 14'51		minimum elong	-2990 Nov 09 j 08:50	24° <del>5</del> 31'06	1°42'23
				max. Earth dist.	-2990 Nov 08 j 20:58	24° <del>5</del> 27'37	11.12722 AU
conjunction	-2996 Sep 04 j 17:00	18° <del>0</del> 12'41	2°13'50	morning rise	-2990 Nov 25 j 19:59	26° <del>5</del> 26'04	
minimum elong	-2996 Sep 04 j 16:58	18° <del>0</del> 12'40	2°13'54		-2990 Dec 29 j 12:48	0° <del>0</del> 17	
max. Earth dist.	-2996 Sep 04 j 14:53	18° <del>0</del> 12'03	11.03077 AU	retrograde	-2989 Mar 07 j 07:32	3° <del>0</del> 26'26	
morning rise	-2996 Sep 21 j 08:09	20° <del>0</del> 09'18		opposition	-2989 May 17 j 08:53	0° <del>0</del> 08'09	1°52'14
retrograde	-2996 Dec 29 j 00:19	27° <del>0</del> 02'35		min. Earth dist.	-2989 May 17 j 19:17	0° <del>0</del> 06'14	9.09308 AU
opposition	-2995 Mar 08 j 08:36	23° <del>0</del> 46'00	2°48'53		-2989 May 19 j 05:18	30° <del>8</del> 15	
min. Earth dist.	-2995 Mar 08 j 11:40	23° <del>0</del> 45'26	9.07574 AU	direct	-2989 Jul 27 j 01:17	26° <del>5</del> 50'21	
direct	-2995 May 18 j 23:00	20° <del>0</del> 24'17			-2989 Sep 29 j 03:36	0° <del>0</del> 17	
evening set	-2995 Aug 30 j 11:24	27° <del>0</del> 32'06		evening set	-2989 Nov 04 j 01:32	3° <del>0</del> 47'12	
conjunction	-2995 Sep 16 j 02:52	29° <del>0</del> 27'58	2°21'43	conjunction	-2989 Nov 20 j 13:43	5° <del>0</del> 43'18	1°20'44
minimum elong	-2995 Sep 16 j 02:51	29° <del>0</del> 27'58	2°21'46	minimum elong	-2989 Nov 20 j 13:46	5° <del>0</del> 43'18	1°20'41
max. Earth dist.	-2995 Sep 15 j 21:50	29° <del>0</del> 26'30	11.11156 AU	max. Earth dist.	-2989 Nov 20 j 01:23	5° <del>0</del> 39'39	11.05164 AU
	-2995 Sep 20 j 16:31	0° <del>0</del> 17		morning rise	-2989 Dec 07 j 03:19	7° <del>0</del> 39'55	
morning rise	-2995 Oct 02 j 14:55	1° <del>0</del> 22'52		retrograde	-2988 Mar 18 j 10:26	14° <del>0</del> 47'07	
retrograde	-2994 Jan 09 j 10:21	8° <del>0</del> 13'12		opposition	-2988 May 28 j 12:15	11° <del>0</del> 27'40	1°23'34
opposition	-2994 Mar 20 j 05:25	4° <del>0</del> 56'59	2°54'58	min. Earth dist.	-2988 May 28 j 23:04	11° <del>0</del> 25'41	9.00530 AU
min. Earth dist.	-2994 Mar 20 j 09:53	4° <del>0</del> 56'10	9.14499 AU	direct	-2988 Aug 06 j 15:36	8° <del>0</del> 09'45	
direct	-2994 May 30 j 23:50	1° <del>0</del> 36'20			-2988 Nov 12 j 23:16	15° <del>0</del> 17	
evening set	-2994 Sep 10 j 18:54	8° <del>0</del> 38'51		evening set	-2988 Nov 14 j 09:50	15° <del>0</del> 10'03	
				max. Earth dist.	-2988 Nov 30 j 10:55	17° <del>0</del> 04'02	10.95362 AU
conjunction	-2994 Sep 27 j 07:36	10° <del>0</del> 33'22	2°24'08	conjunction	-2988 Dec 01 j 00:03	17° <del>0</del> 07'57	0°55'30
minimum elong	-2994 Sep 27 j 07:36	10° <del>0</del> 33'22	2°24'10	minimum elong	-2988 Dec 01 j 00:05	17° <del>0</del> 07'58	0°55'26
max. Earth dist.	-2994 Sep 27 j 01:11	10° <del>0</del> 31'30	11.16807 AU	morning rise	-2988 Dec 17 j 16:49	19° <del>0</del> 06'40	
morning rise	-2994 Oct 13 j 17:25	12° <del>0</del> 27'06		retrograde	-2987 Mar 30 j 20:37	26° <del>0</del> 22'13	
retrograde	-2993 Jan 20 j 20:42	19° <del>0</del> 16'08		opposition	-2987 Jun 09 j 20:53	23° <del>0</del> 01'25	0°50'55
opposition	-2993 Apr 01 j 00:09	16° <del>0</del> 00'02	2°54'31	min. Earth dist.	-2987 Jun 10 j 07:57	22° <del>0</del> 59'21	8.89673 AU
min. Earth dist.	-2993 Apr 01 j 06:03	15° <del>0</del> 58'57	9.18872 AU	direct	-2987 Aug 18 j 11:37	19° <del>0</del> 43'05	
direct	-2993 Jun 11 j 17:59	12° <del>0</del> 40'21		evening set	-2987 Nov 26 j 00:41	26° <del>0</del> 48'25	
evening set	-2993 Sep 21 j 21:56	19° <del>0</del> 38'51					
conjunction	-2993 Oct 08 j 08:46	21° <del>0</del> 32'36	2°21'11	conjunction	-2987 Dec 12 j 17:36	28° <del>0</del> 48'33	0°27'29
minimum elong	-2993 Oct 08 j 08:47	21° <del>0</del> 32'36	2°21'12	minimum elong	-2987 Dec 12 j 17:38	28° <del>0</del> 48'33	0°27'24
max. Earth dist.	-2993 Oct 08 j 00:46	21° <del>0</del> 30'16	11.19844 AU	max. Earth dist.	-2987 Dec 12 j 04:57	28° <del>0</del> 44'44	10.83646 AU
morning rise	-2993 Oct 24 j 17:24	23° <del>0</del> 25'47			-2987 Dec 22 j 14:50	0° <del>0</del> 17	
	-2992 Jan 14 j 15:44	0° <del>0</del> 15		morning rise	-2987 Dec 29 j 13:55	0° <del>0</del> 17'49'45	

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 35

Attention, astronomical year style is used: The year -2986 in astronomical counting style is the year 2987 BCE in historical counting style.

retrograde	-2986 Apr 12 j 15:21	8°♂15'01		morning rise	-2980 Mar 18 j 15:36	19°♂10'43	
opposition	-2986 Jun 22 j 11:26	4°♂52'40	0°15'15	retrograde	-2980 Jul 04 j 12:57	27°♂40'51	
min. Earth dist.	-2986 Jun 22 j 21:54	4°♂50'42	8.77106 AU	opposition	-2980 Sep 10 j 12:26	24°♂09'55	-2°-50'-54
direct	-2986 Aug 30 j 12:15	1°♂33'40		min. Earth dist.	-2980 Sep 10 j 10:07	24°♂10'23	7.98292 AU
desc. node	-2986 Nov 24 j 19:19	7°♂13'03		direct	-2980 Nov 15 j 13:16	20°♂43'11	
evening set	-2986 Dec 08 j 00:11	8°♂45'38		evening set	-2979 Feb 26 j 05:50	28°♂54'47	
					-2979 Mar 06 j 13:37	0°♂	
conjunction	-2986 Dec 24 j 20:16	10°♂48'20	0°-2'-28	conjunction	-2979 Mar 16 j 00:07	1°♂14'44	-2°-20'-17
minimum elong	-2986 Dec 24 j 20:17	10°♂48'20	0°02'35	minimum elong	-2979 Mar 16 j 00:07	1°♂14'44	2°20'21
behind sun begin	-2986 Dec 24 j 13:14	10°♂46'12		max. Earth dist.	-2979 Mar 16 j 05:15	1°♂16'26	9.94360 AU
behind sun end	-2986 Dec 25 j 03:19	10°♂50'28		morning rise	-2979 Apr 02 j 22:20	3°♂35'58	
max. Earth dist.	-2986 Dec 24 j 09:15	10°♂44'59	10.70403 AU	retrograde	-2979 Jul 19 j 15:39	12°♂10'42	
morning rise	-2985 Jan 10 j 20:15	12°♂52'19		opposition	-2979 Sep 25 j 02:03	8°♂39'14	-2°-57'-38
retrograde	-2985 Apr 25 j 19:22	20°♂28'28		min. Earth dist.	-2979 Sep 24 j 20:42	8°♂40'21	7.91637 AU
opposition	-2985 Jul 05 j 08:37	17°♂04'27	0°-22'-11	direct	-2979 Nov 29 j 23:32	5°♂11'12	
min. Earth dist.	-2985 Jul 05 j 17:24	17°♂02'46	8.63262 AU	evening set	-2978 Mar 13 j 14:04	13°♂30'08	
direct	-2985 Sep 11 j 19:15	13°♂44'32					
evening set	-2985 Dec 20 j 10:00	21°♂04'42		conjunction	-2978 Mar 31 j 12:05	15°♂51'53	-2°-21'-2
conjunction	-2984 Jan 06 j 09:25	23°♂10'16	0°-33'00	minimum elong	-2978 Mar 31 j 12:06	15°♂51'54	2°21'05
minimum elong	-2984 Jan 06 j 09:24	23°♂10'15	0°33'07	max. Earth dist.	-2978 Mar 31 j 20:57	15°♂54'50	9.89405 AU
max. Earth dist.	-2984 Jan 05 j 23:34	23°♂07'13	10.56107 AU	morning rise	-2978 Apr 18 j 12:58	18°♂14'36	
morning rise	-2984 Jan 23 j 13:15	25°♂17'16		retrograde	-2978 Aug 03 j 18:49	26°♂49'58	
	-2984 Mar 06 j 16:57	0°♂		opposition	-2978 Oct 09 j 17:42	23°♂18'29	-2°-52'-55
retrograde	-2984 May 08 j 10:37	3°♂05'12		min. Earth dist.	-2978 Oct 09 j 09:45	23°♂20'08	7.88510 AU
	-2984 Jul 13 j 03:51	30°♂		direct	-2978 Dec 14 j 16:34	19°♂49'21	
opposition	-2984 Jul 17 j 13:31	29°♂39'31	0°-59'-52	evening set	-2977 Mar 29 j 03:15	28°♂12'46	
min. Earth dist.	-2984 Jul 17 j 20:33	29°♂38'09	8.48668 AU		-2977 Apr 11 j 17:15	0°♂	
direct	-2984 Sep 23 j 09:16	26°♂18'29		conjunction	-2977 Apr 16 j 04:28	0°♂35'34	-2°-12'-40
	-2984 Nov 28 j 23:21	0°♂		minimum elong	-2977 Apr 16 j 04:30	0°♂35'35	2°12'41
evening set	-2983 Jan 01 j 07:30	3°♂48'15		max. Earth dist.	-2977 Apr 16 j 16:21	0°♂39'31	9.88153 AU
conjunction	-2983 Jan 18 j 10:23	5°♂56'51	-1°-2'-50	morning rise	-2977 May 04 j 07:20	2°♂58'55	
minimum elong	-2983 Jan 18 j 10:21	5°♂56'50	1°02'57	retrograde	-2977 Aug 18 j 18:20	11°♂30'54	
max. Earth dist.	-2983 Jan 18 j 01:46	5°♂54'08	10.41366 AU	opposition	-2977 Oct 24 j 08:53	7°♂59'51	-2°-36'-52
morning rise	-2983 Feb 04 j 18:16	8°♂07'03		min. Earth dist.	-2977 Oct 23 j 23:13	8°♂01'52	7.89121 AU
retrograde	-2983 May 22 j 12:04	16°♂07'10		direct	-2977 Dec 29 j 13:38	4°♂29'55	
opposition	-2983 Jul 31 j 02:23	12°♂39'53	-1°-35'-51	evening set	-2976 Apr 12 j 17:47	12°♂54'38	
min. Earth dist.	-2983 Jul 31 j 07:44	12°♂38'50	8.34031 AU	conjunction	-2976 Apr 30 j 21:20	15°♂17'36	-1°-55'-42
direct	-2983 Oct 06 j 06:40	9°♂17'31		minimum elong	-2976 Apr 30 j 21:24	15°♂17'37	1°55'41
evening set	-2982 Jan 14 j 18:05	16°♂57'59		max. Earth dist.	-2976 May 01 j 11:02	15°♂22'08	9.90682 AU
conjunction	-2982 Feb 01 j 00:38	19°♂09'40	-1°-30'-18	morning rise	-2976 May 19 j 01:17	17°♂40'40	
minimum elong	-2982 Feb 01 j 00:35	19°♂09'39	1°30'25	retrograde	-2976 Sep 01 j 11:32	26°♂05'32	
max. Earth dist.	-2982 Jan 31 j 17:59	19°♂07'33	10.26974 AU	opposition	-2976 Nov 06 j 21:08	22°♂35'24	-2°-10'-43
morning rise	-2982 Feb 18 j 12:31	21°♂23'05		min. Earth dist.	-2976 Nov 06 j 10:45	22°♂37'35	7.93413 AU
retrograde	-2982 Jun 05 j 21:15	29°♂34'54		direct	-2975 Jan 12 j 11:56	19°♂05'00	
opposition	-2982 Aug 13 j 22:57	26°♂06'09	-2°-7'-56	evening set	-2975 Apr 28 j 05:46	27°♂27'51	
min. Earth dist.	-2982 Aug 14 j 02:25	26°♂05'27	8.20201 AU	conjunction	-2975 May 16 j 10:28	29°♂50'03	-1°-31'-30
direct	-2982 Oct 19 j 15:27	22°♂42'20		minimum elong	-2975 May 16 j 10:31	29°♂50'04	1°31'28
	-2981 Jan 24 j 06:23	0°♂		max. Earth dist.	-2975 May 17 j 00:50	29°♂54'45	9.96778 AU
evening set	-2981 Jan 28 j 17:52	0°♂33'53			-2975 May 17 j 16:50	0°♂	
conjunction	-2981 Feb 15 j 04:16	2°♂48'37	-1°-53'-34	morning rise	-2975 Jun 03 j 14:12	2°♂11'53	
minimum elong	-2981 Feb 15 j 04:13	2°♂48'36	1°53'39	retrograde	-2975 Sep 15 j 20:02	10°♂26'48	
max. Earth dist.	-2981 Feb 15 j 01:00	2°♂47'34	10.13799 AU	opposition	-2975 Nov 21 j 04:40	6°♂57'58	-1°-36'-42
morning rise	-2981 Mar 04 j 19:52	5°♂05'02		min. Earth dist.	-2975 Nov 20 j 18:01	7°♂00'11	8.01061 AU
retrograde	-2981 Jun 20 j 14:08	13°♂27'12		direct	-2974 Jan 27 j 08:34	3°♂27'29	
opposition	-2981 Aug 28 j 02:44	9°♂57'12	-2°-33'-43	evening set	-2974 May 13 j 11:40	11°♂45'38	
min. Earth dist.	-2981 Aug 28 j 03:36	9°♂57'01	8.08028 AU	conjunction	-2974 May 31 j 15:57	14°♂06'08	-1°-2'-2
direct	-2981 Nov 02 j 10:15	6°♂31'54		minimum elong	-2974 May 31 j 16:00	14°♂06'09	1°01'59
evening set	-2980 Feb 12 j 06:11	14°♂34'06		max. Earth dist.	-2974 Jun 01 j 06:09	14°♂10'45	10.05987 AU
	-2980 Feb 15 j 14:34	15°♂			-2974 Jun 07 j 14:15	15°♂	
conjunction	-2980 Feb 29 j 20:32	16°♂51'39	-2°-10'-46	morning rise	-2974 Jun 18 j 18:01	16°♂25'51	
minimum elong	-2980 Feb 29 j 20:30	16°♂51'38	2°10'50	retrograde	-2974 Sep 29 j 19:06	24°♂29'05	
max. Earth dist.	-2980 Feb 29 j 21:29	16°♂51'57	10.02681 AU	opposition	-2974 Dec 05 j 05:46	21°♂01'49	0°-57'-35

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Attention, astronomical year style is used: The year -2974 in astronomical counting style is the year 2975 BCE in historical counting style.

min. Earth dist.	-2974 Dec 04 j 19:07	21°♄04'01	8.11537 AU	opposition	-2967 Feb 19 j 02:11	7°♄12'59	2°27'45
direct	-2973 Feb 11 j 01:01	17°♄31'39		min. Earth dist.	-2967 Feb 19 j 00:39	7°♄13'16	8.93557 AU
evening set	-2973 May 28 j 08:46	25°♄42'52		direct	-2967 May 01 j 08:08	3°♄49'53	
				evening set	-2967 Aug 13 j 18:48	11°♄07'50	
conjunction	-2973 Jun 15 j 11:09	28°♄00'55	0°-29'-32	conjunction	-2967 Aug 30 j 16:21	13°♄06'47	2°08'10
minimum elong	-2973 Jun 15 j 11:10	28°♄00'56	0°29'28	minimum elong	-2967 Aug 30 j 16:19	13°♄06'46	2°08'14
max. Earth dist.	-2973 Jun 16 j 00:32	28°♄05'12	10.17690 AU	max. Earth dist.	-2967 Aug 30 j 16:16	13°♄06'45	10.98969 AU
	-2973 Jul 01 j 01:22	0°♄			-2967 Sep 15 j 18:07	15°♄	
morning rise	-2973 Jul 03 j 10:09	0°♄17'49		morning rise	-2967 Sep 16 j 09:23	15°♄04'25	
retrograde	-2973 Oct 13 j 07:59	8°♄08'37		retrograde	-2967 Dec 24 j 02:34	21°♄59'53	
opposition	-2973 Dec 18 j 23:26	4°♄43'06	0°-16'-15	opposition	-2966 Mar 03 j 04:23	18°♄43'25	2°43'36
min. Earth dist.	-2973 Dec 18 j 12:51	4°♄45'15	8.24170 AU	min. Earth dist.	-2966 Mar 03 j 04:47	18°♄43'20	9.04085 AU
direct	-2972 Feb 25 j 11:12	1°♄13'37		direct	-2966 May 13 j 16:05	15°♄21'38	
asc. node	-2972 May 15 j 23:59	6°♄14'28		evening set	-2966 Aug 25 j 12:29	22°♄32'32	
evening set	-2972 Jun 10 j 19:14	9°♄16'25					
conjunction	-2972 Jun 28 j 18:21	11°♄31'25	0°03'53	conjunction	-2966 Sep 11 j 05:52	24°♄29'16	2°18'36
minimum elong	-2972 Jun 28 j 18:21	11°♄31'25	0°03'59	minimum elong	-2966 Sep 11 j 05:51	24°♄29'16	2°18'39
behind sun begin	-2972 Jun 28 j 11:10	11°♄29'11		max. Earth dist.	-2966 Sep 11 j 03:40	24°♄28'37	11.08353 AU
behind sun end	-2972 Jun 29 j 01:32	11°♄33'40		morning rise	-2966 Sep 27 j 19:10	26°♄24'53	
max. Earth dist.	-2972 Jun 29 j 06:41	11°♄35'18	10.31151 AU		-2966 Oct 31 j 17:50	0°♄	
morning rise	-2972 Jul 16 j 13:06	13°♄45'02		retrograde	-2965 Jan 04 j 14:55	3°♄16'34	
retrograde	-2972 Oct 25 j 10:59	21°♄23'33		opposition	-2965 Mar 15 j 02:57	0°♄00'42	2°52'47
opposition	-2972 Dec 31 j 09:24	17°♄59'53	0°24'37	min. Earth dist.	-2965 Mar 15 j 06:19	0°♄00'05	9.12333 AU
min. Earth dist.	-2972 Dec 30 j 23:37	18°♄01'50	8.38195 AU		-2965 Mar 15 j 06:45	30°♄	
direct	-2971 Mar 10 j 13:30	14°♄31'23		direct	-2965 May 25 j 18:43	26°♄40'05	
evening set	-2971 Jun 24 j 18:07	22°♄24'56		evening set	-2965 Aug 01 j 01:45	0°♄	
					-2965 Sep 05 j 23:23	3°♄45'05	
conjunction	-2971 Jul 12 j 12:47	24°♄36'33	0°36'04	conjunction	-2965 Sep 22 j 13:18	5°♄40'10	2°23'34
minimum elong	-2971 Jul 12 j 12:45	24°♄36'33	0°36'11	minimum elong	-2965 Sep 22 j 13:17	5°♄40'10	2°23'36
max. Earth dist.	-2971 Jul 12 j 23:44	24°♄39'57	10.45583 AU	max. Earth dist.	-2965 Sep 22 j 07:34	5°♄38'30	11.15294 AU
morning rise	-2971 Jul 30 j 02:20	26°♄46'37		morning rise	-2965 Oct 09 j 00:01	7°♄34'22	
	-2971 Aug 27 j 05:37	0°♄		retrograde	-2964 Jan 16 j 00:13	14°♄23'53	
retrograde	-2971 Nov 07 j 05:36	4°♄13'40		opposition	-2964 Mar 25 j 22:52	11°♄08'19	2°55'21
opposition	-2970 Jan 13 j 11:45	0°♄51'50	1°02'53	min. Earth dist.	-2964 Mar 26 j 05:10	11°♄07'09	9.17965 AU
min. Earth dist.	-2970 Jan 13 j 03:45	0°♄53'25	8.52846 AU	direct	-2964 Jun 05 j 15:08	7°♄48'41	
	-2970 Jan 24 j 13:46	30°♄		evening set	-2964 Sep 16 j 04:54	14°♄49'07	
direct	-2970 Mar 24 j 06:06	27°♄24'34					
	-2970 May 20 j 11:34	0°♄		conjunction	-2964 Oct 02 j 16:21	16°♄43'08	2°23'05
evening set	-2970 Jul 08 j 05:03	5°♄08'37		minimum elong	-2964 Oct 02 j 16:22	16°♄43'08	2°23'06
conjunction	-2970 Jul 25 j 18:28	7°♄16'44	1°05'37	max. Earth dist.	-2964 Oct 02 j 07:36	16°♄40'35	11.19507 AU
minimum elong	-2970 Jul 25 j 18:25	7°♄16'43	1°05'43	morning rise	-2964 Oct 19 j 01:32	18°♄36'31	
max. Earth dist.	-2970 Jul 26 j 03:03	7°♄19'22	10.60239 AU	retrograde	-2963 Jan 26 j 09:42	25°♄25'41	
morning rise	-2970 Aug 12 j 02:30	9°♄23'15		opposition	-2963 Apr 06 j 17:40	22°♄10'03	2°51'28
retrograde	-2970 Nov 19 j 14:55	16°♄40'04		min. Earth dist.	-2963 Apr 07 j 01:45	22°♄08'34	9.20746 AU
opposition	-2969 Jan 26 j 06:54	13°♄19'57	1°36'51	direct	-2963 Jun 17 j 09:43	18°♄51'14	
min. Earth dist.	-2969 Jan 26 j 01:23	13°♄21'02	8.67396 AU	evening set	-2963 Sep 27 j 06:39	25°♄48'28	
direct	-2969 Apr 06 j 14:12	9°♄54'02					
evening set	-2969 Jul 21 j 04:10	17°♄28'46		conjunction	-2963 Oct 13 j 16:50	27°♄42'01	2°17'19
conjunction	-2969 Aug 07 j 12:00	19°♄33'30	1°31'18	minimum elong	-2963 Oct 13 j 16:51	27°♄42'02	2°17'19
minimum elong	-2969 Aug 07 j 11:56	19°♄33'30	1°31'23	max. Earth dist.	-2963 Oct 13 j 06:44	27°♄39'05	11.20844 AU
max. Earth dist.	-2969 Aug 07 j 17:16	19°♄35'06	10.74424 AU	morning rise	-2963 Oct 30 j 01:21	29°♄35'11	
morning rise	-2969 Aug 24 j 14:40	21°♄36'42			-2963 Nov 02 j 17:14	0°♄	
retrograde	-2969 Dec 01 j 15:22	28°♄44'46		retrograde	-2962 Feb 06 j 22:28	6°♄25'45	
opposition	-2968 Feb 07 j 19:25	25°♄26'09	2°05'23	opposition	-2962 Apr 18 j 12:30	3°♄09'42	2°41'21
min. Earth dist.	-2968 Feb 07 j 16:11	25°♄26'46	8.81165 AU	min. Earth dist.	-2962 Apr 18 j 21:39	3°♄08'02	9.20618 AU
direct	-2968 Apr 18 j 15:21	22°♄01'38			-2962 Jun 15 j 13:57	30°♄	
evening set	-2968 Aug 01 j 16:27	29°♄27'37		direct	-2962 Jun 29 j 00:35	29°♄51'30	
	-2968 Aug 06 j 06:49	0°♄		evening set	-2962 Jul 12 j 07:50	0°♄	
					-2962 Oct 08 j 06:52	6°♄46'55	
conjunction	-2968 Aug 18 j 18:50	1°♄29'14	1°52'19	conjunction	-2962 Oct 24 j 16:39	8°♄40'36	2°06'31
minimum elong	-2968 Aug 18 j 18:47	1°♄29'13	1°52'23	minimum elong	-2962 Oct 24 j 16:41	8°♄40'37	2°06'30
max. Earth dist.	-2968 Aug 18 j 20:50	1°♄29'50	10.87510 AU	max. Earth dist.	-2962 Oct 24 j 05:06	8°♄37'15	11.19314 AU
morning rise	-2968 Sep 04 j 16:26	3°♄29'25		morning rise	-2962 Nov 10 j 01:33	10°♄34'09	
retrograde	-2968 Dec 12 j 11:32	10°♄30'23		retrograde	-2961 Feb 18 j 12:12	17°♄27'40	

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Attention, astronomical year style is used: The year -2961 in astronomical counting style is the year 2962 BCE in historical counting style.

opposition	-2961 Apr 30 j 08:23	14°♄10'56	2°25'19	max. Earth dist.	-2956 Dec 30 j 13:44	17°♄43'00	10.60621 AU
min. Earth dist.	-2961 Apr 30 j 19:18	14°♄08'56	9.17648 AU	morning rise	-2955 Jan 17 j 03:37	19°♄52'25	
direct	-2961 Jul 10 j 12:32	10°♄53'01		retrograde	-2955 May 02 j 14:03	27°♄35'34	
evening set	-2961 Oct 19 j 07:13	17°♄48'09		opposition	-2955 Jul 11 j 22:52	24°♄09'58	0°-42'-50
				min. Earth dist.	-2955 Jul 12 j 07:32	24°♄08'17	8.53273 AU
conjunction	-2961 Nov 04 j 17:19	19°♄42'29	1°50'59	direct	-2955 Sep 18 j 01:48	20°♄48'44	
minimum elong	-2961 Nov 04 j 17:22	19°♄42'30	1°50'57	evening set	-2955 Dec 26 j 19:38	28°♄14'40	
max. Earth dist.	-2961 Nov 04 j 03:45	19°♄38'31	11.15021 AU		-2954 Jan 09 j 22:36	0°♄	
morning rise	-2961 Nov 21 j 03:42	21°♄36'57					
retrograde	-2960 Mar 01 j 06:44	28°♄35'03		conjunction	-2954 Jan 12 j 21:02	0°♄22'05	0°-49'-28
opposition	-2960 May 11 j 06:46	25°♄17'19	2°03'46	minimum elong	-2954 Jan 12 j 21:00	0°♄22'05	0°49'35
min. Earth dist.	-2960 May 11 j 19:06	25°♄15'03	9.11975 AU	max. Earth dist.	-2954 Jan 12 j 12:07	0°♄19'18	10.46059 AU
direct	-2960 Jul 21 j 03:01	21°♄59'25		morning rise	-2954 Jan 30 j 03:13	2°♄31'04	
evening set	-2960 Oct 29 j 09:18	28°♄55'42		retrograde	-2954 May 16 j 10:28	10°♄26'15	
	-2960 Nov 07 j 14:28	0°♄		opposition	-2954 Jul 25 j 08:17	6°♄59'00	-1°-19'-54
				min. Earth dist.	-2954 Jul 25 j 14:26	6°♄57'47	8.38734 AU
conjunction	-2960 Nov 14 j 20:37	0°♄51'13	1°31'06	direct	-2954 Sep 30 j 20:35	3°♄36'35	
minimum elong	-2960 Nov 14 j 20:40	0°♄51'14	1°31'04	evening set	-2953 Jan 09 j 00:17	11°♄12'41	
max. Earth dist.	-2960 Nov 14 j 06:20	0°♄47'00	11.08130 AU				
morning rise	-2960 Dec 01 j 09:12	2°♄47'08		conjunction	-2953 Jan 26 j 05:20	13°♄23'10	-1°-18'-16
retrograde	-2959 Mar 13 j 05:47	9°♄51'25		minimum elong	-2953 Jan 26 j 05:17	13°♄23'09	1°18'23
opposition	-2959 May 23 j 08:36	6°♄32'23	1°37'13	max. Earth dist.	-2953 Jan 25 j 23:31	13°♄21'19	10.31655 AU
min. Earth dist.	-2959 May 23 j 21:02	6°♄30'05	9.03808 AU	morning rise	-2953 Feb 12 j 15:19	15°♄35'17	
direct	-2959 Aug 01 j 18:25	3°♄14'16		retrograde	-2953 May 30 j 16:10	23°♄42'27	
evening set	-2959 Nov 09 j 15:15	10°♄13'17		opposition	-2953 Aug 08 j 01:29	20°♄13'41	-1°-54'-5
				min. Earth dist.	-2953 Aug 08 j 04:39	20°♄13'03	8.24755 AU
conjunction	-2959 Nov 26 j 04:37	12°♄10'26	1°07'25	direct	-2953 Oct 14 j 00:36	16°♄50'00	
minimum elong	-2959 Nov 26 j 04:40	12°♄10'27	1°07'22	evening set	-2952 Jan 22 j 18:08	24°♄36'56	
max. Earth dist.	-2959 Nov 25 j 15:10	12°♄06'26	10.98876 AU				
morning rise	-2959 Dec 12 j 19:54	14°♄08'16		conjunction	-2952 Feb 09 j 02:53	26°♄50'28	-1°-43'-41
	-2959 Dec 20 j 07:57	15°♄		minimum elong	-2952 Feb 09 j 02:49	26°♄50'27	1°43'47
retrograde	-2958 Mar 25 j 13:29	21°♄20'17		max. Earth dist.	-2952 Feb 09 j 00:06	26°♄49'35	10.18184 AU
opposition	-2958 Jun 04 j 14:48	17°♄59'44	1°06'17	morning rise	-2952 Feb 26 j 16:39	29°♄05'40	
min. Earth dist.	-2958 Jun 05 j 02:19	17°♄57'35	8.93436 AU		-2952 Mar 04 j 22:26	0°♄	
	-2958 Jul 24 j 23:32	15°♄		retrograde	-2952 Jun 13 j 07:00	7°♄23'51	
direct	-2958 Aug 13 j 13:11	14°♄41'10		opposition	-2952 Aug 21 j 02:18	3°♄53'50	-2°-23'-1
	-2958 Sep 01 j 19:45	15°♄		min. Earth dist.	-2952 Aug 21 j 02:30	3°♄53'48	8.12121 AU
evening set	-2958 Nov 21 j 03:02	21°♄44'31		direct	-2952 Oct 26 j 13:35	0°♄28'51	
				evening set	-2951 Feb 05 j 01:01	8°♄26'37	
conjunction	-2958 Dec 07 j 18:53	23°♄43'46	0°40'34				
minimum elong	-2958 Dec 07 j 18:54	23°♄43'46	0°40'30	conjunction	-2951 Feb 22 j 13:32	10°♄43'02	-2°-3'-50
max. Earth dist.	-2958 Dec 07 j 05:45	23°♄39'49	10.87581 AU	minimum elong	-2951 Feb 22 j 13:29	10°♄43'01	2°03'55
morning rise	-2958 Dec 24 j 13:28	25°♄43'56		max. Earth dist.	-2951 Feb 22 j 13:47	10°♄43'07	10.06446 AU
	-2957 Feb 02 j 16:19	0°♄		morning rise	-2951 Mar 12 j 07:01	13°♄01'04	
retrograde	-2957 Apr 07 j 05:23	3°♄05'06			-2951 Mar 28 j 04:41	15°♄	
	-2957 Jun 13 j 07:54	30°♄		retrograde	-2951 Jun 28 j 04:56	21°♄28'19	
opposition	-2957 Jun 17 j 02:40	29°♄42'56	0°31'51	opposition	-2951 Sep 04 j 09:43	17°♄57'25	-2°-44'-20
min. Earth dist.	-2957 Jun 17 j 13:26	29°♄40'55	8.81226 AU	min. Earth dist.	-2951 Sep 04 j 07:28	17°♄57'53	8.01603 AU
direct	-2957 Aug 25 j 10:06	26°♄23'41			-2951 Oct 17 j 21:25	15°♄	
	-2957 Oct 31 j 17:49	0°♄		direct	-2951 Nov 09 j 11:45	14°♄31'08	
evening set	-2957 Dec 02 j 22:31	3°♄33'02			-2951 Dec 01 j 23:48	15°♄	
				evening set	-2950 Feb 19 j 20:06	22°♄38'57	
conjunction	-2957 Dec 19 j 17:06	5°♄34'42	0°11'25				
minimum elong	-2957 Dec 19 j 17:07	5°♄34'43	0°11'19	conjunction	-2950 Mar 09 j 12:27	24°♄57'56	-2°-16'-59
behind sun begin	-2957 Dec 19 j 11:55	5°♄33'09		minimum elong	-2950 Mar 09 j 12:25	24°♄57'55	2°17'03
behind sun end	-2957 Dec 19 j 22:19	5°♄36'16		max. Earth dist.	-2950 Mar 09 j 16:05	24°♄59'08	9.97194 AU
max. Earth dist.	-2957 Dec 19 j 04:05	5°♄30'45	10.74658 AU	morning rise	-2950 Mar 27 j 09:19	27°♄18'21	
morning rise	-2956 Jan 05 j 15:27	7°♄37'35			-2950 Apr 18 j 01:24	0°♄	
retrograde	-2956 Apr 19 j 04:30	15°♄09'14		retrograde	-2950 Jul 13 j 07:18	5°♄51'43	
desc. node	-2956 May 09 j 12:00	14°♄49'07		opposition	-2950 Sep 18 j 22:03	2°♄20'22	-2°-55'-56
opposition	-2956 Jun 28 j 21:09	11°♄45'22	0°-5'00	min. Earth dist.	-2950 Sep 18 j 17:27	2°♄21'19	7.93900 AU
min. Earth dist.	-2956 Jun 29 j 07:14	11°♄43'26	8.67649 AU		-2950 Oct 19 j 22:57	30°♄	
direct	-2956 Sep 05 j 14:05	8°♄25'13		direct	-2950 Nov 23 j 19:14	28°♄52'53	
evening set	-2956 Dec 14 j 03:31	15°♄42'09			-2950 Dec 28 j 06:49	0°♄	
				evening set	-2949 Mar 07 j 00:59	7°♄09'04	
conjunction	-2956 Dec 31 j 01:20	17°♄46'34	0°-19'-5				
minimum elong	-2956 Dec 31 j 01:19	17°♄46'34	0°19'12	conjunction	-2949 Mar 24 j 21:08	9°♄30'05	-2°-21'-46

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 38

Attention, astronomical year style is used: The year -2949 in astronomical counting style is the year 2950 BCE in historical counting style.

minimum elong	-2949 Mar 24 j 21:08	9° $\text{K}$ 30'05	2°21'49	direct	-2943 Feb 18 j 09:26	25° $\text{U}$ 24'32	
max. Earth dist.	-2949 Mar 25 j 04:25	9° $\text{K}$ 32'30	9.91083 AU		-2943 May 05 j 17:29	0° $\text{II}$	
morning rise	-2949 Apr 11 j 20:59	11° $\text{K}$ 52'16		evening set	-2943 Jun 04 j 19:26	3° $\text{II}$ 31'04	
retrograde	-2949 Jul 28 j 10:34	20° $\text{K}$ 28'04					
opposition	-2949 Oct 03 j 13:28	16° $\text{K}$ 56'42	-2°-56'-22	conjunction	-2943 Jun 22 j 20:08	5° $\text{II}$ 47'26	0°-11'-1
min. Earth dist.	-2949 Oct 03 j 06:29	16° $\text{K}$ 58'09	7.89566 AU	minimum elong	-2943 Jun 22 j 20:09	5° $\text{II}$ 47'26	0°10'57
direct	-2949 Dec 08 j 11:05	13° $\text{K}$ 28'14		behind sun begin	-2943 Jun 22 j 14:42	5° $\text{II}$ 45'43	
evening set	-2948 Mar 21 j 12:32	21° $\text{K}$ 50'09		behind sun end	-2943 Jun 23 j 01:36	5° $\text{II}$ 49'09	
				max. Earth dist.	-2943 Jun 23 j 08:32	5° $\text{II}$ 51'21	10.25995 AU
conjunction	-2948 Apr 08 j 12:14	24° $\text{K}$ 12'33	-2°-17'-27	morning rise	-2943 Jul 10 j 16:49	8° $\text{II}$ 02'29	
minimum elong	-2948 Apr 08 j 12:16	24° $\text{K}$ 12'34	2°17'28	retrograde	-2943 Oct 20 j 02:42	15° $\text{II}$ 46'27	
max. Earth dist.	-2948 Apr 08 j 23:01	24° $\text{K}$ 16'08	9.88570 AU	asc. node	-2943 Oct 25 j 17:22	15° $\text{II}$ 44'43	
morning rise	-2948 Apr 26 j 14:28	26° $\text{K}$ 35'44		opposition	-2943 Dec 25 j 20:31	12° $\text{II}$ 22'31	0°06'38
	-2948 May 24 j 04:11	0° $\text{Y}$		min. Earth dist.	-2943 Dec 25 j 12:02	12° $\text{II}$ 24'14	8.32621 AU
retrograde	-2948 Aug 11 j 11:08	5° $\text{Y}$ 09'52		direct	-2942 Mar 04 j 16:01	8° $\text{II}$ 54'03	
opposition	-2948 Oct 17 j 05:28	1° $\text{Y}$ 38'55	-2°-45'-16	evening set	-2942 Jun 18 j 23:56	16° $\text{II}$ 51'55	
min. Earth dist.	-2948 Oct 16 j 20:15	1° $\text{Y}$ 40'51	7.88918 AU				
	-2948 Nov 06 j 18:11	30° $\text{R}$ $\text{K}$		conjunction	-2942 Jul 06 j 20:34	19° $\text{II}$ 05'03	0°22'00
direct	-2948 Dec 22 j 07:27	28° $\text{K}$ 09'43		minimum elong	-2942 Jul 06 j 20:33	19° $\text{II}$ 05'03	0°22'06
	-2947 Feb 05 j 02:21	0° $\text{Y}$		max. Earth dist.	-2942 Jul 07 j 06:13	19° $\text{II}$ 08'04	10.39628 AU
evening set	-2947 Apr 06 j 03:21	6° $\text{Y}$ 34'16		morning rise	-2942 Jul 24 j 12:35	21° $\text{II}$ 16'44	
				retrograde	-2942 Nov 02 j 00:27	28° $\text{II}$ 49'03	
conjunction	-2947 Apr 24 j 05:57	8° $\text{Y}$ 57'13	-2°-4'-12	opposition	-2941 Jan 08 j 02:39	25° $\text{II}$ 26'50	0°46'20
minimum elong	-2947 Apr 24 j 06:00	8° $\text{Y}$ 57'14	2°04'11	min. Earth dist.	-2941 Jan 07 j 19:23	25° $\text{II}$ 28'16	8.46597 AU
max. Earth dist.	-2947 Apr 24 j 19:36	9° $\text{Y}$ 01'44	9.89833 AU	direct	-2941 Mar 18 j 14:16	21° $\text{II}$ 59'19	
morning rise	-2947 May 12 j 09:38	11° $\text{Y}$ 20'29		evening set	-2941 Jul 02 j 16:41	29° $\text{II}$ 47'56	
retrograde	-2947 Aug 26 j 07:06	19° $\text{Y}$ 48'56			-2941 Jul 04 j 08:35	0° $\text{U}$	
opposition	-2947 Oct 31 j 19:28	16° $\text{Y}$ 18'50	-2°-23'-23				
min. Earth dist.	-2947 Oct 31 j 08:22	16° $\text{Y}$ 21'09	7.91988 AU	conjunction	-2941 Jul 20 j 08:26	1° $\text{U}$ 57'41	0°52'56
direct	-2946 Jan 06 j 05:36	12° $\text{Y}$ 49'10		minimum elong	-2941 Jul 20 j 08:23	1° $\text{U}$ 57'40	0°53'02
evening set	-2946 Apr 21 j 17:14	21° $\text{Y}$ 13'03		max. Earth dist.	-2941 Jul 20 j 15:47	1° $\text{U}$ 59'57	10.53765 AU
				morning rise	-2941 Aug 06 j 19:10	4° $\text{U}$ 05'51	
conjunction	-2946 May 09 j 21:37	23° $\text{Y}$ 35'37	-1°-43'-1	retrograde	-2941 Nov 14 j 14:01	11° $\text{U}$ 27'29	
minimum elong	-2946 May 09 j 21:41	23° $\text{Y}$ 35'38	1°42'59	opposition	-2940 Jan 21 j 01:12	8° $\text{U}$ 06'50	1°22'26
max. Earth dist.	-2946 May 10 j 13:09	23° $\text{Y}$ 40'43	9.94746 AU	min. Earth dist.	-2940 Jan 20 j 19:16	8° $\text{U}$ 07'59	8.60756 AU
morning rise	-2946 May 28 j 01:32	25° $\text{Y}$ 58'00		direct	-2940 Mar 31 j 03:13	4° $\text{U}$ 40'26	
	-2946 Jun 30 j 15:45	0° $\text{U}$		evening set	-2940 Jul 14 j 21:37	12° $\text{U}$ 19'45	
retrograde	-2946 Sep 09 j 20:11	4° $\text{U}$ 17'30					
opposition	-2946 Nov 15 j 05:31	0° $\text{U}$ 48'36	-1°-52'-34	conjunction	-2940 Aug 01 j 08:04	14° $\text{U}$ 26'05	1°20'29
min. Earth dist.	-2946 Nov 14 j 17:30	0° $\text{U}$ 51'05	7.98508 AU	minimum elong	-2940 Aug 01 j 08:01	14° $\text{U}$ 26'05	1°20'35
	-2946 Nov 25 j 01:29	30° $\text{R}$ $\text{Y}$		max. Earth dist.	-2940 Aug 01 j 13:25	14° $\text{U}$ 27'43	10.67720 AU
direct	-2945 Jan 21 j 02:24	27° $\text{Y}$ 18'45		morning rise	-2940 Aug 18 j 13:13	16° $\text{U}$ 30'51	
	-2945 Mar 17 j 19:55	0° $\text{U}$		retrograde	-2940 Nov 25 j 19:06	23° $\text{U}$ 43'08	
evening set	-2945 May 07 j 02:12	5° $\text{U}$ 38'54		opposition	-2939 Feb 01 j 17:02	20° $\text{U}$ 23'52	1°53'33
				min. Earth dist.	-2939 Feb 01 j 12:58	20° $\text{U}$ 24'39	8.74425 AU
conjunction	-2945 May 25 j 06:56	8° $\text{U}$ 00'09	-1°-15'-39	direct	-2939 Apr 13 j 08:08	16° $\text{U}$ 58'39	
minimum elong	-2945 May 25 j 06:59	8° $\text{U}$ 00'10	1°15'36	evening set	-2939 Jul 27 j 15:06	24° $\text{U}$ 28'58	
max. Earth dist.	-2945 May 25 j 22:51	8° $\text{U}$ 05'20	10.02874 AU				
morning rise	-2945 Jun 12 j 09:46	10° $\text{U}$ 20'45		conjunction	-2939 Aug 13 j 20:07	26° $\text{U}$ 32'06	1°43'41
	-2945 Jul 22 j 10:54	15° $\text{U}$		minimum elong	-2939 Aug 13 j 20:03	26° $\text{U}$ 32'05	1°43'46
retrograde	-2945 Sep 24 j 01:17	18° $\text{U}$ 29'07		max. Earth dist.	-2939 Aug 13 j 23:22	26° $\text{U}$ 33'05	10.80860 AU
opposition	-2945 Nov 29 j 09:40	15° $\text{U}$ 01'41	-1°-15'-24	morning rise	-2939 Aug 30 j 19:50	28° $\text{U}$ 33'42	
min. Earth dist.	-2945 Nov 28 j 22:03	15° $\text{U}$ 04'04	8.07922 AU		-2939 Sep 12 j 08:01	0° $\text{U}$	
	-2945 Nov 29 j 17:47	15° $\text{R}$ $\text{U}$		retrograde	-2939 Dec 07 j 18:20	5° $\text{U}$ 38'11	
direct	-2944 Feb 04 j 20:04	11° $\text{U}$ 31'58		opposition	-2938 Feb 14 j 02:50	2° $\text{U}$ 20'04	2°18'46
	-2944 Apr 09 j 12:12	15° $\text{U}$		min. Earth dist.	-2938 Feb 14 j 01:32	2° $\text{U}$ 20'19	8.87013 AU
evening set	-2944 May 21 j 03:39	19° $\text{U}$ 46'05			-2938 Mar 20 j 02:20	30° $\text{R}$ $\text{U}$	
				direct	-2938 Apr 26 j 03:56	28° $\text{U}$ 56'04	
conjunction	-2944 Jun 08 j 07:10	22° $\text{U}$ 05'13	0°-44'-14		-2938 Jun 01 j 20:00	0° $\text{U}$	
minimum elong	-2944 Jun 08 j 07:12	22° $\text{U}$ 05'13	0°44'10	evening set	-2938 Aug 08 j 22:12	6° $\text{U}$ 18'02	
max. Earth dist.	-2944 Jun 08 j 21:50	22° $\text{U}$ 09'55	10.13530 AU				
morning rise	-2944 Jun 26 j 07:32	24° $\text{U}$ 23'19		conjunction	-2938 Aug 25 j 21:57	8° $\text{U}$ 18'18	2°01'54
	-2944 Aug 16 j 12:00	0° $\text{II}$		minimum elong	-2938 Aug 25 j 21:54	8° $\text{U}$ 18'17	2°01'58
retrograde	-2944 Oct 06 j 19:33	2° $\text{II}$ 19'29		max. Earth dist.	-2938 Aug 25 j 21:59	8° $\text{U}$ 18'18	10.92649 AU
	-2944 Nov 28 j 11:46	30° $\text{R}$ $\text{U}$		morning rise	-2938 Sep 11 j 16:58	10° $\text{U}$ 17'11	
opposition	-2944 Dec 12 j 06:43	28° $\text{U}$ 53'46	0°-34'-44		-2938 Oct 27 j 21:22	15° $\text{U}$	
min. Earth dist.	-2944 Dec 11 j 20:36	28° $\text{U}$ 55'50	8.19513 AU	retrograde	-2938 Dec 19 j 10:15	17° $\text{U}$ 15'26	



## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 39

Attention, astronomical year style is used: The year -2937 in astronomical counting style is the year 2938 BCE in historical counting style.

	-2937 Feb 12 j 08:21	15° $\mathbb{R}$ $\Omega$		min. Earth dist.	-2931 May 06 j 21:08	20° $\mathbb{A}$ 39'31	9.14308 AU
opposition	-2937 Feb 26 j 07:17	13° $\mathbb{Q}$ 58'12	2°37'35	direct	-2931 Jul 16 j 12:57	17° $\mathbb{A}$ 23'16	
min. Earth dist.	-2937 Feb 26 j 08:31	13° $\mathbb{Q}$ 57'58	8.98021 AU	evening set	-2931 Oct 24 j 22:51	24° $\mathbb{A}$ 18'54	
direct	-2937 May 08 j 15:43	10° $\mathbb{Q}$ 35'21					
	-2937 Jul 25 j 21:15	15° $\mathbb{Q}$		conjunction	-2931 Nov 10 j 09:42	26° $\mathbb{A}$ 13'51	1°40'18
evening set	-2937 Aug 20 j 19:57	17° $\mathbb{Q}$ 49'54		minimum elong	-2931 Nov 10 j 09:45	26° $\mathbb{A}$ 13'52	1°40'16
				max. Earth dist.	-2931 Nov 09 j 22:13	26° $\mathbb{A}$ 10'29	11.11311 AU
conjunction	-2937 Sep 06 j 15:06	19° $\mathbb{Q}$ 47'44	2°14'46	morning rise	-2931 Nov 26 j 21:06	28° $\mathbb{A}$ 09'05	
minimum elong	-2937 Sep 06 j 15:04	19° $\mathbb{Q}$ 47'43	2°14'50		-2931 Dec 13 j 11:38	0° $\mathbb{M}$	
max. Earth dist.	-2937 Sep 06 j 12:02	19° $\mathbb{Q}$ 46'50	11.02644 AU	retrograde	-2930 Mar 08 j 10:04	5° $\mathbb{M}$ 10'22	
morning rise	-2937 Sep 23 j 06:13	21° $\mathbb{Q}$ 44'23		opposition	-2930 May 18 j 11:32	1° $\mathbb{M}$ 51'55	1°49'23
retrograde	-2937 Dec 30 j 23:06	28° $\mathbb{Q}$ 38'07		min. Earth dist.	-2930 May 18 j 21:48	1° $\mathbb{M}$ 50'01	9.07875 AU
opposition	-2936 Mar 09 j 07:31	25° $\mathbb{Q}$ 21'29	2°49'44		-2930 Jun 14 j 11:09	30° $\mathbb{R}$ $\mathbb{A}$	
min. Earth dist.	-2936 Mar 09 j 10:26	25° $\mathbb{Q}$ 20'57	9.07024 AU	direct	-2930 Jul 28 j 01:19	28° $\mathbb{A}$ 34'01	
direct	-2936 May 19 j 23:03	21° $\mathbb{Q}$ 59'45			-2930 Sep 08 j 08:16	0° $\mathbb{M}$	
evening set	-2936 Aug 31 j 09:53	29° $\mathbb{Q}$ 07'54		evening set	-2930 Nov 05 j 03:01	5° $\mathbb{M}$ 31'33	
	-2936 Sep 07 j 22:34	0° $\mathbb{M}$					
				conjunction	-2930 Nov 21 j 15:20	7° $\mathbb{M}$ 27'52	1°18'11
conjunction	-2936 Sep 17 j 01:20	1° $\mathbb{M}$ 03'51	2°22'09	minimum elong	-2930 Nov 21 j 15:23	7° $\mathbb{M}$ 27'53	1°18'08
minimum elong	-2936 Sep 17 j 01:20	1° $\mathbb{M}$ 03'51	2°22'12	max. Earth dist.	-2930 Nov 21 j 02:33	7° $\mathbb{M}$ 24'06	11.03737 AU
max. Earth dist.	-2936 Sep 16 j 20:33	1° $\mathbb{M}$ 02'27	11.10484 AU	morning rise	-2930 Dec 08 j 05:21	9° $\mathbb{M}$ 24'45	
morning rise	-2936 Oct 03 j 13:15	2° $\mathbb{M}$ 58'49			-2929 Feb 04 j 04:39	15° $\mathbb{M}$	
retrograde	-2935 Jan 10 j 10:38	9° $\mathbb{M}$ 49'41		retrograde	-2929 Mar 20 j 13:35	16° $\mathbb{M}$ 32'54	
opposition	-2935 Mar 21 j 04:46	6° $\mathbb{M}$ 33'24	2°55'13		-2929 May 05 j 05:51	15° $\mathbb{R}$ $\mathbb{M}$	
min. Earth dist.	-2935 Mar 21 j 09:03	6° $\mathbb{M}$ 32'36	9.13712 AU	opposition	-2929 May 30 j 15:32	13° $\mathbb{M}$ 13'18	1°20'14
direct	-2935 May 31 j 22:29	3° $\mathbb{M}$ 12'44		min. Earth dist.	-2929 May 31 j 02:40	13° $\mathbb{M}$ 11'14	8.99108 AU
evening set	-2935 Sep 11 j 17:44	10° $\mathbb{M}$ 15'39		direct	-2929 Aug 08 j 18:16	9° $\mathbb{M}$ 55'15	
					-2929 Oct 30 j 08:21	15° $\mathbb{M}$	
conjunction	-2935 Sep 28 j 06:25	12° $\mathbb{M}$ 10'16	2°24'03	evening set	-2929 Nov 16 j 12:00	16° $\mathbb{M}$ 56'16	
minimum elong	-2935 Sep 28 j 06:25	12° $\mathbb{M}$ 10'16	2°24'05				
max. Earth dist.	-2935 Sep 28 j 00:09	12° $\mathbb{M}$ 08'27	11.15912 AU	conjunction	-2929 Dec 03 j 02:29	18° $\mathbb{M}$ 54'26	0°52'36
morning rise	-2935 Oct 14 j 16:08	14° $\mathbb{M}$ 04'08		minimum elong	-2929 Dec 03 j 02:31	18° $\mathbb{M}$ 54'26	0°52'33
retrograde	-2934 Jan 21 j 20:45	20° $\mathbb{M}$ 53'48		max. Earth dist.	-2929 Dec 02 j 13:47	18° $\mathbb{M}$ 50'38	10.93969 AU
opposition	-2934 Apr 02 j 00:14	17° $\mathbb{M}$ 37'36	2°54'08	morning rise	-2929 Dec 19 j 19:36	20° $\mathbb{M}$ 53'25	
min. Earth dist.	-2934 Apr 02 j 06:40	17° $\mathbb{M}$ 36'26	9.17880 AU	retrograde	-2928 Apr 01 j 00:46	28° $\mathbb{M}$ 09'54	
direct	-2934 Jun 12 j 16:46	14° $\mathbb{M}$ 17'52		opposition	-2928 Jun 11 j 00:47	24° $\mathbb{M}$ 48'57	0°47'12
evening set	-2934 Sep 22 j 21:07	21° $\mathbb{M}$ 16'51		min. Earth dist.	-2928 Jun 11 j 11:26	24° $\mathbb{M}$ 46'57	8.88313 AU
				direct	-2928 Aug 19 j 14:21	21° $\mathbb{M}$ 30'31	
conjunction	-2934 Oct 09 j 07:52	23° $\mathbb{M}$ 10'43	2°20'34	evening set	-2928 Nov 27 j 03:34	28° $\mathbb{M}$ 36'34	
minimum elong	-2934 Oct 09 j 07:53	23° $\mathbb{M}$ 10'44	2°20'35		-2928 Dec 08 j 18:34	0° $\mathbb{A}$	
max. Earth dist.	-2934 Oct 08 j 23:07	23° $\mathbb{M}$ 08'11	11.18765 AU				
morning rise	-2934 Oct 25 j 16:39	25° $\mathbb{M}$ 04'04		conjunction	-2928 Dec 13 j 20:51	0° $\mathbb{A}$ 36'56	0°24'20
	-2934 Dec 15 j 03:21	0° $\mathbb{A}$		minimum elong	-2928 Dec 13 j 20:52	0° $\mathbb{A}$ 36'57	0°24'16
retrograde	-2933 Feb 02 j 06:58	1° $\mathbb{A}$ 54'11		max. Earth dist.	-2928 Dec 13 j 09:32	0° $\mathbb{A}$ 33'32	10.82339 AU
	-2933 Mar 25 j 10:49	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-2928 Dec 30 j 17:22	2° $\mathbb{A}$ 38'23	
opposition	-2933 Apr 13 j 19:02	28° $\mathbb{M}$ 37'50	2°46'41	retrograde	-2927 Apr 13 j 20:08	10° $\mathbb{A}$ 04'37	
min. Earth dist.	-2933 Apr 14 j 03:37	28° $\mathbb{M}$ 36'16	9.19391 AU	opposition	-2927 Jun 23 j 16:00	6° $\mathbb{A}$ 42'06	0°11'17
direct	-2933 Jun 24 j 08:23	25° $\mathbb{M}$ 18'51		min. Earth dist.	-2927 Jun 24 j 01:14	6° $\mathbb{A}$ 40'22	8.75873 AU
	-2933 Sep 13 j 05:48	0° $\mathbb{A}$		direct	-2927 Aug 31 j 16:15	3° $\mathbb{A}$ 23'03	
evening set	-2933 Oct 03 j 21:56	2° $\mathbb{A}$ 15'17		desc. node	-2927 Oct 16 j 10:35	5° $\mathbb{A}$ 08'47	
				evening set	-2927 Dec 09 j 03:57	10° $\mathbb{A}$ 35'42	
conjunction	-2933 Oct 20 j 07:44	4° $\mathbb{A}$ 08'58	2°11'55				
minimum elong	-2933 Oct 20 j 07:46	4° $\mathbb{A}$ 08'59	2°11'54	conjunction	-2927 Dec 26 j 00:19	12° $\mathbb{A}$ 38'38	0°-5'-44
max. Earth dist.	-2933 Oct 19 j 20:57	4° $\mathbb{A}$ 05'50	11.18944 AU	minimum elong	-2927 Dec 26 j 00:18	12° $\mathbb{A}$ 38'38	0°05'50
morning rise	-2933 Nov 05 j 16:34	6° $\mathbb{A}$ 02'24		behind sun begin	-2927 Dec 25 j 17:33	12° $\mathbb{A}$ 36'35	
retrograde	-2932 Feb 13 j 18:45	12° $\mathbb{A}$ 54'37		behind sun end	-2927 Dec 26 j 07:03	12° $\mathbb{A}$ 40'41	
opposition	-2932 Apr 24 j 14:16	9° $\mathbb{A}$ 37'49	2°33'08	max. Earth dist.	-2927 Dec 25 j 14:13	12° $\mathbb{A}$ 35'34	10.69263 AU
min. Earth dist.	-2932 Apr 24 j 23:49	9° $\mathbb{A}$ 36'04	9.18189 AU	morning rise	-2926 Jan 12 j 00:32	14° $\mathbb{A}$ 42'51	
direct	-2932 Jul 04 j 22:45	6° $\mathbb{A}$ 19'24		retrograde	-2926 Apr 27 j 02:15	22° $\mathbb{A}$ 19'51	
evening set	-2932 Oct 13 j 21:53	13° $\mathbb{A}$ 14'44		opposition	-2926 Jul 06 j 13:49	18° $\mathbb{A}$ 55'43	0°-26'-13
				min. Earth dist.	-2926 Jul 06 j 21:33	18° $\mathbb{A}$ 54'14	8.62247 AU
conjunction	-2932 Oct 30 j 07:50	15° $\mathbb{A}$ 08'47	1°58'22	direct	-2926 Sep 12 j 23:15	15° $\mathbb{A}$ 35'45	
minimum elong	-2932 Oct 30 j 07:52	15° $\mathbb{A}$ 08'48	1°58'20	evening set	-2926 Dec 21 j 14:39	22° $\mathbb{A}$ 56'31	
max. Earth dist.	-2932 Oct 29 j 20:48	15° $\mathbb{A}$ 05'34	11.16436 AU				
morning rise	-2932 Nov 15 j 17:29	17° $\mathbb{A}$ 02'50		conjunction	-2925 Jan 07 j 14:13	25° $\mathbb{A}$ 02'15	0°-36'-13
retrograde	-2931 Feb 24 j 13:08	23° $\mathbb{A}$ 58'48		minimum elong	-2925 Jan 07 j 14:11	25° $\mathbb{A}$ 02'14	0°36'20
opposition	-2931 May 06 j 11:25	20° $\mathbb{A}$ 41'17	2°13'53	max. Earth dist.	-2925 Jan 07 j 04:37	24° $\mathbb{A}$ 59'16	10.55231 AU

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 40

Attention, astronomical year style is used: The year -2925 in astronomical counting style is the year 2926 BCE in historical counting style.

morning rise	-2925 Jan 24 j 18:24	27° $\mathbb{X}$ 09'28		conjunction	-2919 Apr 01 j 18:25	17° $\mathbb{X}$ 45'00	-2°-20'-38
	-2925 Feb 18 j 06:39	0° $\mathbb{Z}$		minimum elong	-2919 Apr 01 j 18:26	17° $\mathbb{X}$ 45'00	2°20'40
retrograde	-2925 May 10 j 17:53	4° $\mathbb{Z}$ 58'02		max. Earth dist.	-2919 Apr 02 j 03:04	17° $\mathbb{X}$ 47'52	9.90115 AU
opposition	-2925 Jul 19 j 19:11	1° $\mathbb{Z}$ 32'16	-1°-3'-45	morning rise	-2919 Apr 19 j 19:24	20° $\mathbb{X}$ 07'35	
min. Earth dist.	-2925 Jul 20 j 01:54	1° $\mathbb{Z}$ 30'57	8.47951 AU	retrograde	-2919 Aug 05 j 00:00	28° $\mathbb{X}$ 42'08	
	-2925 Aug 09 j 08:22	30° $\mathbb{R}$ $\mathbb{X}$		opposition	-2919 Oct 10 j 22:24	25° $\mathbb{X}$ 10'46	-2°-51'-51
direct	-2925 Sep 25 j 12:42	28° $\mathbb{X}$ 11'09		min. Earth dist.	-2919 Oct 10 j 14:44	25° $\mathbb{X}$ 12'22	7.89312 AU
	-2925 Nov 10 j 03:34	0° $\mathbb{Z}$		direct	-2919 Dec 15 j 21:59	21° $\mathbb{X}$ 41'40	
evening set	-2924 Jan 03 j 12:50	5° $\mathbb{Z}$ 41'24			-2918 Mar 29 j 19:06	0° $\mathbb{Y}$	
				evening set	-2918 Mar 30 j 09:12	0° $\mathbb{Y}$ 04'34	
conjunction	-2924 Jan 20 j 15:51	7° $\mathbb{Z}$ 50'06	-1°-5'-50	conjunction	-2918 Apr 17 j 10:25	2° $\mathbb{Y}$ 27'14	-2°-11'-27
minimum elong	-2924 Jan 20 j 15:48	7° $\mathbb{Z}$ 50'06	1°05'57	minimum elong	-2918 Apr 17 j 10:27	2° $\mathbb{Y}$ 27'15	2°11'28
max. Earth dist.	-2924 Jan 20 j 07:34	7° $\mathbb{Z}$ 47'30	10.40801 AU	max. Earth dist.	-2918 Apr 17 j 21:26	2° $\mathbb{Y}$ 30'53	9.89040 AU
morning rise	-2924 Feb 07 j 00:01	10° $\mathbb{Z}$ 00'27		morning rise	-2918 May 05 j 13:24	4° $\mathbb{Y}$ 50'25	
retrograde	-2924 May 23 j 17:25	18° $\mathbb{Z}$ 00'59		retrograde	-2918 Aug 19 j 22:04	13° $\mathbb{Y}$ 21'22	
opposition	-2924 Aug 01 j 08:20	14° $\mathbb{Z}$ 33'38	-1°-39'-21	opposition	-2918 Oct 25 j 12:53	9° $\mathbb{Y}$ 50'29	-2°-34'-51
min. Earth dist.	-2924 Aug 01 j 13:38	14° $\mathbb{Z}$ 32'35	8.33624 AU	min. Earth dist.	-2918 Oct 25 j 03:59	9° $\mathbb{Y}$ 52'21	7.90071 AU
direct	-2924 Oct 07 j 12:47	11° $\mathbb{Z}$ 11'13		direct	-2918 Dec 30 j 18:39	6° $\mathbb{Y}$ 20'35	
evening set	-2923 Jan 15 j 23:53	18° $\mathbb{Z}$ 52'01		evening set	-2917 Apr 14 j 23:01	14° $\mathbb{Y}$ 44'39	
conjunction	-2923 Feb 02 j 06:38	21° $\mathbb{Z}$ 03'48	-1°-32'-54	conjunction	-2917 May 03 j 02:33	17° $\mathbb{Y}$ 07'27	-1°-53'-48
minimum elong	-2923 Feb 02 j 06:35	21° $\mathbb{Z}$ 03'46	1°33'00	minimum elong	-2917 May 03 j 02:37	17° $\mathbb{Y}$ 07'28	1°53'47
max. Earth dist.	-2923 Feb 02 j 00:59	21° $\mathbb{Z}$ 01'59	10.26704 AU	max. Earth dist.	-2917 May 03 j 15:10	17° $\mathbb{Y}$ 11'37	9.91690 AU
morning rise	-2923 Feb 19 j 18:40	23° $\mathbb{Z}$ 17'15		morning rise	-2917 May 21 j 06:33	19° $\mathbb{Y}$ 30'19	
	-2923 Apr 26 j 03:03	0° $\mathbb{X}$		retrograde	-2917 Sep 03 j 14:07	27° $\mathbb{Y}$ 54'05	
retrograde	-2923 Jun 07 j 02:29	1° $\mathbb{X}$ 29'19		opposition	-2917 Nov 09 j 00:28	24° $\mathbb{Y}$ 24'07	-2°-7'-57
	-2923 Jul 19 j 16:35	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	-2917 Nov 08 j 14:38	24° $\mathbb{Y}$ 26'10	7.94457 AU
opposition	-2923 Aug 15 j 05:00	28° $\mathbb{Z}$ 00'32	-2°-10'-49	direct	-2916 Jan 14 j 16:17	20° $\mathbb{Y}$ 53'45	
min. Earth dist.	-2923 Aug 15 j 08:06	27° $\mathbb{Z}$ 59'54	8.20080 AU	evening set	-2916 Apr 29 j 10:04	29° $\mathbb{Y}$ 15'51	
direct	-2923 Oct 20 j 22:05	24° $\mathbb{Z}$ 36'42			-2916 May 05 j 02:58	0° $\mathbb{X}$	
	-2922 Jan 09 j 18:39	0° $\mathbb{X}$		conjunction	-2916 May 17 j 14:44	1° $\mathbb{X}$ 37'52	-1°-29'-5
evening set	-2922 Jan 30 j 00:05	2° $\mathbb{X}$ 28'25		minimum elong	-2916 May 17 j 14:48	1° $\mathbb{X}$ 37'53	1°29'02
conjunction	-2922 Feb 16 j 10:45	4° $\mathbb{X}$ 43'12	-1°-55'-34	max. Earth dist.	-2916 May 18 j 04:16	1° $\mathbb{X}$ 42'18	9.97849 AU
minimum elong	-2922 Feb 16 j 10:42	4° $\mathbb{X}$ 43'11	1°55'40	morning rise	-2916 Jun 04 j 18:28	3° $\mathbb{X}$ 59'30	
max. Earth dist.	-2922 Feb 16 j 08:48	4° $\mathbb{X}$ 42'34	10.13802 AU	retrograde	-2916 Sep 16 j 22:05	12° $\mathbb{X}$ 13'19	
morning rise	-2922 Mar 06 j 02:24	6° $\mathbb{X}$ 59'38		opposition	-2916 Nov 22 j 07:11	8° $\mathbb{X}$ 44'38	-1°-33'-24
	-2922 Jun 01 j 15:16	15° $\mathbb{X}$		min. Earth dist.	-2916 Nov 21 j 20:39	8° $\mathbb{X}$ 46'49	8.02131 AU
retrograde	-2922 Jun 21 j 20:12	15° $\mathbb{X}$ 21'47		direct	-2915 Jan 28 j 12:36	5° $\mathbb{X}$ 14'12	
	-2922 Jul 12 j 03:35	15° $\mathbb{R}$ $\mathbb{X}$		evening set	-2915 May 14 j 15:08	13° $\mathbb{X}$ 31'35	
opposition	-2922 Aug 29 j 08:38	11° $\mathbb{X}$ 51'47	-2°-35'-46		-2915 May 26 j 03:05	15° $\mathbb{X}$	
min. Earth dist.	-2922 Aug 29 j 08:42	11° $\mathbb{X}$ 51'46	8.08170 AU	conjunction	-2915 Jun 01 j 19:25	15° $\mathbb{X}$ 51'54	0°-59'-16
direct	-2922 Nov 03 j 15:46	8° $\mathbb{X}$ 26'30		minimum elong	-2915 Jun 01 j 19:28	15° $\mathbb{X}$ 51'55	0°59'12
	-2921 Feb 01 j 19:13	15° $\mathbb{X}$		max. Earth dist.	-2915 Jun 02 j 09:12	15° $\mathbb{X}$ 56'22	10.07048 AU
evening set	-2921 Feb 13 j 12:44	16° $\mathbb{X}$ 28'42		morning rise	-2915 Jun 19 j 21:21	18° $\mathbb{X}$ 11'24	
conjunction	-2921 Mar 03 j 03:17	18° $\mathbb{X}$ 46'14	-2°-12'-2	retrograde	-2915 Sep 30 j 20:07	26° $\mathbb{X}$ 13'36	
minimum elong	-2921 Mar 03 j 03:15	18° $\mathbb{X}$ 46'13	2°12'07	opposition	-2915 Dec 06 j 07:29	22° $\mathbb{X}$ 46'28	0°-54'00
max. Earth dist.	-2921 Mar 03 j 05:14	18° $\mathbb{X}$ 46'52	10.02935 AU	min. Earth dist.	-2915 Dec 05 j 20:39	22° $\mathbb{X}$ 48'42	8.12561 AU
morning rise	-2921 Mar 20 j 22:20	21° $\mathbb{X}$ 05'17		direct	-2914 Feb 12 j 04:41	19° $\mathbb{X}$ 16'23	
retrograde	-2921 Jul 06 j 19:48	29° $\mathbb{X}$ 35'07		evening set	-2914 May 29 j 11:26	27° $\mathbb{X}$ 26'53	
opposition	-2921 Sep 12 j 18:01	26° $\mathbb{X}$ 04'13	-2°-51'-58	conjunction	-2914 Jun 16 j 13:45	29° $\mathbb{X}$ 44'43	0°-26'-36
min. Earth dist.	-2921 Sep 12 j 14:52	26° $\mathbb{X}$ 04'52	7.98675 AU	minimum elong	-2914 Jun 16 j 13:46	29° $\mathbb{X}$ 44'44	0°26'32
direct	-2921 Nov 17 j 18:08	22° $\mathbb{X}$ 37'31		max. Earth dist.	-2914 Jun 17 j 03:12	29° $\mathbb{X}$ 49'01	10.18669 AU
	-2920 Feb 22 j 03:40	0° $\mathbb{X}$			-2914 Jun 18 j 13:32	0° $\mathbb{II}$	
evening set	-2920 Feb 28 j 12:24	0° $\mathbb{X}$ 48'58		morning rise	-2914 Jul 04 j 12:27	2° $\mathbb{II}$ 01'24	
conjunction	-2920 Mar 17 j 06:48	3° $\mathbb{X}$ 08'51	-2°-20'-44	retrograde	-2914 Oct 14 j 08:35	9° $\mathbb{II}$ 51'21	
minimum elong	-2920 Mar 17 j 06:47	3° $\mathbb{X}$ 08'50	2°20'48	opposition	-2914 Dec 20 j 00:38	6° $\mathbb{II}$ 25'57	0°-12'-36
max. Earth dist.	-2920 Mar 17 j 12:20	3° $\mathbb{X}$ 10'40	9.94853 AU	min. Earth dist.	-2914 Dec 19 j 14:06	6° $\mathbb{II}$ 28'05	8.25082 AU
morning rise	-2920 Apr 04 j 05:01	5° $\mathbb{X}$ 30'00		direct	-2913 Feb 26 j 13:24	2° $\mathbb{II}$ 56'32	
retrograde	-2920 Jul 20 j 22:23	14° $\mathbb{X}$ 04'09		asc. node	-2913 Apr 14 j 15:21	4° $\mathbb{II}$ 48'21	
opposition	-2920 Sep 26 j 07:18	10° $\mathbb{X}$ 32'46	-2°-57'-37	evening set	-2913 Jun 12 j 21:01	10° $\mathbb{II}$ 58'40	
min. Earth dist.	-2920 Sep 26 j 01:33	10° $\mathbb{X}$ 33'58	7.92244 AU	conjunction	-2913 Jun 30 j 19:57	13° $\mathbb{II}$ 13'29	0°06'47
direct	-2920 Dec 01 j 05:00	7° $\mathbb{X}$ 04'46		minimum elong	-2913 Jun 30 j 19:57	13° $\mathbb{II}$ 13'29	0°06'53
evening set	-2919 Mar 14 j 20:20	15° $\mathbb{X}$ 23'21					

## Planetary Phenomena of Saturn from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 41

Attention, astronomical year style is used: The year -2913 in astronomical counting style is the year 2914 BCE in historical counting style.

behind sun begin	-2913 Jun 30 j 13:12	13° $\Pi$ 11'23	10.31987 AU	conjunction	-2907 Sep 12 j 05:24	26° $\Omega$ 08'22	2°19'19
behind sun end	-2913 Jul 01 j 02:42	13° $\Pi$ 15'35		minimum elong	-2907 Sep 12 j 05:22	26° $\Omega$ 08'22	2°19'22
max. Earth dist.	-2913 Jul 01 j 08:28	13° $\Pi$ 17'25	10.31987 AU	max. Earth dist.	-2907 Sep 12 j 02:25	26° $\Omega$ 07'30	11.07887 AU
morning rise	-2913 Jul 18 j 14:18	15° $\Pi$ 26'52		morning rise	-2907 Sep 28 j 18:36	28° $\Omega$ 04'01	
retrograde	-2913 Oct 27 j 12:08	23° $\Pi$ 04'44			-2907 Oct 16 j 04:30	0° $\mathbb{M}$	
opposition	-2912 Jan 02 j 10:09	19° $\Pi$ 41'09	0°28'09	retrograde	-2906 Jan 05 j 14:39	4° $\mathbb{M}$ 56'05	
min. Earth dist.	-2912 Jan 02 j 01:06	19° $\Pi$ 42'58	8.38948 AU	opposition	-2906 Mar 16 j 03:29	1° $\mathbb{M}$ 40'11	2°53'21
direct	-2912 Mar 11 j 13:56	16° $\Pi$ 12'42		min. Earth dist.	-2906 Mar 16 j 07:30	1° $\mathbb{M}$ 39'26	9.11790 AU
evening set	-2912 Jun 25 j 19:16	24° $\Pi$ 05'44			-2906 Apr 08 j 20:09	30° $\mathbb{R}$ $\Omega$	
				direct	-2906 May 26 j 18:07	28° $\Omega$ 19'33	
conjunction	-2912 Jul 13 j 13:37	26° $\Pi$ 17'11	0°38'50		-2906 Jul 12 j 11:50	0° $\mathbb{M}$	
minimum elong	-2912 Jul 13 j 13:35	26° $\Pi$ 17'11	0°38'55	evening set	-2906 Sep 06 j 23:16	5° $\mathbb{M}$ 24'50	
max. Earth dist.	-2912 Jul 13 j 23:57	26° $\Pi$ 20'23	10.46236 AU				
morning rise	-2912 Jul 31 j 02:51	28° $\Pi$ 27'04		conjunction	-2906 Sep 23 j 13:00	7° $\mathbb{M}$ 19'58	2°23'44
	-2912 Aug 13 j 03:44	0° $\mathbb{S}$		minimum elong	-2906 Sep 23 j 13:00	7° $\mathbb{M}$ 19'58	2°23'46
retrograde	-2912 Nov 08 j 05:52	5° $\mathbb{S}$ 53'38		max. Earth dist.	-2906 Sep 23 j 06:46	7° $\mathbb{M}$ 18'09	11.14679 AU
opposition	-2911 Jan 14 j 12:03	2° $\mathbb{S}$ 31'52	1°06'08	morning rise	-2906 Oct 09 j 23:45	9° $\mathbb{M}$ 14'15	
min. Earth dist.	-2911 Jan 14 j 05:09	2° $\mathbb{S}$ 33'14	8.53404 AU	retrograde	-2905 Jan 17 j 00:06	16° $\mathbb{M}$ 04'17	
	-2911 Feb 19 j 17:45	30° $\mathbb{R}$ $\Pi$		opposition	-2905 Mar 27 j 23:45	12° $\mathbb{M}$ 48'37	2°55'15
direct	-2911 Mar 25 j 06:24	29° $\Pi$ 04'36		min. Earth dist.	-2905 Mar 28 j 05:39	12° $\mathbb{M}$ 47'32	9.17296 AU
	-2911 Apr 27 j 17:05	0° $\mathbb{S}$		direct	-2905 Jun 07 j 16:31	9° $\mathbb{M}$ 28'58	
evening set	-2911 Jul 09 j 05:41	6° $\mathbb{S}$ 48'19		evening set	-2905 Sep 18 j 04:54	16° $\mathbb{M}$ 29'42	
conjunction	-2911 Jul 26 j 18:40	8° $\mathbb{S}$ 56'17	1°08'06	conjunction	-2905 Oct 04 j 16:25	18° $\mathbb{M}$ 23'48	2°22'42
minimum elong	-2911 Jul 26 j 18:38	8° $\mathbb{S}$ 56'16	1°08'12	minimum elong	-2905 Oct 04 j 16:26	18° $\mathbb{M}$ 23'49	2°22'43
max. Earth dist.	-2911 Jul 27 j 01:55	8° $\mathbb{S}$ 58'30	10.60679 AU	max. Earth dist.	-2905 Oct 04 j 08:21	18° $\mathbb{M}$ 21'28	11.18791 AU
morning rise	-2911 Aug 13 j 02:29	11° $\mathbb{S}$ 02'40		morning rise	-2905 Oct 21 j 01:33	20° $\mathbb{M}$ 17'16	
retrograde	-2911 Nov 20 j 13:13	18° $\mathbb{S}$ 19'13		retrograde	-2904 Jan 28 j 12:13	27° $\mathbb{M}$ 06'59	
opposition	-2910 Jan 27 j 06:59	14° $\mathbb{S}$ 59'08	1°39'42	opposition	-2904 Apr 07 j 18:54	23° $\mathbb{M}$ 51'15	2°50'42
min. Earth dist.	-2910 Jan 27 j 02:03	15° $\mathbb{S}$ 00'05	8.67730 AU	min. Earth dist.	-2904 Apr 08 j 02:22	23° $\mathbb{M}$ 49'53	9.19983 AU
direct	-2910 Apr 07 j 16:10	11° $\mathbb{S}$ 33'12		direct	-2904 Jun 18 j 10:40	20° $\mathbb{M}$ 32'25	
evening set	-2910 Jul 22 j 04:18	19° $\mathbb{S}$ 07'45		evening set	-2904 Sep 28 j 07:00	27° $\mathbb{M}$ 29'57	
conjunction	-2910 Aug 08 j 11:46	21° $\mathbb{S}$ 12'22	1°33'26	conjunction	-2904 Oct 14 j 17:14	29° $\mathbb{M}$ 23'38	2°16'23
minimum elong	-2910 Aug 08 j 11:42	21° $\mathbb{S}$ 12'21	1°33'30	minimum elong	-2904 Oct 14 j 17:15	29° $\mathbb{M}$ 23'39	2°16'23
max. Earth dist.	-2910 Aug 08 j 16:01	21° $\mathbb{S}$ 13'39	10.74632 AU	max. Earth dist.	-2904 Oct 14 j 07:34	29° $\mathbb{M}$ 20'50	11.20035 AU
morning rise	-2910 Aug 25 j 14:12	23° $\mathbb{S}$ 15'27			-2904 Oct 19 j 22:25	0° $\mathbb{S}$	
	-2910 Nov 11 j 12:24	0° $\Omega$		morning rise	-2904 Oct 31 j 01:45	1° $\mathbb{S}$ 16'55	
retrograde	-2910 Dec 02 j 15:17	0° $\Omega$ 23'29		retrograde	-2903 Feb 07 j 23:43	8° $\mathbb{S}$ 08'02	
	-2910 Dec 23 j 23:51	30° $\mathbb{R}$ $\mathbb{S}$		opposition	-2903 Apr 19 j 14:18	4° $\mathbb{S}$ 51'55	2°39'55
opposition	-2909 Feb 08 j 19:22	27° $\mathbb{S}$ 04'51	2°07'44	min. Earth dist.	-2903 Apr 19 j 23:40	4° $\mathbb{S}$ 50'13	9.19760 AU
min. Earth dist.	-2909 Feb 08 j 15:55	27° $\mathbb{S}$ 05'31	8.81260 AU	direct	-2903 Jun 30 j 00:28	1° $\mathbb{S}$ 33'41	
direct	-2909 Apr 20 j 16:10	23° $\mathbb{S}$ 40'21		evening set	-2903 Oct 09 j 07:37	8° $\mathbb{S}$ 29'29	
	-2909 Jul 25 j 01:49	0° $\Omega$					
evening set	-2909 Aug 03 j 16:13	1° $\Omega$ 06'15		conjunction	-2903 Oct 25 j 17:23	10° $\mathbb{S}$ 23'18	2°05'03
				minimum elong	-2903 Oct 25 j 17:25	10° $\mathbb{S}$ 23'19	2°05'02
conjunction	-2909 Aug 20 j 18:25	3° $\Omega$ 07'49	1°54'01	max. Earth dist.	-2903 Oct 25 j 05:14	10° $\mathbb{S}$ 19'46	11.18414 AU
minimum elong	-2909 Aug 20 j 18:22	3° $\Omega$ 07'48	1°54'05	morning rise	-2903 Nov 11 j 02:31	12° $\mathbb{S}$ 17'00	
max. Earth dist.	-2909 Aug 20 j 20:32	3° $\Omega$ 08'27	10.87484 AU	retrograde	-2902 Feb 19 j 14:52	19° $\mathbb{S}$ 11'11	
morning rise	-2909 Sep 06 j 15:42	5° $\Omega$ 07'56		opposition	-2902 May 01 j 10:52	15° $\mathbb{S}$ 54'22	2°23'15
retrograde	-2909 Dec 14 j 11:12	12° $\Omega$ 09'00		min. Earth dist.	-2902 May 01 j 22:14	15° $\mathbb{S}$ 52'17	9.16703 AU
opposition	-2908 Feb 21 j 02:05	8° $\Omega$ 51'35	2°29'33	direct	-2902 Jul 11 j 14:43	12° $\mathbb{S}$ 36'25	
min. Earth dist.	-2908 Feb 21 j 00:35	8° $\Omega$ 51'52	8.93415 AU	evening set	-2902 Oct 20 j 08:20	19° $\mathbb{S}$ 31'58	
direct	-2908 May 02 j 07:19	5° $\Omega$ 28'29					
evening set	-2908 Aug 14 j 18:30	12° $\Omega$ 46'31		conjunction	-2902 Nov 05 j 18:35	21° $\mathbb{S}$ 26'28	1°49'00
				minimum elong	-2902 Nov 05 j 18:38	21° $\mathbb{S}$ 26'29	1°48'58
conjunction	-2908 Aug 31 j 15:52	14° $\Omega$ 45'26	2°09'23	max. Earth dist.	-2902 Nov 05 j 05:02	21° $\mathbb{S}$ 22'30	11.14040 AU
minimum elong	-2908 Aug 31 j 15:50	14° $\Omega$ 45'25	2°09'27	morning rise	-2902 Nov 22 j 05:15	23° $\mathbb{S}$ 21'08	
max. Earth dist.	-2908 Aug 31 j 15:56	14° $\Omega$ 45'27	10.98709 AU		-2901 Feb 11 j 02:09	0° $\mathbb{M}$	
	-2908 Sep 02 j 17:09	15° $\Omega$		retrograde	-2901 Mar 03 j 08:50	0° $\mathbb{M}$ 19'58	
morning rise	-2908 Sep 17 j 08:36	16° $\Omega$ 43'04			-2901 Mar 23 j 22:46	30° $\mathbb{R}$ $\mathbb{S}$	
retrograde	-2908 Dec 25 j 03:13	23° $\Omega$ 38'48		opposition	-2901 May 13 j 09:47	27° $\mathbb{S}$ 02'07	2°01'06
opposition	-2907 Mar 04 j 04:32	20° $\Omega$ 22'18	2°44'48	min. Earth dist.	-2901 May 13 j 21:47	26° $\mathbb{S}$ 59'56	9.10951 AU
min. Earth dist.	-2907 Mar 04 j 05:44	20° $\Omega$ 22'05	9.03721 AU	direct	-2901 Jul 23 j 04:47	23° $\mathbb{S}$ 44'13	
direct	-2907 May 14 j 16:14	17° $\Omega$ 00'31			-2901 Oct 25 j 11:20	0° $\mathbb{M}$	
evening set	-2907 Aug 26 j 12:18	24° $\Omega$ 11'37		evening set	-2901 Oct 31 j 11:02	0° $\mathbb{M}$ 41'00	

Attention, astronomical year style is used: The year -2901 in astronomical counting style is the year 2902 BCE in historical counting style.

conjunction	-2901 Nov 16 j 22:40	2° $\overline{\text{M}}$ 36'42	1°28'40
minimum elong	-2901 Nov 16 j 22:43	2° $\overline{\text{M}}$ 36'43	1°28'37
max. Earth dist.	-2901 Nov 16 j 09:19	2° $\overline{\text{M}}$ 32'46	11.07073 AU
morning rise	-2901 Dec 03 j 11:24	4° $\overline{\text{M}}$ 32'49	
retrograde	-2900 Mar 14 j 10:26	11° $\overline{\text{M}}$ 37'55	
opposition	-2900 May 24 j 12:09	8° $\overline{\text{M}}$ 18'46	1°34'00
min. Earth dist.	-2900 May 24 j 23:42	8° $\overline{\text{M}}$ 16'38	9.02717 AU
direct	-2900 Aug 02 j 21:47	5° $\overline{\text{M}}$ 00'39	
evening set	-2900 Nov 10 j 17:44	12° $\overline{\text{M}}$ 00'12	

conjunction	-2900 Nov 27 j 07:20	13° $\overline{\text{M}}$ 57'34	1°04'35
minimum elong	-2900 Nov 27 j 07:22	13° $\overline{\text{M}}$ 57'35	1°04'32
max. Earth dist.	-2900 Nov 26 j 18:09	13° $\overline{\text{M}}$ 53'39	10.97766 AU
	-2900 Dec 06 j 01:30	15° $\overline{\text{M}}$	
morning rise	-2900 Dec 13 j 22:51	15° $\overline{\text{M}}$ 55'38	

# Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 1

Attention, astronomical year style is used: The year -2900 in astronomical counting style is the year 2901 BCE in historical counting style.

retrograde	-2900 Mar 14 j 10:26	11° $\mathbb{M}$ 37'55		minimum elong	-2894 Jan 27 j 12:04	15° $\mathfrak{Z}$ 18'45	1°21'15
opposition	-2900 May 24 j 12:09	8° $\mathbb{M}$ 18'46	1°34'00	max. Earth dist.	-2894 Jan 27 j 06:26	15° $\mathfrak{Z}$ 16'58	10.30918 AU
min. Earth dist.	-2900 May 24 j 23:42	8° $\mathbb{M}$ 16'38	9.02717 AU	morning rise	-2894 Feb 13 j 22:22	17° $\mathfrak{Z}$ 31'04	
direct	-2900 Aug 02 j 21:47	5° $\mathbb{M}$ 00'39		retrograde	-2894 Jun 01 j 00:34	25° $\mathfrak{Z}$ 38'47	
evening set	-2900 Nov 10 j 17:44	12° $\mathbb{M}$ 00'12		opposition	-2894 Aug 09 j 08:23	22° $\mathfrak{Z}$ 09'56	-1°-57'-22
				min. Earth dist.	-2894 Aug 09 j 11:07	22° $\mathfrak{Z}$ 09'23	8.24119 AU
conjunction	-2900 Nov 27 j 07:20	13° $\mathbb{M}$ 57'34	1°04'35	direct	-2894 Oct 15 j 06:04	18° $\mathfrak{Z}$ 46'09	
minimum elong	-2900 Nov 27 j 07:22	13° $\mathbb{M}$ 57'35	1°04'32	evening set	-2893 Jan 24 j 01:27	26° $\mathfrak{Z}$ 33'36	
max. Earth dist.	-2900 Nov 26 j 18:09	13° $\mathbb{M}$ 53'39	10.97766 AU				
	-2900 Dec 06 j 01:30	15° $\mathbb{M}$		conjunction	-2893 Feb 10 j 10:18	28° $\mathfrak{Z}$ 47'16	-1°-46'-3
morning rise	-2900 Dec 13 j 22:51	15° $\mathbb{M}$ 55'38		minimum elong	-2893 Feb 10 j 10:15	28° $\mathfrak{Z}$ 47'15	1°46'08
retrograde	-2899 Mar 26 j 19:08	23° $\mathbb{M}$ 08'29		max. Earth dist.	-2893 Feb 10 j 07:07	28° $\mathfrak{Z}$ 46'14	10.17644 AU
opposition	-2899 Jun 05 j 19:11	19° $\mathbb{M}$ 47'50	1°02'38		-2893 Feb 19 j 20:03	0° $\approx$	
min. Earth dist.	-2899 Jun 06 j 06:22	19° $\mathbb{M}$ 45'45	8.92311 AU	morning rise	-2893 Feb 28 j 00:23	1° $\approx$ 02'36	
direct	-2899 Aug 14 j 15:22	16° $\mathbb{M}$ 29'15		retrograde	-2893 Jun 15 j 15:43	9° $\approx$ 21'06	
evening set	-2899 Nov 22 j 06:17	23° $\mathbb{M}$ 33'11		opposition	-2893 Aug 23 j 09:26	5° $\approx$ 51'03	-2°-25'-35
				min. Earth dist.	-2893 Aug 23 j 09:50	5° $\approx$ 50'58	8.11692 AU
conjunction	-2899 Dec 08 j 22:16	25° $\mathbb{M}$ 32'38	0°37'27	direct	-2893 Oct 28 j 19:30	2° $\approx$ 25'56	
minimum elong	-2899 Dec 08 j 22:18	25° $\mathbb{M}$ 32'38	0°37'22	evening set	-2892 Feb 07 j 08:43	10° $\approx$ 24'07	
max. Earth dist.	-2899 Dec 08 j 08:47	25° $\mathbb{M}$ 28'35	10.86464 AU				
morning rise	-2899 Dec 25 j 17:15	27° $\mathbb{M}$ 33'03		conjunction	-2892 Feb 24 j 21:23	12° $\approx$ 40'37	-2°-5'-31
	-2898 Jan 16 j 09:58	0° $\mathfrak{A}$		minimum elong	-2892 Feb 24 j 21:20	12° $\approx$ 40'36	2°05'36
retrograde	-2898 Apr 08 j 09:55	4° $\mathfrak{A}$ 55'06		max. Earth dist.	-2892 Feb 24 j 21:29	12° $\approx$ 40'39	10.06124 AU
opposition	-2898 Jun 18 j 07:48	1° $\mathfrak{A}$ 32'49	0°27'53	morning rise	-2892 Mar 13 j 15:06	14° $\approx$ 58'44	
min. Earth dist.	-2898 Jun 18 j 18:48	1° $\mathfrak{A}$ 30'45	8.80114 AU		-2892 Mar 13 j 19:04	15° $\approx$	
	-2898 Jul 09 j 16:30	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-2892 Jun 29 j 12:55	23° $\approx$ 26'04	
direct	-2898 Aug 26 j 13:57	28° $\mathbb{M}$ 13'30		opposition	-2892 Sep 05 j 16:52	19° $\approx$ 55'08	-2°-45'-57
	-2898 Oct 11 j 17:48	0° $\mathfrak{A}$		min. Earth dist.	-2892 Sep 05 j 14:55	19° $\approx$ 55'32	8.01400 AU
evening set	-2898 Dec 04 j 02:38	5° $\mathfrak{A}$ 23'29		direct	-2892 Nov 10 j 19:13	16° $\approx$ 28'44	
				evening set	-2891 Feb 21 j 03:58	24° $\approx$ 36'48	
conjunction	-2898 Dec 20 j 21:28	7° $\mathfrak{A}$ 25'23	0°08'08				
minimum elong	-2898 Dec 20 j 21:29	7° $\mathfrak{A}$ 25'24	0°08'02	conjunction	-2891 Mar 10 j 20:35	26° $\approx$ 55'49	-2°-17'-52
behind sun begin	-2898 Dec 20 j 15:11	7° $\mathfrak{A}$ 23'30		minimum elong	-2891 Mar 10 j 20:33	26° $\approx$ 55'49	2°17'55
behind sun end	-2898 Dec 21 j 03:46	7° $\mathfrak{A}$ 27'17		max. Earth dist.	-2891 Mar 11 j 00:36	26° $\approx$ 57'09	9.97104 AU
max. Earth dist.	-2898 Dec 20 j 08:39	7° $\mathfrak{A}$ 21'30	10.73574 AU	morning rise	-2891 Mar 28 j 17:39	29° $\approx$ 16'16	
morning rise	-2897 Jan 06 j 20:10	9° $\mathfrak{A}$ 28'30			-2891 Apr 03 j 10:09	0° $\mathfrak{H}$	
desc. node	-2897 Mar 31 j 12:44	16° $\mathfrak{A}$ 39'21		retrograde	-2891 Jul 14 j 13:56	7° $\mathfrak{H}$ 49'28	
retrograde	-2897 Apr 21 j 10:30	17° $\mathfrak{A}$ 01'00		opposition	-2891 Sep 20 j 04:59	4° $\mathfrak{H}$ 18'05	-2°-56'-28
opposition	-2897 Jul 01 j 02:44	13° $\mathfrak{A}$ 37'01	0°-9'-6	min. Earth dist.	-2891 Sep 20 j 00:20	4° $\mathfrak{H}$ 19'03	7.93926 AU
min. Earth dist.	-2897 Jul 01 j 12:49	13° $\mathfrak{A}$ 35'05	8.66595 AU	direct	-2891 Nov 25 j 03:53	0° $\mathfrak{H}$ 50'31	
direct	-2897 Sep 07 j 19:21	10° $\mathfrak{A}$ 16'47		evening set	-2890 Mar 08 j 08:55	9° $\mathfrak{H}$ 06'44	
evening set	-2897 Dec 16 j 08:27	17° $\mathfrak{A}$ 34'22					
				conjunction	-2890 Mar 26 j 05:23	11° $\mathfrak{H}$ 27'47	-2°-21'-45
conjunction	-2896 Jan 02 j 06:36	19° $\mathfrak{A}$ 39'01	0°-22'-24	minimum elong	-2890 Mar 26 j 05:24	11° $\mathfrak{H}$ 27'47	2°21'48
minimum elong	-2896 Jan 02 j 06:35	19° $\mathfrak{A}$ 39'01	0°22'31	max. Earth dist.	-2890 Mar 26 j 13:21	11° $\mathfrak{H}$ 30'25	9.91215 AU
max. Earth dist.	-2896 Jan 01 j 20:06	19° $\mathfrak{A}$ 35'47	10.59606 AU	morning rise	-2890 Apr 13 j 05:20	13° $\mathfrak{H}$ 49'56	
morning rise	-2896 Jan 19 j 09:04	21° $\mathfrak{A}$ 45'04		retrograde	-2890 Jul 29 j 15:56	22° $\mathfrak{H}$ 25'19	
retrograde	-2896 May 03 j 21:04	29° $\mathfrak{A}$ 29'02		opposition	-2890 Oct 04 j 20:00	18° $\mathfrak{H}$ 53'55	-2°-55'-47
opposition	-2896 Jul 13 j 04:59	26° $\mathfrak{A}$ 03'19	0°-46'-54	min. Earth dist.	-2890 Oct 04 j 12:35	18° $\mathfrak{H}$ 55'28	7.89801 AU
min. Earth dist.	-2896 Jul 13 j 12:51	26° $\mathfrak{A}$ 01'48	8.52317 AU	direct	-2890 Dec 09 j 18:25	15° $\mathfrak{H}$ 25'25	
direct	-2896 Sep 19 j 06:54	22° $\mathfrak{A}$ 42'02		evening set	-2889 Mar 23 j 20:15	23° $\mathfrak{H}$ 47'08	
	-2896 Dec 26 j 21:17	0° $\mathfrak{Z}$					
evening set	-2896 Dec 28 j 01:22	0° $\mathfrak{Z}$ 08'36		conjunction	-2889 Apr 10 j 20:14	26° $\mathfrak{H}$ 09'32	-2°-16'-34
				minimum elong	-2889 Apr 10 j 20:16	26° $\mathfrak{H}$ 09'33	2°16'35
conjunction	-2895 Jan 14 j 03:02	2° $\mathfrak{Z}$ 16'12	0°-52'-40	max. Earth dist.	-2889 Apr 11 j 07:52	26° $\mathfrak{H}$ 13'24	9.88902 AU
minimum elong	-2895 Jan 14 j 03:00	2° $\mathfrak{Z}$ 16'11	0°52'47	morning rise	-2889 Apr 28 j 22:27	28° $\mathfrak{H}$ 32'39	
max. Earth dist.	-2895 Jan 13 j 19:04	2° $\mathfrak{Z}$ 13'42	10.45158 AU		-2889 May 10 j 07:55	0° $\mathbb{Y}$	
morning rise	-2895 Jan 31 j 09:23	4° $\mathfrak{Z}$ 25'21		retrograde	-2889 Aug 13 j 16:48	7° $\mathbb{Y}$ 06'09	
retrograde	-2895 May 17 j 17:40	12° $\mathfrak{Z}$ 21'18		opposition	-2889 Oct 19 j 11:31	3° $\mathbb{Y}$ 35'13	-2°-43'-37
opposition	-2895 Jul 26 j 14:53	8° $\mathfrak{Z}$ 53'55	-1°-23'-42	min. Earth dist.	-2889 Oct 19 j 01:40	3° $\mathbb{Y}$ 37'16	7.89340 AU
min. Earth dist.	-2895 Jul 26 j 20:03	8° $\mathfrak{Z}$ 52'54	8.37917 AU	direct	-2889 Dec 24 j 13:22	0° $\mathbb{Y}$ 05'59	
direct	-2895 Oct 02 j 02:34	5° $\mathfrak{Z}$ 31'26		evening set	-2888 Apr 07 j 10:40	8° $\mathbb{Y}$ 30'10	
evening set	-2894 Jan 10 j 06:54	13° $\mathfrak{Z}$ 08'07					
				conjunction	-2888 Apr 25 j 13:27	10° $\mathbb{Y}$ 53'05	-2°-2'-30
conjunction	-2894 Jan 27 j 12:07	15° $\mathfrak{Z}$ 18'46	-1°-21'-8	minimum elong	-2888 Apr 25 j 13:30	10° $\mathbb{Y}$ 53'06	2°02'30

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 2

Attention, astronomical year style is used: The year -2888 in astronomical counting style is the year 2889 BCE in historical counting style.

max. Earth dist.	-2888 Apr 26 j 03:51	10°Υ57'51	9.90348 AU	opposition	-2882 Jan 09 j 04:57	27°Π12'21	0°49'57
morning rise	-2888 May 13 j 17:05	13°Υ16'14		min. Earth dist.	-2882 Jan 08 j 21:28	27°Π13'50	8.47642 AU
retrograde	-2888 Aug 27 j 13:22	21°Υ43'55		direct	-2882 Mar 19 j 17:32	23°Π44'56	
opposition	-2888 Nov 02 j 01:01	18°Υ13'51	-2°-20'-48		-2882 Jun 20 j 16:42	0°Ϸ	
min. Earth dist.	-2888 Nov 01 j 13:38	18°Υ16'14	7.92580 AU	evening set	-2882 Jul 03 j 19:28	1°Ϸ32'52	
direct	-2887 Jan 07 j 10:41	14°Υ44'11					
evening set	-2887 Apr 23 j 00:03	23°Υ07'36		conjunction	-2882 Jul 21 j 10:57	3°Ϸ42'23	0°55'43
				minimum elong	-2882 Jul 21 j 10:55	3°Ϸ42'22	0°55'48
conjunction	-2887 May 11 j 04:30	25°Υ30'04	-1°-40'-39	max. Earth dist.	-2882 Jul 21 j 18:28	3°Ϸ44'41	10.54728 AU
minimum elong	-2887 May 11 j 04:34	25°Υ30'05	1°40'38	morning rise	-2882 Aug 07 j 21:13	5°Ϸ50'18	
max. Earth dist.	-2887 May 11 j 20:19	25°Υ35'16	9.95426 AU	retrograde	-2882 Nov 15 j 15:18	13°Ϸ11'21	
morning rise	-2887 May 29 j 08:22	27°Υ52'19		opposition	-2881 Jan 22 j 03:11	9°Ϸ50'47	1°25'39
	-2887 Jun 15 j 08:47	0°Ϸ		min. Earth dist.	-2881 Jan 21 j 21:32	9°Ϸ51'53	8.61627 AU
retrograde	-2887 Sep 11 j 02:27	6°Ϸ10'56		direct	-2881 Apr 02 j 06:11	6°Ϸ24'29	
opposition	-2887 Nov 16 j 10:31	2°Ϸ42'07	-1°-49'-17	evening set	-2881 Jul 16 j 23:40	14°Ϸ03'16	
min. Earth dist.	-2887 Nov 15 j 22:49	2°Ϸ44'34	7.99262 AU				
	-2887 Dec 23 j 18:40	30°ϣΥ		conjunction	-2881 Aug 03 j 09:49	16°Ϸ09'24	1°22'55
direct	-2886 Jan 22 j 07:51	29°Υ12'18		minimum elong	-2881 Aug 03 j 09:45	16°Ϸ09'23	1°23'00
	-2886 Feb 20 j 21:09	0°Ϸ		max. Earth dist.	-2881 Aug 03 j 15:05	16°Ϸ11'01	10.68477 AU
evening set	-2886 May 08 j 08:32	7°Ϸ31'55		morning rise	-2881 Aug 20 j 14:32	18°Ϸ13'58	
				retrograde	-2881 Nov 27 j 21:13	25°Ϸ25'53	
conjunction	-2886 May 26 j 13:09	9°Ϸ53'00	-1°-12'-49	opposition	-2880 Feb 03 j 18:47	22°Ϸ06'43	1°56'16
minimum elong	-2886 May 26 j 13:12	9°Ϸ53'01	1°12'46	min. Earth dist.	-2880 Feb 03 j 15:45	22°Ϸ07'18	8.75073 AU
max. Earth dist.	-2886 May 27 j 04:49	9°Ϸ58'06	10.03718 AU	direct	-2880 Apr 14 j 09:20	18°Ϸ41'34	
morning rise	-2886 Jun 13 j 15:52	12°Ϸ13'26		evening set	-2880 Jul 28 j 16:50	26°Ϸ11'34	
	-2886 Jul 06 j 09:27	15°Ϸ					
retrograde	-2886 Sep 25 j 05:43	20°Ϸ20'49		conjunction	-2880 Aug 14 j 21:24	28°Ϸ14'33	1°45'41
opposition	-2886 Nov 30 j 14:07	16°Ϸ53'31	-1°-11'-40	minimum elong	-2880 Aug 14 j 21:21	28°Ϸ14'32	1°45'45
min. Earth dist.	-2886 Nov 30 j 03:02	16°Ϸ55'48	8.08853 AU	max. Earth dist.	-2880 Aug 14 j 23:32	28°Ϸ15'11	10.81369 AU
	-2886 Dec 24 j 21:59	15°ϣϷ			-2880 Aug 29 j 14:29	0°ϣ	
direct	-2885 Feb 06 j 02:27	13°Ϸ23'50		morning rise	-2880 Aug 31 j 20:52	0°ϣ16'01	
	-2885 Mar 20 j 23:17	15°Ϸ		retrograde	-2880 Dec 08 j 18:34	7°ϣ20'19	
evening set	-2885 May 23 j 09:10	21°Ϸ37'16		opposition	-2879 Feb 15 j 04:24	4°ϣ02'17	2°20'55
				min. Earth dist.	-2879 Feb 15 j 03:59	4°ϣ02'22	8.87401 AU
conjunction	-2885 Jun 10 j 12:25	23°Ϸ56'09	0°-41'-8	direct	-2879 Apr 27 j 05:25	0°ϣ38'20	
minimum elong	-2885 Jun 10 j 12:27	23°Ϸ56'10	0°41'04	evening set	-2879 Aug 09 j 23:37	8°ϣ00'11	
max. Earth dist.	-2885 Jun 11 j 02:28	24°Ϸ00'40	10.14552 AU				
morning rise	-2885 Jun 28 j 12:38	26°Ϸ14'02		conjunction	-2879 Aug 26 j 22:59	10°ϣ00'20	2°03'24
	-2885 Jul 30 j 14:19	0°Π		minimum elong	-2879 Aug 26 j 22:57	10°ϣ00'19	2°03'28
retrograde	-2885 Oct 08 j 21:40	4°Π09'10		max. Earth dist.	-2879 Aug 26 j 21:48	9°ϣ59'59	10.92888 AU
opposition	-2885 Dec 14 j 10:30	0°Π43'33	0°-30'-49	morning rise	-2879 Sep 12 j 17:50	11°ϣ59'08	
min. Earth dist.	-2885 Dec 14 j 00:44	0°Π45'33	8.20609 AU		-2879 Oct 10 j 06:54	15°ϣ	
	-2885 Dec 23 j 09:56	30°ϣϷ		retrograde	-2879 Dec 20 j 11:17	18°ϣ57'27	
direct	-2884 Feb 20 j 15:07	27°Ϸ14'20		opposition	-2878 Feb 27 j 08:58	15°ϣ40'16	2°39'06
	-2884 Apr 18 j 09:52	0°Π		min. Earth dist.	-2878 Feb 27 j 10:12	15°ϣ40'02	8.98121 AU
evening set	-2884 Jun 05 j 23:55	5°Π20'03			-2878 Mar 08 j 09:01	15°ϣϣ	
				direct	-2878 May 09 j 19:05	12°ϣ17'29	
conjunction	-2884 Jun 24 j 00:21	7°Π36'09	0°-7'-52		-2878 Jul 08 j 16:53	15°ϣ	
minimum elong	-2884 Jun 24 j 00:21	7°Π36'09	0°07'48	evening set	-2878 Aug 21 j 21:04	19°ϣ32'01	
behind sun begin	-2884 Jun 23 j 17:48	7°Π34'06					
behind sun end	-2884 Jun 24 j 06:54	7°Π38'12		conjunction	-2878 Sep 07 j 16:03	21°ϣ29'49	2°15'44
max. Earth dist.	-2884 Jun 24 j 11:53	7°Π39'47	10.27128 AU	minimum elong	-2878 Sep 07 j 16:01	21°ϣ29'48	2°15'48
morning rise	-2884 Jul 11 j 20:50	9°Π50'56		max. Earth dist.	-2878 Sep 07 j 12:56	21°ϣ28'54	11.02595 AU
asc. node	-2884 Sep 21 j 03:40	16°Π44'30		morning rise	-2878 Sep 24 j 06:55	23°ϣ26'26	
retrograde	-2884 Oct 21 j 04:43	17°Π33'54			-2878 Dec 11 j 23:25	0°ϣ	
opposition	-2884 Dec 26 j 23:28	14°Π10'04	0°10'30	retrograde	-2877 Jan 01 j 01:23	0°ϣ20'25	
min. Earth dist.	-2884 Dec 26 j 14:56	14°Π11'47	8.33758 AU		-2877 Jan 21 j 08:22	30°ϣϣ	
direct	-2883 Mar 05 j 20:21	10°Π41'38		opposition	-2877 Mar 11 j 09:24	27°ϣ03'47	2°50'36
evening set	-2883 Jun 20 j 03:33	18°Π38'42		min. Earth dist.	-2877 Mar 11 j 12:11	27°ϣ03'17	9.06827 AU
				direct	-2877 May 22 j 00:07	23°ϣ42'08	
conjunction	-2883 Jul 07 j 23:54	20°Π51'36	0°25'02		-2877 Aug 26 j 00:54	0°ϣ	
minimum elong	-2883 Jul 07 j 23:53	20°Π51'35	0°25'08	evening set	-2877 Sep 02 j 11:03	0°ϣ50'23	
max. Earth dist.	-2883 Jul 08 j 09:08	20°Π54'29	10.40732 AU				
morning rise	-2883 Jul 25 j 15:35	23°Π03'00		conjunction	-2877 Sep 19 j 02:25	2°ϣ46'21	2°22'34
	-2883 Oct 08 j 22:12	0°Ϸ		minimum elong	-2877 Sep 19 j 02:24	2°ϣ46'21	2°22'36
retrograde	-2883 Nov 03 j 02:24	0°Ϸ34'29		max. Earth dist.	-2877 Sep 18 j 21:45	2°ϣ44'59	11.10136 AU
	-2883 Nov 28 j 12:32	30°ϣΠ		morning rise	-2877 Oct 05 j 14:07	4°ϣ41'21	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 3

Attention, astronomical year style is used: The year -2876 in astronomical counting style is the year 2877 BCE in historical counting style.

retrograde	-2876 Jan 12 j 12:35	11° $\mathring{M}$ 32'37		min. Earth dist.	-2870 Jun 01 j 08:27	15° $\mathring{M}$ 03'23	8.97397 AU
opposition	-2876 Mar 22 j 06:54	8° $\mathring{M}$ 16'18	2°55'24		-2870 Jun 02 j 02:45	15° $\mathring{R}$ $\mathring{M}$	
min. Earth dist.	-2876 Mar 22 j 11:54	8° $\mathring{M}$ 15'23	9.13219 AU	direct	-2870 Aug 09 j 22:58	11° $\mathring{M}$ 47'14	
direct	-2876 Jun 01 j 23:42	4° $\mathring{M}$ 55'39			-2870 Oct 12 j 23:53	15° $\mathring{M}$	
evening set	-2876 Sep 12 j 19:07	11° $\mathring{M}$ 58'50		evening set	-2870 Nov 17 j 16:35	18° $\mathring{M}$ 49'06	
conjunction	-2876 Sep 29 j 07:37	13° $\mathring{M}$ 53'32	2°23'53	conjunction	-2870 Dec 04 j 07:29	20° $\mathring{M}$ 47'33	0°49'27
minimum elong	-2876 Sep 29 j 07:38	13° $\mathring{M}$ 53'32	2°23'55	minimum elong	-2870 Dec 04 j 07:30	20° $\mathring{M}$ 47'34	0°49'23
max. Earth dist.	-2876 Sep 29 j 00:27	13° $\mathring{M}$ 51'26	11.15274 AU	max. Earth dist.	-2870 Dec 03 j 19:43	20° $\mathring{M}$ 44'02	10.92231 AU
morning rise	-2876 Oct 15 j 17:21	15° $\mathring{M}$ 47'28		morning rise	-2870 Dec 21 j 00:52	22° $\mathring{M}$ 46'51	
retrograde	-2875 Jan 22 j 23:16	22° $\mathring{M}$ 37'40			-2869 Mar 24 j 17:11	0° $\mathring{Z}$	
opposition	-2875 Apr 03 j 02:52	19° $\mathring{M}$ 21'26	2°53'37	retrograde	-2869 Apr 03 j 07:31	0° $\mathring{Z}$ 04'34	
min. Earth dist.	-2875 Apr 03 j 10:11	19° $\mathring{M}$ 20'05	9.17105 AU		-2869 Apr 13 j 00:21	30° $\mathring{R}$ $\mathring{M}$	
direct	-2875 Jun 13 j 18:46	16° $\mathring{M}$ 01'40		opposition	-2869 Jun 13 j 07:26	26° $\mathring{M}$ 43'21	0°43'10
evening set	-2875 Sep 23 j 22:41	23° $\mathring{M}$ 01'01		min. Earth dist.	-2869 Jun 13 j 17:14	26° $\mathring{M}$ 41'31	8.86559 AU
				direct	-2869 Aug 21 j 20:14	23° $\mathring{M}$ 24'47	
conjunction	-2875 Oct 10 j 09:21	24° $\mathring{M}$ 55'00	2°19'50		-2869 Nov 24 j 21:14	0° $\mathring{Z}$	
minimum elong	-2875 Oct 10 j 09:22	24° $\mathring{M}$ 55'00	2°19'50	evening set	-2869 Nov 29 j 09:14	0° $\mathring{Z}$ 31'46	
max. Earth dist.	-2875 Oct 09 j 23:52	24° $\mathring{M}$ 52'15	11.17858 AU				
morning rise	-2875 Oct 26 j 18:15	26° $\mathring{M}$ 48'30		conjunction	-2869 Dec 16 j 02:51	2° $\mathring{Z}$ 32'27	0°20'55
	-2875 Nov 25 j 19:03	0° $\mathring{Z}$		minimum elong	-2869 Dec 16 j 02:51	2° $\mathring{Z}$ 32'28	0°20'50
retrograde	-2874 Feb 03 j 09:01	3° $\mathring{Z}$ 39'19		max. Earth dist.	-2869 Dec 15 j 16:08	2° $\mathring{Z}$ 29'13	10.80587 AU
opposition	-2874 Apr 14 j 22:09	0° $\mathring{Z}$ 22'50	2°45'28	morning rise	-2868 Jan 01 j 23:39	4° $\mathring{Z}$ 34'13	
min. Earth dist.	-2874 Apr 15 j 06:45	0° $\mathring{Z}$ 21'16	9.18357 AU	retrograde	-2868 Apr 15 j 06:06	12° $\mathring{Z}$ 01'41	
	-2874 Apr 20 j 03:20	30° $\mathring{R}$ $\mathring{M}$		opposition	-2868 Jun 24 j 23:33	8° $\mathring{Z}$ 38'58	0°06'59
direct	-2874 Jun 25 j 11:02	27° $\mathring{M}$ 03'48		min. Earth dist.	-2868 Jun 25 j 08:02	8° $\mathring{Z}$ 37'21	8.74149 AU
	-2874 Aug 27 j 00:35	0° $\mathring{Z}$		direct	-2868 Sep 01 j 22:07	5° $\mathring{Z}$ 19'46	
evening set	-2874 Oct 04 j 23:49	4° $\mathring{Z}$ 00'43		desc. node	-2868 Sep 03 j 17:59	5° $\mathring{Z}$ 19'56	
				evening set	-2868 Dec 10 j 10:46	12° $\mathring{Z}$ 33'23	
conjunction	-2874 Oct 21 j 09:47	5° $\mathring{Z}$ 54'34	2°10'37				
minimum elong	-2874 Oct 21 j 09:49	5° $\mathring{Z}$ 54'35	2°10'36	conjunction	-2868 Dec 27 j 07:19	14° $\mathring{Z}$ 36'38	0°-9'-16
max. Earth dist.	-2874 Oct 20 j 23:28	5° $\mathring{Z}$ 51'34	11.17794 AU	minimum elong	-2868 Dec 27 j 07:18	14° $\mathring{Z}$ 36'37	0°09'22
morning rise	-2874 Nov 06 j 18:41	7° $\mathring{Z}$ 48'10		behind sun begin	-2868 Dec 27 j 01:22	14° $\mathring{Z}$ 34'49	
retrograde	-2873 Feb 14 j 23:49	14° $\mathring{Z}$ 41'13		behind sun end	-2868 Dec 27 j 13:15	14° $\mathring{Z}$ 38'25	
opposition	-2873 Apr 26 j 17:51	11° $\mathring{Z}$ 24'15	2°31'16	max. Earth dist.	-2868 Dec 26 j 21:07	14° $\mathring{Z}$ 33'31	10.67591 AU
min. Earth dist.	-2873 Apr 27 j 02:52	11° $\mathring{Z}$ 22'36	9.16921 AU	morning rise	-2867 Jan 13 j 07:57	16° $\mathring{Z}$ 41'10	
direct	-2873 Jul 07 j 02:25	8° $\mathring{Z}$ 05'46		retrograde	-2867 Apr 28 j 11:58	24° $\mathring{Z}$ 19'23	
evening set	-2873 Oct 16 j 00:18	15° $\mathring{Z}$ 01'39		opposition	-2867 Jul 07 j 22:26	20° $\mathring{Z}$ 55'05	0°-30'-37
				min. Earth dist.	-2867 Jul 08 j 05:57	20° $\mathring{Z}$ 53'38	8.60657 AU
conjunction	-2873 Nov 01 j 10:26	16° $\mathring{Z}$ 55'56	1°56'32	direct	-2867 Sep 14 j 05:12	17° $\mathring{Z}$ 34'58	
minimum elong	-2873 Nov 01 j 10:29	16° $\mathring{Z}$ 55'56	1°56'30	evening set	-2867 Dec 22 j 22:35	24° $\mathring{Z}$ 56'44	
max. Earth dist.	-2873 Oct 31 j 23:35	16° $\mathring{Z}$ 52'45	11.15067 AU				
morning rise	-2873 Nov 17 j 20:14	18° $\mathring{Z}$ 50'12		conjunction	-2866 Jan 08 j 22:24	27° $\mathring{Z}$ 02'44	0°-39'-44
retrograde	-2872 Feb 26 j 17:10	25° $\mathring{Z}$ 47'04		minimum elong	-2866 Jan 08 j 22:22	27° $\mathring{Z}$ 02'44	0°39'50
opposition	-2872 May 07 j 15:41	22° $\mathring{Z}$ 29'23	2°11'22	max. Earth dist.	-2866 Jan 08 j 13:10	26° $\mathring{Z}$ 59'52	10.53752 AU
min. Earth dist.	-2872 May 08 j 01:35	22° $\mathring{Z}$ 27'35	9.12840 AU	morning rise	-2866 Jan 26 j 03:01	29° $\mathring{Z}$ 10'15	
direct	-2872 Jul 17 j 14:31	19° $\mathring{Z}$ 11'17			-2866 Feb 01 j 23:56	0° $\mathring{Z}$	
evening set	-2872 Oct 26 j 01:57	26° $\mathring{Z}$ 07'35		retrograde	-2866 May 12 j 02:40	6° $\mathring{Z}$ 59'56	
				opposition	-2866 Jul 21 j 04:36	3° $\mathring{Z}$ 34'00	-1°-8'00
conjunction	-2872 Nov 11 j 12:53	28° $\mathring{Z}$ 02'46	1°37'58	min. Earth dist.	-2866 Jul 21 j 11:10	3° $\mathring{Z}$ 32'44	8.46615 AU
minimum elong	-2872 Nov 11 j 12:56	28° $\mathring{Z}$ 02'47	1°37'55	direct	-2866 Sep 26 j 21:46	0° $\mathring{Z}$ 12'45	
max. Earth dist.	-2872 Nov 11 j 00:42	27° $\mathring{Z}$ 59'12	11.09768 AU	evening set	-2865 Jan 04 j 21:59	7° $\mathring{Z}$ 43'55	
morning rise	-2872 Nov 28 j 00:37	29° $\mathring{Z}$ 58'16					
	-2872 Nov 28 j 06:40	0° $\mathring{M}$		conjunction	-2865 Jan 22 j 01:19	9° $\mathring{Z}$ 52'52	-1°-9'-7
retrograde	-2871 Mar 09 j 15:23	7° $\mathring{M}$ 00'34		minimum elong	-2865 Jan 22 j 01:16	9° $\mathring{Z}$ 52'51	1°09'14
opposition	-2871 May 19 j 16:38	3° $\mathring{M}$ 41'56	1°46'16	max. Earth dist.	-2865 Jan 21 j 18:17	9° $\mathring{Z}$ 50'39	10.39614 AU
min. Earth dist.	-2871 May 20 j 03:29	3° $\mathring{M}$ 39'56	9.06258 AU	morning rise	-2865 Feb 08 j 09:45	12° $\mathring{Z}$ 03'27	
direct	-2871 Jul 29 j 05:49	0° $\mathring{M}$ 23'54		retrograde	-2865 May 26 j 03:29	20° $\mathring{Z}$ 04'51	
evening set	-2871 Nov 06 j 06:48	7° $\mathring{M}$ 22'12		opposition	-2865 Aug 03 j 18:15	16° $\mathring{Z}$ 37'22	-1°-43'-12
				min. Earth dist.	-2865 Aug 03 j 22:54	16° $\mathring{Z}$ 36'27	8.32613 AU
conjunction	-2871 Nov 22 j 19:20	9° $\mathring{M}$ 18'48	1°15'23	direct	-2865 Oct 09 j 22:35	13° $\mathring{Z}$ 14'50	
minimum elong	-2871 Nov 22 j 19:23	9° $\mathring{M}$ 18'49	1°15'21	evening set	-2864 Jan 18 j 10:01	20° $\mathring{Z}$ 56'22	
max. Earth dist.	-2871 Nov 22 j 06:32	9° $\mathring{M}$ 15'01	11.02073 AU				
morning rise	-2871 Dec 09 j 09:43	11° $\mathring{M}$ 15'59		conjunction	-2864 Feb 04 j 17:06	23° $\mathring{Z}$ 08'21	-1°-35'-44
	-2870 Jan 13 j 10:08	15° $\mathring{M}$		minimum elong	-2864 Feb 04 j 17:03	23° $\mathring{Z}$ 08'19	1°35'50
retrograde	-2870 Mar 21 j 19:37	18° $\mathring{M}$ 25'15		max. Earth dist.	-2864 Feb 04 j 12:58	23° $\mathring{Z}$ 07'01	10.25844 AU
opposition	-2870 May 31 j 21:27	15° $\mathring{M}$ 05'25	1°16'36	morning rise	-2864 Feb 22 j 05:15	25° $\mathring{Z}$ 21'59	

# Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 4

Attention, astronomical year style is used: The year -2864 in astronomical counting style is the year 2865 BCE in historical counting style.

	-2864 Apr 02 j 18:52	0°♊		conjunction	-2858 May 04 j 13:56	19°♑11'42	-1°-51'-28
retrograde	-2864 Jun 08 j 14:24	3°♊34'42		minimum elong	-2858 May 04 j 14:00	19°♑11'43	1°51'27
opposition	-2864 Aug 16 j 15:23	0°♊05'48	-2°-13'-58	max. Earth dist.	-2858 May 05 j 02:29	19°♑15'50	9.92745 AU
min. Earth dist.	-2864 Aug 16 j 17:22	0°♊05'24	8.19397 AU	morning rise	-2858 May 22 j 17:58	21°♑34'24	
	-2864 Aug 17 j 20:18	30°♊		retrograde	-2858 Sep 04 j 22:39	29°♑56'57	
direct	-2864 Oct 22 j 07:17	26°♊41'54		opposition	-2858 Nov 10 j 09:22	26°♑27'10	-2°-4'-35
	-2864 Dec 22 j 20:59	0°♊		min. Earth dist.	-2858 Nov 09 j 23:14	26°♑29'16	7.95609 AU
evening set	-2863 Jan 31 j 11:03	4°♊34'12		direct	-2857 Jan 16 j 03:18	22°♑56'55	
					-2857 Apr 21 j 12:18	0°♊	
conjunction	-2863 Feb 17 j 21:59	6°♊49'07	-1°-57'-45	evening set	-2857 May 01 j 20:19	1°♊18'11	
minimum elong	-2863 Feb 17 j 21:56	6°♊49'06	1°57'50				
max. Earth dist.	-2863 Feb 17 j 21:07	6°♊48'50	10.13269 AU	conjunction	-2857 May 20 j 01:03	3°♊39'59	-1°-26'-8
morning rise	-2863 Mar 07 j 13:46	9°♊05'41		minimum elong	-2857 May 20 j 01:07	3°♊40'00	1°26'05
	-2863 Apr 30 j 01:50	15°♊		max. Earth dist.	-2857 May 20 j 14:58	3°♊44'32	9.99098 AU
retrograde	-2863 Jun 23 j 08:31	17°♊28'13		morning rise	-2857 Jun 07 j 04:39	6°♊01'22	
	-2863 Aug 17 j 22:51	15°♊		retrograde	-2857 Sep 19 j 05:07	14°♊13'55	
opposition	-2863 Aug 30 j 19:20	13°♊58'09	-2°-37'-59	opposition	-2857 Nov 24 j 15:11	10°♊45'25	-1°-29'-27
min. Earth dist.	-2863 Aug 30 j 18:22	13°♊58'21	8.07813 AU	min. Earth dist.	-2857 Nov 24 j 04:12	10°♊47'41	8.03440 AU
direct	-2863 Nov 05 j 01:42	10°♊32'50		direct	-2856 Jan 30 j 22:33	7°♊15'07	
	-2862 Jan 16 j 06:39	15°♊			-2856 May 11 j 20:10	15°♊	
evening set	-2862 Feb 15 j 00:32	18°♊35'29		evening set	-2856 May 16 j 00:22	15°♊31'32	
conjunction	-2862 Mar 04 j 15:16	20°♊53'06	-2°-13'-23	conjunction	-2856 Jun 03 j 04:38	17°♊51'36	0°-55'-57
minimum elong	-2862 Mar 04 j 15:14	20°♊53'06	2°13'27	minimum elong	-2856 Jun 03 j 04:40	17°♊51'37	0°55'53
max. Earth dist.	-2862 Mar 04 j 17:29	20°♊53'50	10.02736 AU	max. Earth dist.	-2856 Jun 03 j 18:54	17°♊56'13	10.08413 AU
morning rise	-2862 Mar 22 j 10:31	23°♊12'13		morning rise	-2856 Jun 21 j 06:17	20°♊10'48	
	-2862 May 25 j 02:34	0°♋		retrograde	-2856 Oct 02 j 02:42	28°♊11'44	
retrograde	-2862 Jul 08 j 07:43	1°♋42'04		opposition	-2856 Dec 07 j 14:33	24°♊44'47	0°-49'-44
	-2862 Aug 22 j 00:39	30°♋		min. Earth dist.	-2856 Dec 07 j 03:42	24°♊47'01	8.13941 AU
opposition	-2862 Sep 14 j 04:44	28°♋11'12	-2°-53'-3	direct	-2855 Feb 13 j 12:07	21°♋14'48	
min. Earth dist.	-2862 Sep 14 j 01:13	28°♋11'55	7.98649 AU	evening set	-2855 May 30 j 19:37	29°♋24'19	
direct	-2862 Nov 19 j 04:51	24°♋44'28			-2855 Jun 04 j 13:16	0°♌	
	-2861 Feb 06 j 07:19	0°♋					
evening set	-2861 Mar 02 j 00:34	2°♋56'09		conjunction	-2855 Jun 17 j 21:45	1°♌41'53	0°-23'-9
				minimum elong	-2855 Jun 17 j 21:47	1°♌41'53	0°23'04
conjunction	-2861 Mar 19 j 19:06	5°♋16'04	-2°-21'-8	max. Earth dist.	-2855 Jun 18 j 11:20	1°♌46'13	10.20056 AU
minimum elong	-2861 Mar 19 j 19:06	5°♋16'03	2°21'11	morning rise	-2855 Jul 05 j 20:05	3°♌58'14	
max. Earth dist.	-2861 Mar 20 j 00:24	5°♋17'48	9.94993 AU	retrograde	-2855 Oct 15 j 15:38	11°♌46'58	
morning rise	-2861 Apr 06 j 17:33	7°♋37'13		opposition	-2855 Dec 21 j 06:53	8°♌21'45	0°-8'-19
retrograde	-2861 Jul 23 j 09:28	16°♋11'02		min. Earth dist.	-2855 Dec 20 j 21:05	8°♌23'44	8.26443 AU
opposition	-2861 Sep 28 j 17:58	12°♋39'45	-2°-57'-28	direct	-2854 Feb 27 j 19:40	4°♌52'24	
min. Earth dist.	-2861 Sep 28 j 12:22	12°♋40'55	7.92554 AU	asc. node	-2854 Mar 07 j 16:09	4°♌55'39	
direct	-2861 Dec 03 j 15:34	9°♋11'44		evening set	-2854 Jun 14 j 04:07	12°♌53'37	
evening set	-2860 Mar 16 j 08:26	17°♋30'15					
				conjunction	-2854 Jul 02 j 02:39	15°♌08'08	0°10'11
conjunction	-2860 Apr 03 j 06:38	19°♋51'53	-2°-20'-3	minimum elong	-2854 Jul 02 j 02:38	15°♌08'08	0°10'16
minimum elong	-2860 Apr 03 j 06:40	19°♋51'53	2°20'04	behind sun begin	-2854 Jul 01 j 20:55	15°♌06'21	
max. Earth dist.	-2860 Apr 03 j 14:54	19°♋54'37	9.90592 AU	behind sun end	-2854 Jul 02 j 08:22	15°♌09'55	
morning rise	-2860 Apr 21 j 07:51	22°♋14'25		max. Earth dist.	-2854 Jul 02 j 14:32	15°♌11'52	10.33305 AU
	-2860 Jul 07 j 19:55	0°♍		morning rise	-2854 Jul 19 j 20:36	17°♌21'12	
retrograde	-2860 Aug 06 j 10:40	0°♍48'17		retrograde	-2854 Oct 28 j 16:53	24°♌58'00	
	-2860 Sep 05 j 02:16	30°♍		opposition	-2853 Jan 03 j 15:38	21°♌34'34	0°32'14
opposition	-2860 Oct 12 j 08:43	27°♍17'03	-2°-50'-29	min. Earth dist.	-2853 Jan 03 j 07:38	21°♌36'11	8.40212 AU
min. Earth dist.	-2860 Oct 12 j 01:22	27°♍18'35	7.89946 AU	direct	-2853 Mar 13 j 20:41	18°♌06'10	
direct	-2860 Dec 17 j 08:38	23°♍47'58		evening set	-2853 Jun 28 j 01:13	25°♌58'22	
	-2859 Mar 14 j 14:55	0°♍					
evening set	-2859 Mar 31 j 21:00	2°♍10'32		conjunction	-2853 Jul 15 j 19:04	28°♌09'30	0°42'00
				minimum elong	-2853 Jul 15 j 19:02	28°♌09'30	0°42'05
conjunction	-2859 Apr 18 j 22:23	4°♍33'07	-2°-9'-55	max. Earth dist.	-2853 Jul 16 j 04:04	28°♌12'17	10.47415 AU
minimum elong	-2859 Apr 18 j 22:26	4°♍33'08	2°09'55		-2853 Jul 30 j 17:12	0°♎	
max. Earth dist.	-2859 Apr 19 j 09:04	4°♍36'39	9.89831 AU	morning rise	-2853 Aug 02 j 07:59	0°♎19'07	
morning rise	-2859 May 07 j 01:34	6°♍56'12		retrograde	-2853 Nov 10 j 08:13	7°♎44'49	
retrograde	-2859 Aug 21 j 08:01	15°♍26'07		opposition	-2852 Jan 16 j 16:44	4°♎23'09	1°09'50
opposition	-2859 Oct 26 j 22:32	11°♍55'25	-2°-32'-22	min. Earth dist.	-2852 Jan 16 j 10:23	4°♎24'24	8.54500 AU
min. Earth dist.	-2859 Oct 26 j 13:46	11°♍57'15	7.90995 AU	direct	-2852 Mar 26 j 13:42	0°♎55'55	
direct	-2858 Jan 01 j 05:43	8°♍25'34		evening set	-2852 Jul 10 j 10:36	8°♎38'55	
evening set	-2858 Apr 16 j 10:15	16°♍49'03					



## Planetary Phenomena of Saturn from -2900 through -2400 (UT), AstroDienst AG 7-Dez-2017 14:40, page 5

Attention, astronomical year style is used: The year -2852 in astronomical counting style is the year 2853 BCE in historical counting style.

conjunction	-2852 Jul 27 j 23:10	10° <del>5</del> 46'37	1°10'55	max. Earth dist.	-2846 Oct 05 j 11:39	20° <del>7</del> 09'14	11.18127 AU
minimum elong	-2852 Jul 27 j 23:07	10° <del>5</del> 46'36	1°11'00	morning rise	-2846 Oct 22 j 04:17	22° <del>7</del> 05'00	
max. Earth dist.	-2852 Jul 28 j 05:18	10° <del>5</del> 48'29	10.61655 AU	retrograde	-2845 Jan 29 j 15:59	28° <del>7</del> 55'15	
morning rise	-2852 Aug 14 j 06:39	12° <del>5</del> 52'45		opposition	-2845 Apr 09 j 23:25	25° <del>7</del> 39'24	2°49'44
retrograde	-2852 Nov 21 j 17:02	20° <del>5</del> 08'40		min. Earth dist.	-2845 Apr 10 j 07:04	25° <del>7</del> 38'00	9.19225 AU
opposition	-2851 Jan 28 j 10:59	16° <del>5</del> 48'38	1°42'53	direct	-2845 Jun 20 j 13:05	22° <del>7</del> 20'33	
min. Earth dist.	-2851 Jan 28 j 06:03	16° <del>5</del> 49'35	8.68589 AU	evening set	-2845 Sep 30 j 10:11	29° <del>7</del> 18'22	
direct	-2851 Apr 08 j 21:03	13° <del>5</del> 22'44			-2845 Oct 06 j 11:32	0° <del>5</del>	
evening set	-2851 Jul 23 j 08:24	20° <del>5</del> 56'42					
conjunction	-2851 Aug 09 j 15:32	23° <del>5</del> 01'07	1°35'48	conjunction	-2845 Oct 16 j 20:22	1° <del>5</del> 12'09	2°15'17
minimum elong	-2851 Aug 09 j 15:29	23° <del>5</del> 01'06	1°35'52	minimum elong	-2845 Oct 16 j 20:23	1° <del>5</del> 12'09	2°15'16
max. Earth dist.	-2851 Aug 09 j 19:37	23° <del>5</del> 02'21	10.75350 AU	max. Earth dist.	-2845 Oct 16 j 10:07	1° <del>5</del> 09'10	11.19193 AU
morning rise	-2851 Aug 26 j 17:31	25° <del>5</del> 03'59		morning rise	-2845 Nov 02 j 05:02	3° <del>5</del> 05'34	
retrograde	-2851 Oct 13 j 13:09	0° <del>0</del>		retrograde	-2844 Feb 10 j 04:34	9° <del>5</del> 57'19	
retrograde	-2851 Dec 03 j 18:15	2° <del>0</del> 11'37		opposition	-2844 Apr 20 j 19:13	6° <del>5</del> 41'06	2°38'14
	-2850 Jan 26 j 01:19	30° <del>0</del>		min. Earth dist.	-2844 Apr 21 j 05:17	6° <del>5</del> 39'15	9.18830 AU
opposition	-2850 Feb 09 j 23:03	28° <del>5</del> 52'59	2°10'20	direct	-2844 Jul 01 j 04:50	3° <del>5</del> 22'48	
min. Earth dist.	-2850 Feb 09 j 19:44	28° <del>5</del> 53'37	8.81839 AU	evening set	-2844 Oct 10 j 11:11	10° <del>5</del> 19'00	
direct	-2850 Apr 21 j 20:09	25° <del>5</del> 28'31		conjunction	-2844 Oct 26 j 20:59	12° <del>5</del> 12'58	2°03'22
	-2850 Jul 09 j 14:51	0° <del>0</del>		minimum elong	-2844 Oct 26 j 21:01	12° <del>5</del> 12'59	2°03'20
evening set	-2850 Aug 04 j 19:40	2° <del>0</del> 53'59		max. Earth dist.	-2844 Oct 26 j 08:25	12° <del>5</del> 09'19	11.17401 AU
conjunction	-2850 Aug 21 j 21:34	4° <del>0</del> 55'24	1°55'52	morning rise	-2844 Nov 12 j 06:21	14° <del>5</del> 06'51	
minimum elong	-2850 Aug 21 j 21:31	4° <del>0</del> 55'24	1°55'56	retrograde	-2843 Feb 20 j 19:20	21° <del>5</del> 01'48	
max. Earth dist.	-2850 Aug 21 j 23:45	4° <del>0</del> 56'03	10.87910 AU	opposition	-2843 May 02 j 16:25	17° <del>5</del> 44'51	2°20'52
morning rise	-2850 Sep 07 j 18:25	6° <del>0</del> 55'23		min. Earth dist.	-2843 May 03 j 03:41	17° <del>5</del> 42'48	9.15598 AU
retrograde	-2850 Dec 15 j 14:27	13° <del>0</del> 56'16		direct	-2843 Jul 12 j 19:13	14° <del>5</del> 26'53	
opposition	-2849 Feb 22 j 05:39	10° <del>0</del> 38'51	2°31'29	evening set	-2843 Oct 21 j 12:20	21° <del>5</del> 22'56	
min. Earth dist.	-2849 Feb 22 j 05:03	10° <del>0</del> 38'58	8.93700 AU	conjunction	-2843 Nov 06 j 22:50	23° <del>5</del> 17'39	1°46'46
direct	-2849 May 04 j 11:23	7° <del>0</del> 15'44		minimum elong	-2843 Nov 06 j 22:52	23° <del>5</del> 17'39	1°46'44
evening set	-2849 Aug 16 j 21:31	14° <del>0</del> 33'32		max. Earth dist.	-2843 Nov 06 j 09:58	23° <del>5</del> 13'52	11.12855 AU
	-2849 Aug 20 j 16:38	15° <del>0</del>		morning rise	-2843 Nov 23 j 09:38	25° <del>5</del> 12'31	
conjunction	-2849 Sep 02 j 18:32	16° <del>0</del> 32'22	2°10'41		-2842 Jan 10 j 07:16	0° <del>0</del>	
minimum elong	-2849 Sep 02 j 18:30	16° <del>0</del> 32'21	2°10'44	retrograde	-2842 Mar 04 j 16:19	2° <del>0</del> 12'18	
max. Earth dist.	-2849 Sep 02 j 17:40	16° <del>0</del> 32'06	10.98834 AU		-2842 Apr 29 j 10:49	30° <del>0</del>	
morning rise	-2849 Sep 19 j 11:04	18° <del>0</del> 29'54		opposition	-2842 May 14 j 16:00	28° <del>5</del> 54'19	1°58'05
retrograde	-2849 Dec 27 j 05:50	25° <del>0</del> 25'39		min. Earth dist.	-2842 May 15 j 03:18	28° <del>5</del> 52'15	9.09682 AU
opposition	-2848 Mar 05 j 08:02	22° <del>0</del> 09'08	2°46'02	direct	-2842 Jul 24 j 10:59	25° <del>0</del> 36'24	
min. Earth dist.	-2848 Mar 05 j 10:12	22° <del>0</del> 08'44	9.03706 AU	evening set	-2842 Oct 09 j 07:36	0° <del>0</del>	
direct	-2848 May 15 j 18:51	18° <del>0</del> 47'20			-2842 Nov 01 j 15:52	2° <del>0</del> 33'48	
evening set	-2848 Aug 27 j 15:09	25° <del>0</del> 58'23		conjunction	-2842 Nov 18 j 03:46	4° <del>0</del> 29'46	1°25'56
conjunction	-2848 Sep 13 j 07:56	27° <del>0</del> 55'06	2°20'01	minimum elong	-2842 Nov 18 j 03:48	4° <del>0</del> 29'47	1°25'53
minimum elong	-2848 Sep 13 j 07:55	27° <del>0</del> 55'06	2°20'04	max. Earth dist.	-2842 Nov 17 j 14:45	4° <del>0</del> 25'55	11.05737 AU
max. Earth dist.	-2848 Sep 13 j 03:52	27° <del>0</del> 53'54	11.07718 AU	morning rise	-2842 Dec 04 j 16:43	6° <del>0</del> 26'09	
morning rise	-2848 Sep 29 j 21:04	29° <del>0</del> 50'45		retrograde	-2841 Mar 16 j 18:34	13° <del>0</del> 32'15	
	-2848 Oct 01 j 05:21	0° <del>0</del>		opposition	-2841 May 26 j 19:07	10° <del>0</del> 13'01	1°30'24
retrograde	-2847 Jan 06 j 16:55	6° <del>0</del> 43'03		min. Earth dist.	-2841 May 27 j 06:27	10° <del>0</del> 10'55	9.01314 AU
opposition	-2847 Mar 17 j 07:05	3° <del>0</del> 27'04	2°53'51	direct	-2841 Aug 05 j 02:10	6° <del>0</del> 54'53	
min. Earth dist.	-2847 Mar 17 j 11:11	3° <del>0</del> 26'19	9.11483 AU	evening set	-2841 Nov 12 j 23:31	13° <del>0</del> 55'11	
direct	-2847 May 27 j 22:37	0° <del>0</del> 06'26			-2841 Nov 22 j 03:45	15° <del>0</del>	
evening set	-2847 Sep 08 j 02:01	7° <del>0</del> 11'49		conjunction	-2841 Nov 29 j 13:17	15° <del>0</del> 52'49	1°01'26
conjunction	-2847 Sep 24 j 15:40	9° <del>0</del> 06'59	2°23'50	minimum elong	-2841 Nov 29 j 13:19	15° <del>0</del> 52'50	1°01'23
minimum elong	-2847 Sep 24 j 15:39	9° <del>0</del> 06'59	2°23'52	max. Earth dist.	-2841 Nov 28 j 23:32	15° <del>0</del> 48'43	10.96321 AU
max. Earth dist.	-2847 Sep 24 j 09:34	9° <del>0</del> 05'12	11.14239 AU	morning rise	-2841 Dec 16 j 05:13	17° <del>0</del> 51'11	
morning rise	-2847 Oct 11 j 02:16	11° <del>0</del> 01'17		retrograde	-2840 Mar 28 j 02:40	25° <del>0</del> 05'09	
retrograde	-2846 Jan 18 j 05:08	17° <del>0</del> 51'45		opposition	-2840 Jun 07 j 03:07	21° <del>0</del> 44'25	0°58'34
opposition	-2846 Mar 29 j 03:46	14° <del>0</del> 35'59	2°55'02	min. Earth dist.	-2840 Jun 07 j 14:42	21° <del>0</del> 42'15	8.90821 AU
min. Earth dist.	-2846 Mar 29 j 09:13	14° <del>0</del> 34'59	9.16736 AU	direct	-2840 Aug 15 j 21:28	18° <del>0</del> 25'47	
direct	-2846 Jun 08 j 20:46	11° <del>0</del> 16'21		evening set	-2840 Nov 23 j 12:59	25° <del>0</del> 30'35	
evening set	-2846 Sep 19 j 07:42	18° <del>0</del> 17'15		conjunction	-2840 Dec 10 j 05:13	27° <del>0</del> 30'20	0°33'58
conjunction	-2846 Oct 05 j 19:14	20° <del>0</del> 11'26	2°22'11	minimum elong	-2840 Dec 10 j 05:14	27° <del>0</del> 30'20	0°33'53
minimum elong	-2846 Oct 05 j 19:15	20° <del>0</del> 11'27	2°22'13	max. Earth dist.	-2840 Dec 09 j 15:45	27° <del>0</del> 26'17	10.84960 AU
				morning rise	-2840 Dec 27 j 00:37	29° <del>0</del> 31'03	

Attention, astronomical year style is used: The year -2840 in astronomical counting style is the year 2841 BCE in historical counting style.

	-2840 Dec 31 j 03:19	0°♊				-2833 Feb 27 j 12:41	15°♊	
retrograde	-2839 Apr 09 j 19:37	6°♊54'19		morning rise	-2833 Mar 16 j 04:37	17°♊09'44		
opposition	-2839 Jun 19 j 16:40	3°♊31'56	0°23'28	retrograde	-2833 Jul 02 j 00:37	25°♊37'19		
min. Earth dist.	-2839 Jun 20 j 03:41	3°♊29'51	8.78598 AU	opposition	-2833 Sep 08 j 05:10	22°♊06'18	-2°-47'-39	
direct	-2839 Aug 27 j 22:04	0°♊12'34		min. Earth dist.	-2833 Sep 08 j 02:48	22°♊06'48	8.01050 AU	
evening set	-2839 Dec 05 j 10:24	7°♊23'28		direct	-2833 Nov 13 j 08:29	18°♊39'47		
				evening set	-2832 Feb 23 j 17:25	26°♊48'12		
conjunction	-2839 Dec 22 j 05:40	9°♊25'41	0°04'28					
minimum elong	-2839 Dec 22 j 05:39	9°♊25'40	0°04'23	conjunction	-2832 Mar 12 j 10:22	29°♊07'19	-2°-18'-45	
behind sun begin	-2839 Dec 21 j 22:45	9°♊23'35		minimum elong	-2832 Mar 12 j 10:20	29°♊07'18	2°18'48	
behind sun end	-2839 Dec 22 j 12:34	9°♊27'46		max. Earth dist.	-2832 Mar 12 j 15:35	29°♊09'02	9.96912 AU	
max. Earth dist.	-2839 Dec 21 j 17:53	9°♊22'06	10.72070 AU		-2832 Mar 19 j 02:17	0°♋		
morning rise	-2838 Jan 08 j 04:40	11°♊29'06		morning rise	-2832 Mar 30 j 07:30	1°♋27'48		
desc. node	-2838 Feb 14 j 23:28	15°♊36'42		retrograde	-2832 Jul 16 j 01:45	10°♋00'52		
retrograde	-2838 Apr 22 j 20:53	19°♊02'50		opposition	-2832 Sep 21 j 17:08	6°♋29'25	-2°-56'-55	
opposition	-2838 Jul 02 j 12:24	15°♊38'43	0°-13'-41	min. Earth dist.	-2832 Sep 21 j 11:41	6°♋30'33	7.93909 AU	
min. Earth dist.	-2838 Jul 02 j 21:43	15°♊36'56	8.65117 AU	direct	-2832 Nov 26 j 15:58	3°♋01'44		
direct	-2838 Sep 09 j 03:32	12°♊18'26		evening set	-2831 Mar 09 j 22:30	11°♋17'59		
evening set	-2838 Dec 17 j 17:26	19°♊37'00						
				conjunction	-2831 Mar 27 j 19:18	13°♋39'04	-2°-21'-37	
conjunction	-2837 Jan 03 j 15:58	21°♊41'56	0°-26'-7	minimum elong	-2831 Mar 27 j 19:18	13°♋39'04	2°21'40	
minimum elong	-2837 Jan 03 j 15:57	21°♊41'56	0°26'14	max. Earth dist.	-2831 Mar 28 j 04:16	13°♋42'02	9.91358 AU	
max. Earth dist.	-2837 Jan 03 j 06:23	21°♊38'59	10.58162 AU	morning rise	-2831 Apr 14 j 19:19	16°♋01'13		
morning rise	-2837 Jan 20 j 18:42	23°♊48'17		retrograde	-2831 Jul 31 j 04:32	24°♋36'03		
	-2837 Mar 23 j 14:27	0°♌		opposition	-2831 Oct 06 j 07:47	21°♋04'37	-2°-54'-57	
retrograde	-2837 May 06 j 08:39	1°♌33'26		min. Earth dist.	-2831 Oct 05 j 23:40	21°♋06'19	7.90103 AU	
	-2837 Jun 20 j 00:22	30°♌♊		direct	-2831 Dec 11 j 05:43	17°♋36'00		
opposition	-2837 Jul 15 j 15:27	28°♊07'35	0°-51'-26	evening set	-2830 Mar 25 j 09:47	25°♋57'31		
min. Earth dist.	-2837 Jul 15 j 22:20	28°♊06'15	8.50937 AU					
direct	-2837 Sep 21 j 16:19	24°♊46'14		conjunction	-2830 Apr 12 j 09:58	28°♋19'52	-2°-15'-25	
	-2837 Dec 11 j 16:27	0°♌		minimum elong	-2830 Apr 12 j 10:00	28°♋19'52	2°15'26	
evening set	-2837 Dec 30 j 11:34	2°♌13'46		max. Earth dist.	-2830 Apr 12 j 22:05	28°♋23'53	9.89353 AU	
					-2830 Apr 25 j 00:53	0°♍		
conjunction	-2836 Jan 16 j 13:26	4°♌21'38	0°-56'-13	morning rise	-2830 Apr 30 j 12:14	0°♍42'53		
minimum elong	-2836 Jan 16 j 13:24	4°♌21'38	0°56'20	retrograde	-2830 Aug 15 j 05:38	9°♍15'30		
max. Earth dist.	-2836 Jan 16 j 05:38	4°♌19'11	10.43849 AU	opposition	-2830 Oct 20 j 22:42	5°♍44'34	-2°-41'-34	
morning rise	-2836 Feb 02 j 20:07	6°♌31'05		min. Earth dist.	-2830 Oct 20 j 12:40	5°♍46'40	7.89926 AU	
retrograde	-2836 May 19 j 06:56	14°♌28'05		direct	-2830 Dec 26 j 01:05	2°♍15'15		
opposition	-2836 Jul 28 j 02:09	11°♌00'35	-1°-27'-56	evening set	-2829 Apr 09 j 23:37	10°♍39'00		
min. Earth dist.	-2836 Jul 28 j 06:52	10°♌59'39	8.36710 AU					
direct	-2836 Oct 03 j 11:51	7°♌38'01		conjunction	-2829 Apr 28 j 02:29	13°♍01'46	-2°00'-27	
evening set	-2835 Jan 11 j 18:12	15°♌15'36		minimum elong	-2829 Apr 28 j 02:33	13°♍01'48	2°00'27	
				max. Earth dist.	-2829 Apr 28 j 16:48	13°♍06'30	9.91069 AU	
conjunction	-2835 Jan 28 j 23:35	17°♌26'29	-1°-24'-20	morning rise	-2829 May 16 j 06:09	15°♍24'48		
minimum elong	-2835 Jan 28 j 23:32	17°♌26'28	1°24'25	retrograde	-2829 Aug 30 j 00:37	23°♍51'21		
max. Earth dist.	-2835 Jan 28 j 17:51	17°♌24'39	10.29819 AU	opposition	-2829 Nov 04 j 11:33	20°♍21'22	-2°-17'-44	
morning rise	-2835 Feb 15 j 10:12	19°♌39'02		min. Earth dist.	-2829 Nov 04 j 00:33	20°♍23'40	7.93414 AU	
retrograde	-2835 Jun 02 j 14:18	27°♌47'36		direct	-2828 Jan 09 j 22:39	16°♍51'38		
opposition	-2835 Aug 10 j 20:17	24°♌18'39	-2°-1'-1	evening set	-2828 Apr 24 j 12:10	25°♍14'24		
min. Earth dist.	-2835 Aug 10 j 23:04	24°♌18'06	8.23155 AU					
direct	-2835 Oct 16 j 16:25	20°♌54'44		conjunction	-2828 May 12 j 16:35	27°♍36'41	-1°-37'-53	
evening set	-2834 Jan 25 j 13:42	28°♌43'01		minimum elong	-2828 May 12 j 16:39	27°♍36'43	1°37'51	
	-2834 Feb 04 j 14:43	0°♎		max. Earth dist.	-2828 May 13 j 07:46	27°♍41'40	9.96375 AU	
				morning rise	-2828 May 30 j 20:29	29°♍58'45		
conjunction	-2834 Feb 11 j 22:49	0°♎56'51	-1°-48'-39		-2828 May 31 j 00:21	0°♏		
minimum elong	-2834 Feb 11 j 22:46	0°♎56'50	1°48'44	retrograde	-2828 Sep 12 j 11:36	8°♏16'08		
max. Earth dist.	-2834 Feb 11 j 19:58	0°♎55'56	10.16815 AU	opposition	-2828 Nov 17 j 20:15	4°♏47'27	-1°-45'-26	
morning rise	-2834 Mar 01 j 13:13	3°♎12'23		min. Earth dist.	-2828 Nov 17 j 09:12	4°♏49'45	8.00302 AU	
retrograde	-2834 Jun 17 j 04:07	11°♎31'28		direct	-2827 Jan 23 j 19:35	1°♏17'36		
opposition	-2834 Aug 24 j 21:39	8°♎01'19	-2°-28'-22	evening set	-2827 May 09 j 19:49	9°♏36'28		
min. Earth dist.	-2834 Aug 24 j 22:06	8°♎01'13	8.11021 AU					
direct	-2834 Oct 30 j 08:17	4°♎36'04		conjunction	-2827 May 28 j 00:18	11°♏57'19	-1°-9'-31	
evening set	-2833 Feb 08 j 21:45	12°♎34'53		minimum elong	-2827 May 28 j 00:22	11°♏57'20	1°09'28	
				max. Earth dist.	-2827 May 28 j 15:04	12°♏02'07	10.04853 AU	
conjunction	-2833 Feb 26 j 10:43	14°♎51'31	-2°-7'-21	morning rise	-2827 Jun 15 j 02:59	14°♏17'31		
minimum elong	-2833 Feb 26 j 10:41	14°♎51'30	2°07'25		-2827 Jun 20 j 17:41	15°♏		
max. Earth dist.	-2833 Feb 26 j 11:44	14°♎51'51	10.05601 AU	retrograde	-2827 Sep 26 j 13:09	22°♏23'37		

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 7

Attention, astronomical year style is used: The year -2827 in astronomical counting style is the year 2828 BCE in historical counting style.

opposition	-2827 Dec 01 j 22:59	18° $\text{♄}$ 56'29	-1°-7'-21	max. Earth dist.	-2821 Aug 17 j 02:47	0° $\text{♄}$ 05'28	10.82230 AU
min. Earth dist.	-2827 Dec 01 j 12:11	18° $\text{♄}$ 58'42	8.10071 AU	morning rise	-2821 Sep 03 j 01:09	2° $\text{♄}$ 06'31	
direct	-2826 Feb 07 j 12:59	15° $\text{♄}$ 26'51		retrograde	-2821 Dec 10 j 22:24	9° $\text{♄}$ 10'29	
evening set	-2826 May 24 j 19:26	23° $\text{♄}$ 39'24		opposition	-2820 Feb 17 j 09:13	5° $\text{♄}$ 52'34	2°23'11
				min. Earth dist.	-2820 Feb 17 j 08:57	5° $\text{♄}$ 52'38	8.88120 AU
conjunction	-2826 Jun 11 j 22:28	25° $\text{♄}$ 58'00	0°-37'-34	direct	-2820 Apr 28 j 11:58	2° $\text{♄}$ 28'45	
minimum elong	-2826 Jun 11 j 22:30	25° $\text{♄}$ 58'01	0°37'31	evening set	-2820 Aug 11 j 04:06	9° $\text{♄}$ 50'15	
max. Earth dist.	-2826 Jun 12 j 12:00	26° $\text{♄}$ 02'21	10.15861 AU				
morning rise	-2826 Jun 29 j 22:30	28° $\text{♄}$ 15'35		conjunction	-2820 Aug 28 j 03:11	11° $\text{♄}$ 50'16	2°04'59
	-2826 Jul 14 j 03:06	0° $\text{♄}$		minimum elong	-2820 Aug 28 j 03:08	11° $\text{♄}$ 50'15	2°05'02
retrograde	-2826 Oct 10 j 05:07	6° $\text{♄}$ 09'27		max. Earth dist.	-2820 Aug 28 j 01:38	11° $\text{♄}$ 49'48	10.93441 AU
opposition	-2826 Dec 15 j 18:34	2° $\text{♄}$ 43'59	0°-26'-20	morning rise	-2820 Sep 13 j 21:40	13° $\text{♄}$ 48'56	
min. Earth dist.	-2826 Dec 15 j 08:25	2° $\text{♄}$ 46'02	8.21995 AU		-2820 Sep 24 j 06:31	15° $\text{♄}$	
	-2825 Jan 23 j 14:55	30° $\text{♄}$		retrograde	-2820 Dec 21 j 16:21	20° $\text{♄}$ 47'10	
direct	-2825 Feb 22 j 00:41	29° $\text{♄}$ 14'50		opposition	-2819 Feb 28 j 13:41	17° $\text{♄}$ 30'04	2°40'39
	-2825 Mar 23 j 09:13	0° $\text{♄}$		min. Earth dist.	-2819 Feb 28 j 14:55	17° $\text{♄}$ 29'50	8.98509 AU
evening set	-2825 Jun 08 j 08:52	7° $\text{♄}$ 19'30			-2819 Apr 07 j 06:21	15° $\text{♄}$	
				direct	-2819 May 10 j 23:35	14° $\text{♄}$ 07'26	
conjunction	-2825 Jun 26 j 09:04	9° $\text{♄}$ 35'17	0°-4'-18		-2819 Jun 13 j 06:58	15° $\text{♄}$	
minimum elong	-2825 Jun 26 j 09:04	9° $\text{♄}$ 35'16	0°04'14	evening set	-2819 Aug 23 j 01:14	21° $\text{♄}$ 21'46	
behind sun begin	-2825 Jun 26 j 01:53	9° $\text{♄}$ 33'02					
behind sun end	-2825 Jun 26 j 16:14	9° $\text{♄}$ 37'31		conjunction	-2819 Sep 08 j 20:00	23° $\text{♄}$ 19'30	2°16'43
max. Earth dist.	-2825 Jun 26 j 20:43	9° $\text{♄}$ 38'57	10.28579 AU	minimum elong	-2819 Sep 08 j 19:58	23° $\text{♄}$ 19'29	2°16'46
morning rise	-2825 Jul 14 j 05:11	11° $\text{♄}$ 49'44		max. Earth dist.	-2819 Sep 08 j 16:58	23° $\text{♄}$ 18'36	11.02810 AU
asc. node	-2825 Aug 13 j 20:29	15° $\text{♄}$ 22'53		morning rise	-2819 Sep 25 j 10:30	25° $\text{♄}$ 16'03	
retrograde	-2825 Oct 23 j 10:52	19° $\text{♄}$ 31'27			-2819 Nov 11 j 09:45	0° $\text{♄}$	
opposition	-2825 Dec 29 j 06:37	16° $\text{♄}$ 07'44	0°14'51	retrograde	-2818 Jan 02 j 06:05	2° $\text{♄}$ 10'10	
min. Earth dist.	-2825 Dec 28 j 21:37	16° $\text{♄}$ 09'32	8.35232 AU		-2818 Feb 25 j 09:41	30° $\text{♄}$	
direct	-2824 Mar 07 j 05:20	12° $\text{♄}$ 39'24		opposition	-2818 Mar 12 j 14:20	28° $\text{♄}$ 53'36	2°51'25
evening set	-2824 Jun 21 j 11:21	20° $\text{♄}$ 35'24		min. Earth dist.	-2818 Mar 12 j 17:47	28° $\text{♄}$ 52'57	9.06874 AU
				direct	-2818 May 23 j 04:31	25° $\text{♄}$ 32'02	
conjunction	-2824 Jul 09 j 07:26	22° $\text{♄}$ 47'57	0°28'27		-2818 Aug 10 j 01:59	0° $\text{♄}$	
minimum elong	-2824 Jul 09 j 07:24	22° $\text{♄}$ 47'57	0°28'32	evening set	-2818 Sep 03 j 15:06	2° $\text{♄}$ 40'17	
max. Earth dist.	-2824 Jul 09 j 17:03	22° $\text{♄}$ 50'57	10.42197 AU				
morning rise	-2824 Jul 26 j 22:37	24° $\text{♄}$ 59'01		conjunction	-2818 Sep 20 j 06:14	4° $\text{♄}$ 36'14	2°22'55
	-2824 Sep 11 j 11:51	0° $\text{♄}$		minimum elong	-2818 Sep 20 j 06:13	4° $\text{♄}$ 36'14	2°22'57
retrograde	-2824 Nov 04 j 07:55	2° $\text{♄}$ 29'24		max. Earth dist.	-2818 Sep 20 j 00:47	4° $\text{♄}$ 34'38	11.10011 AU
	-2824 Dec 30 j 06:17	30° $\text{♄}$		morning rise	-2818 Oct 06 j 17:50	6° $\text{♄}$ 31'13	
opposition	-2823 Jan 10 j 11:14	29° $\text{♄}$ 07'25	0°53'58	retrograde	-2817 Jan 13 j 17:34	13° $\text{♄}$ 22'48	
min. Earth dist.	-2823 Jan 10 j 04:04	29° $\text{♄}$ 08'50	8.49061 AU	opposition	-2817 Mar 24 j 12:03	10° $\text{♄}$ 06'31	2°55'28
direct	-2823 Mar 21 j 01:06	25° $\text{♄}$ 40'06		min. Earth dist.	-2817 Mar 24 j 18:09	10° $\text{♄}$ 05'24	9.12930 AU
	-2823 Jun 04 j 12:52	0° $\text{♄}$		direct	-2817 Jun 04 j 04:00	6° $\text{♄}$ 45'55	
evening set	-2823 Jul 05 j 02:15	3° $\text{♄}$ 27'07		evening set	-2817 Sep 14 j 23:11	13° $\text{♄}$ 49'15	
conjunction	-2823 Jul 22 j 17:19	5° $\text{♄}$ 36'18	0°58'49	conjunction	-2817 Oct 01 j 11:31	15° $\text{♄}$ 43'59	2°23'36
minimum elong	-2823 Jul 22 j 17:17	5° $\text{♄}$ 36'18	0°58'54	minimum elong	-2817 Oct 01 j 11:32	15° $\text{♄}$ 43'59	2°23'38
max. Earth dist.	-2823 Jul 23 j 00:43	5° $\text{♄}$ 38'35	10.56069 AU	max. Earth dist.	-2817 Oct 01 j 03:13	15° $\text{♄}$ 41'33	11.14817 AU
morning rise	-2823 Aug 09 j 03:04	7° $\text{♄}$ 43'54		morning rise	-2817 Oct 17 j 21:20	17° $\text{♄}$ 38'00	
retrograde	-2823 Nov 16 j 21:14	15° $\text{♄}$ 04'06		retrograde	-2816 Jan 25 j 02:59	24° $\text{♄}$ 28'41	
opposition	-2822 Jan 23 j 08:57	11° $\text{♄}$ 43'42	1°29'11	opposition	-2816 Apr 04 j 08:16	21° $\text{♄}$ 12'23	2°52'55
min. Earth dist.	-2822 Jan 23 j 04:16	11° $\text{♄}$ 44'37	8.62878 AU	min. Earth dist.	-2816 Apr 04 j 15:55	21° $\text{♄}$ 10'59	9.16481 AU
direct	-2822 Apr 03 j 11:42	8° $\text{♄}$ 17'31		direct	-2816 Jun 14 j 23:36	17° $\text{♄}$ 52'37	
evening set	-2822 Jul 18 j 05:29	15° $\text{♄}$ 55'32		evening set	-2816 Sep 25 j 02:55	24° $\text{♄}$ 52'17	
conjunction	-2822 Aug 04 j 15:04	18° $\text{♄}$ 01'25	1°25'35	conjunction	-2816 Oct 11 j 13:37	26° $\text{♄}$ 46'22	2°18'56
minimum elong	-2822 Aug 04 j 15:01	18° $\text{♄}$ 01'24	1°25'39	minimum elong	-2816 Oct 11 j 13:38	26° $\text{♄}$ 46'22	2°18'56
max. Earth dist.	-2822 Aug 04 j 19:18	18° $\text{♄}$ 02'42	10.69603 AU	max. Earth dist.	-2816 Oct 11 j 04:11	26° $\text{♄}$ 43'37	11.17073 AU
morning rise	-2822 Aug 21 j 19:24	20° $\text{♄}$ 05'43		morning rise	-2816 Oct 27 j 22:31	28° $\text{♄}$ 39'58	
retrograde	-2822 Nov 29 j 00:42	27° $\text{♄}$ 17'03			-2816 Nov 08 j 21:13	0° $\text{♄}$	
opposition	-2821 Feb 05 j 00:04	23° $\text{♄}$ 58'02	1°59'12	retrograde	-2815 Feb 04 j 16:19	5° $\text{♄}$ 31'28	
min. Earth dist.	-2821 Feb 04 j 21:54	23° $\text{♄}$ 58'27	8.76083 AU	opposition	-2815 Apr 16 j 04:04	2° $\text{♄}$ 14'52	2°44'02
direct	-2821 Apr 16 j 15:23	20° $\text{♄}$ 33'01		min. Earth dist.	-2815 Apr 16 j 12:20	2° $\text{♄}$ 13'21	9.17409 AU
evening set	-2821 Jul 30 j 21:52	28° $\text{♄}$ 02'28			-2815 May 19 j 23:11	30° $\text{♄}$	
	-2821 Aug 16 j 08:33	0° $\text{♄}$		direct	-2815 Jun 26 j 17:37	28° $\text{♄}$ 55'48	
					-2815 Aug 02 j 14:11	0° $\text{♄}$	
conjunction	-2821 Aug 17 j 01:58	0° $\text{♄}$ 05'13	1°47'50	evening set	-2815 Oct 06 j 04:21	5° $\text{♄}$ 53'06	
minimum elong	-2821 Aug 17 j 01:55	0° $\text{♄}$ 05'12	1°47'53				

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 8

Attention, astronomical year style is used: The year -2815 in astronomical counting style is the year 2816 BCE in historical counting style.

conjunction	-2815 Oct 22 j 14:27	7° <del>4</del> 47'07	2°09'06	conjunction	-2809 Dec 29 j 17:25	16° <del>7</del> 42'00	0°-13'-6
minimum elong	-2815 Oct 22 j 14:29	7° <del>4</del> 47'08	2°09'05	minimum elong	-2809 Dec 29 j 17:25	16° <del>7</del> 42'00	0°13'13
max. Earth dist.	-2815 Oct 22 j 04:27	7° <del>4</del> 44'12	11.16700 AU	behind sun begin	-2809 Dec 29 j 13:12	16° <del>7</del> 40'43	
morning rise	-2815 Nov 07 j 23:24	9° <del>4</del> 40'54		behind sun end	-2809 Dec 29 j 21:37	16° <del>7</del> 43'17	
retrograde	-2814 Feb 16 j 06:21	16° <del>4</del> 34'44		max. Earth dist.	-2809 Dec 29 j 07:11	16° <del>7</del> 38'52	10.65657 AU
opposition	-2814 Apr 28 j 00:29	13° <del>4</del> 17'37	2°29'06	morning rise	-2808 Jan 15 j 18:32	18° <del>7</del> 46'55	
min. Earth dist.	-2814 Apr 28 j 09:40	13° <del>4</del> 15'57	9.15685 AU	retrograde	-2808 Apr 29 j 23:32	26° <del>7</del> 26'33	
direct	-2814 Jul 08 j 06:36	9° <del>4</del> 59'05		opposition	-2808 Jul 09 j 10:15	23° <del>7</del> 02'00	0°-35'-22
evening set	-2814 Oct 17 j 05:21	16° <del>4</del> 55'28		min. Earth dist.	-2808 Jul 09 j 17:48	23° <del>7</del> 00'33	8.58774 AU
				direct	-2808 Sep 15 j 16:24	19° <del>7</del> 41'42	
				evening set	-2808 Dec 24 j 09:41	27° <del>7</del> 04'38	
conjunction	-2814 Nov 02 j 15:34	18° <del>4</del> 49'57	1°54'26				
minimum elong	-2814 Nov 02 j 15:37	18° <del>4</del> 49'58	1°54'25				
max. Earth dist.	-2814 Nov 02 j 04:00	18° <del>4</del> 46'34	11.13706 AU	conjunction	-2807 Jan 10 j 09:52	29° <del>7</del> 11'00	0°-43'-31
morning rise	-2814 Nov 19 j 01:40	20° <del>4</del> 44'28		minimum elong	-2807 Jan 10 j 09:50	29° <del>7</del> 10'59	0°43'38
retrograde	-2813 Feb 28 j 00:15	27° <del>4</del> 42'16		max. Earth dist.	-2807 Jan 10 j 01:43	29° <del>7</del> 08'27	10.51948 AU
opposition	-2813 May 09 j 22:59	24° <del>4</del> 24'24	2°08'31		-2807 Jan 16 j 23:08	0° <del>7</del>	
min. Earth dist.	-2813 May 10 j 09:36	24° <del>4</del> 22'27	9.11356 AU	morning rise	-2807 Jan 27 j 14:50	1° <del>7</del> 18'52	
direct	-2813 Jul 19 j 20:57	21° <del>4</del> 06'09		retrograde	-2807 May 13 j 16:21	9° <del>7</del> 09'56	
evening set	-2813 Oct 28 j 07:39	28° <del>4</del> 03'07		opposition	-2807 Jul 22 j 17:24	5° <del>7</del> 43'47	-1°-12'-34
				min. Earth dist.	-2807 Jul 22 j 23:14	5° <del>7</del> 42'39	8.44932 AU
conjunction	-2813 Nov 13 j 18:45	29° <del>4</del> 58'33	1°35'20	direct	-2807 Sep 28 j 09:46	2° <del>7</del> 22'22	
minimum elong	-2813 Nov 13 j 18:48	29° <del>4</del> 58'34	1°35'18	evening set	-2806 Jan 06 j 10:34	9° <del>7</del> 54'40	
max. Earth dist.	-2813 Nov 13 j 06:06	29° <del>4</del> 54'50	11.08180 AU				
	-2813 Nov 13 j 23:39	0° <del>7</del>		conjunction	-2806 Jan 23 j 14:20	12° <del>7</del> 03'56	-1°-12'-38
morning rise	-2813 Nov 30 j 06:51	1° <del>7</del> 54'20		minimum elong	-2806 Jan 23 j 14:17	12° <del>7</del> 03'55	1°12'44
retrograde	-2812 Mar 10 j 23:02	8° <del>7</del> 57'42		max. Earth dist.	-2806 Jan 23 j 08:50	12° <del>7</del> 02'12	10.38065 AU
opposition	-2812 May 21 j 00:36	5° <del>7</del> 38'50	1°42'48	morning rise	-2806 Feb 09 j 23:01	14° <del>7</del> 14'50	
min. Earth dist.	-2812 May 21 j 11:37	5° <del>7</del> 36'48	9.04566 AU	retrograde	-2806 May 27 j 18:48	22° <del>7</del> 17'25	
direct	-2812 Jul 30 j 12:29	2° <del>7</del> 20'39		opposition	-2806 Aug 05 j 07:45	18° <del>7</del> 49'44	-1°-47'-18
evening set	-2812 Nov 07 j 13:13	9° <del>7</del> 19'43		min. Earth dist.	-2806 Aug 05 j 11:10	18° <del>7</del> 49'03	8.31245 AU
				direct	-2806 Oct 11 j 10:36	15° <del>7</del> 27'03	
conjunction	-2812 Nov 24 j 02:06	11° <del>7</del> 16'36	1°12'18	evening set	-2805 Jan 19 j 23:57	23° <del>7</del> 09'37	
minimum elong	-2812 Nov 24 j 02:08	11° <del>7</del> 16'37	1°12'16				
max. Earth dist.	-2812 Nov 23 j 13:59	11° <del>7</del> 13'00	11.00300 AU	conjunction	-2805 Feb 06 j 07:21	25° <del>7</del> 21'51	-1°-38'-44
morning rise	-2812 Dec 10 j 16:45	13° <del>7</del> 14'06		minimum elong	-2805 Feb 06 j 07:18	25° <del>7</del> 21'50	1°38'50
	-2812 Dec 26 j 07:49	15° <del>7</del>		max. Earth dist.	-2805 Feb 06 j 04:15	25° <del>7</del> 20'51	10.24639 AU
retrograde	-2811 Mar 23 j 04:29	20° <del>7</del> 24'35		morning rise	-2805 Feb 23 j 19:44	27° <del>7</del> 35'44	
opposition	-2811 Jun 02 j 06:18	17° <del>7</del> 04'29	1°12'36		-2805 Mar 15 j 15:36	0° <del>7</del>	
min. Earth dist.	-2811 Jun 02 j 16:33	17° <del>7</del> 02'35	8.95549 AU	retrograde	-2805 Jun 11 j 05:54	5° <del>7</del> 49'19	
	-2811 Jul 02 j 11:45	15° <del>7</del>		opposition	-2805 Aug 19 j 05:32	2° <del>7</del> 20'18	-2°-17'-19
direct	-2811 Aug 11 j 07:03	13° <del>7</del> 46'09		min. Earth dist.	-2805 Aug 19 j 06:29	2° <del>7</del> 20'06	8.18383 AU
	-2811 Sep 18 j 22:32	15° <del>7</del>			-2805 Sep 20 j 07:49	30° <del>7</del>	
evening set	-2811 Nov 18 j 23:55	20° <del>7</del> 48'52		direct	-2805 Oct 24 j 20:33	28° <del>7</del> 56'17	
					-2805 Nov 27 j 18:27	0° <del>7</del>	
conjunction	-2811 Dec 05 j 15:10	22° <del>7</del> 47'40	0°45'58	evening set	-2804 Feb 03 j 02:02	6° <del>7</del> 49'27	
minimum elong	-2811 Dec 05 j 15:12	22° <del>7</del> 47'40	0°45'55				
max. Earth dist.	-2811 Dec 05 j 03:58	22° <del>7</del> 44'18	10.90329 AU	conjunction	-2804 Feb 20 j 13:10	9° <del>7</del> 04'35	-2°00'-1
morning rise	-2811 Dec 22 j 08:53	24° <del>7</del> 47'17		minimum elong	-2804 Feb 20 j 13:07	9° <del>7</del> 04'34	2°00'06
	-2810 Feb 11 j 21:22	0° <del>7</del>		max. Earth dist.	-2804 Feb 20 j 12:33	9° <del>7</del> 04'23	10.12422 AU
retrograde	-2810 Apr 04 j 19:19	2° <del>7</del> 06'19		morning rise	-2804 Mar 09 j 05:15	11° <del>7</del> 21'20	
	-2810 May 28 j 13:41	30° <del>7</del>			-2804 Apr 08 j 16:14	15° <del>7</del>	
opposition	-2810 Jun 14 j 17:13	28° <del>7</del> 44'50	0°38'44	retrograde	-2804 Jun 25 j 00:30	19° <del>7</del> 44'27	
min. Earth dist.	-2810 Jun 15 j 02:25	28° <del>7</del> 43'06	8.84615 AU	opposition	-2804 Sep 01 j 09:59	16° <del>7</del> 14'21	-2°-40'-17
direct	-2810 Aug 23 j 04:40	25° <del>7</del> 26'06		min. Earth dist.	-2804 Sep 01 j 08:37	16° <del>7</del> 14'38	8.07155 AU
	-2810 Nov 08 j 01:17	0° <del>7</del>			-2804 Sep 16 j 23:26	15° <del>7</del>	
evening set	-2810 Nov 30 j 17:51	2° <del>7</del> 34'03		direct	-2804 Nov 06 j 15:16	12° <del>7</del> 48'56	
					-2804 Dec 25 j 17:33	15° <del>7</del>	
conjunction	-2810 Dec 17 j 11:42	4° <del>7</del> 35'05	0°17'11	evening set	-2803 Feb 16 j 16:23	20° <del>7</del> 52'18	
minimum elong	-2810 Dec 17 j 11:43	4° <del>7</del> 35'05	0°17'06				
max. Earth dist.	-2810 Dec 17 j 00:41	4° <del>7</del> 31'45	10.78626 AU	conjunction	-2803 Mar 06 j 07:21	23° <del>7</del> 10'05	-2°-14'-44
morning rise	-2809 Jan 03 j 08:57	6° <del>7</del> 37'14		minimum elong	-2803 Mar 06 j 07:19	23° <del>7</del> 10'04	2°14'47
retrograde	-2809 Apr 17 j 17:26	14° <del>7</del> 06'02		max. Earth dist.	-2803 Mar 06 j 09:23	23° <del>7</del> 10'45	10.02256 AU
opposition	-2809 Jun 27 j 10:17	10° <del>7</del> 43'04	0°02'17	morning rise	-2803 Mar 24 j 02:57	25° <del>7</del> 29'21	
min. Earth dist.	-2809 Jun 27 j 18:50	10° <del>7</del> 41'27	8.72186 AU		-2803 May 01 j 06:28	0° <del>7</del>	
desc. node	-2809 Jul 20 j 13:19	9° <del>7</del> 02'41		retrograde	-2803 Jul 10 j 00:01	3° <del>7</del> 59'25	
direct	-2809 Sep 04 j 05:56	7° <del>7</del> 23'41		opposition	-2803 Sep 15 j 19:38	0° <del>7</del> 28'35	-2°-54'-5
evening set	-2809 Dec 12 j 20:37	14° <del>7</del> 38'26		min. Earth dist.	-2803 Sep 15 j 16:17	0° <del>7</del> 29'17	7.98359 AU

Attention, astronomical year style is used: The year -2803 in astronomical counting style is the year 2804 BCE in historical counting style.

	-2803 Sep 21 j 14:35	30°R $\approx$		morning rise	-2797 Jun 23 j 20:14	22°R $\approx$ 22'29"	
direct	-2803 Nov 20 j 18:59	27°R $\approx$ 01'47"			-2797 Sep 14 j 19:20	0°II	
	-2802 Jan 17 j 11:28	0°K		retrograde	-2797 Oct 04 j 15:26	0°II22'03"	
evening set	-2802 Mar 03 j 17:04	5°K13'58"			-2797 Oct 24 j 11:10	30°R $\approx$	
				opposition	-2797 Dec 10 j 02:26	26°R $\approx$ 55'18"	0°-44'-50"
conjunction	-2802 Mar 21 j 11:53	7°K33'58"	-2°-21'-25"	min. Earth dist.	-2797 Dec 09 j 16:08	26°R $\approx$ 57'25"	8.15420 AU
minimum elong	-2802 Mar 21 j 11:52	7°K33'58"	2°21'28"	direct	-2796 Feb 16 j 00:39	23°R $\approx$ 25'24"	
max. Earth dist.	-2802 Mar 21 j 17:02	7°K35'40"	9.94887 AU		-2796 May 19 j 13:28	0°II	
morning rise	-2802 Apr 08 j 10:38	9°K55'14"		evening set	-2796 Jun 01 j 08:52	1°II33'55"	
retrograde	-2802 Jul 25 j 01:34	18°K28'52"					
opposition	-2802 Sep 30 j 08:55	14°K57'41"	-2°-57'-8"	conjunction	-2796 Jun 19 j 10:40	3°II51'10"	0°-19'-11"
min. Earth dist.	-2802 Sep 30 j 03:30	14°K58'49"	7.92635 AU	minimum elong	-2796 Jun 19 j 10:41	3°II51'10"	0°19'07"
direct	-2802 Dec 05 j 06:49	11°K29'40"		max. Earth dist.	-2796 Jun 19 j 23:39	3°II55'17"	10.21580 AU
evening set	-2801 Mar 19 j 01:08	19°K48'23"		morning rise	-2796 Jul 07 j 08:39	6°II07'11"	
				retrograde	-2796 Oct 17 j 01:30	13°II54'32"	
conjunction	-2801 Apr 05 j 23:38	22°K10'01"	-2°-19'-14"	opposition	-2796 Dec 22 j 17:47	10°II29'32"	0°-3'-25"
minimum elong	-2801 Apr 05 j 23:39	22°K10'02"	2°19'15"	min. Earth dist.	-2796 Dec 22 j 08:49	10°II31'21"	8.27988 AU
max. Earth dist.	-2801 Apr 06 j 08:08	22°K12'50"	9.90861 AU	asc. node	-2795 Jan 23 j 06:57	8°II10'07"	
morning rise	-2801 Apr 24 j 01:03	24°K32'35"		direct	-2795 Mar 01 j 08:58	7°II00'16"	
	-2801 Jun 10 j 03:21	0°Y		evening set	-2795 Jun 15 j 16:11	15°II00'27"	
retrograde	-2801 Aug 09 j 01:55	3°Y05'54"					
	-2801 Oct 09 j 22:37	30°R $\approx$		conjunction	-2795 Jul 03 j 14:12	17°II14'36"	0°14'02"
opposition	-2801 Oct 14 j 23:26	29°K34'49"	-2°-48'-46"	minimum elong	-2795 Jul 03 j 14:12	17°II14'35"	0°14'08"
min. Earth dist.	-2801 Oct 14 j 15:53	29°K36'23"	7.90396 AU	behind sun begin	-2795 Jul 03 j 10:47	17°II13'32"	
direct	-2801 Dec 20 j 01:04	26°K05'46"		behind sun end	-2795 Jul 03 j 17:36	17°II15'39"	
	-2800 Feb 25 j 04:03	0°Y		max. Earth dist.	-2795 Jul 04 j 00:54	17°II17'57"	10.34841 AU
evening set	-2800 Apr 02 j 13:33	4°Y28'12"		morning rise	-2795 Jul 21 j 07:47	19°II27'19"	
				retrograde	-2795 Oct 30 j 00:57	27°II02'52"	
conjunction	-2800 Apr 20 j 15:15	6°Y50'44"	-2°-8'-4"	opposition	-2794 Jan 05 j 01:36	23°II39'36"	0°36'52"
minimum elong	-2800 Apr 20 j 15:18	6°Y50'45"	2°08'04"	min. Earth dist.	-2794 Jan 04 j 18:00	23°II41'07"	8.41728 AU
max. Earth dist.	-2800 Apr 21 j 02:33	6°Y54'28"	9.90466 AU	direct	-2794 Mar 15 j 09:14	20°II11'17"	
morning rise	-2800 May 08 j 18:31	9°Y13'44"		evening set	-2794 Jun 29 j 11:56	28°II02'27"	
retrograde	-2800 Aug 22 j 21:38	17°Y42'47"			-2794 Jul 15 j 10:34	0°S	
opposition	-2800 Oct 28 j 12:44	14°Y12'15"	-2°-29'-25"				
min. Earth dist.	-2800 Oct 28 j 03:23	14°Y14'12"	7.91792 AU	conjunction	-2794 Jul 17 j 05:16	0°S13'13"	0°45'35"
direct	-2799 Jan 02 j 21:31	10°Y42'29"		minimum elong	-2794 Jul 17 j 05:14	0°S13'13"	0°45'40"
evening set	-2799 Apr 18 j 02:25	19°Y05'31"		max. Earth dist.	-2794 Jul 17 j 13:22	0°S15'44"	10.48878 AU
				morning rise	-2794 Aug 03 j 17:44	2°S22'27"	
conjunction	-2799 May 06 j 06:21	21°Y28'03"	-1°-48'-43"	retrograde	-2794 Nov 11 j 16:37	9°S47'07"	
minimum elong	-2799 May 06 j 06:25	21°Y28'05"	1°48'42"	opposition	-2793 Jan 18 j 01:50	6°S25'32"	1°13'59"
max. Earth dist.	-2799 May 06 j 19:42	21°Y32'27"	9.93707 AU	min. Earth dist.	-2793 Jan 17 j 19:20	6°S26'49"	8.55903 AU
morning rise	-2799 May 24 j 10:20	23°Y50'34"		direct	-2793 Mar 29 j 00:11	2°S58'23"	
	-2799 Jul 18 j 22:35	0°S		evening set	-2793 Jul 12 j 19:58	10°S40'23"	
retrograde	-2799 Sep 06 j 11:39	2°S11'59"					
	-2799 Oct 27 j 01:35	30°R $\approx$		conjunction	-2793 Jul 30 j 08:07	12°S47'46"	1°14'04"
opposition	-2799 Nov 11 j 22:53	28°Y42'24"	-2°00'-40"	minimum elong	-2793 Jul 30 j 08:04	12°S47'45"	1°14'09"
min. Earth dist.	-2799 Nov 11 j 12:12	28°Y44'37"	7.96701 AU	max. Earth dist.	-2793 Jul 30 j 14:11	12°S49'37"	10.62969 AU
direct	-2798 Jan 17 j 17:44	25°Y12'15"		morning rise	-2793 Aug 16 j 15:04	14°S53'34"	
	-2798 Apr 04 j 02:53	0°S		retrograde	-2793 Nov 24 j 00:17	22°S08'37"	
evening set	-2798 May 03 j 11:48	3°S32'49"		opposition	-2792 Jan 30 j 19:19	18°S48'37"	1°46'26"
				min. Earth dist.	-2792 Jan 30 j 14:26	18°S49'34"	8.69805 AU
conjunction	-2798 May 21 j 16:36	5°S54'25"	-1°-22'-43"	direct	-2792 Apr 10 j 06:27	15°S22'47"	
minimum elong	-2798 May 21 j 16:40	5°S54'26"	1°22'41"	evening set	-2792 Jul 24 j 16:48	22°S55'54"	
max. Earth dist.	-2798 May 22 j 07:12	5°S59'11"	10.00324 AU				
morning rise	-2798 Jun 08 j 19:57	8°S15'32"		conjunction	-2792 Aug 10 j 23:31	25°S00'01"	1°38'24"
	-2798 Aug 11 j 23:14	15°S		minimum elong	-2792 Aug 10 j 23:28	25°S00'00"	1°38'29"
retrograde	-2798 Sep 20 j 18:06	16°S26'47"		max. Earth dist.	-2792 Aug 11 j 03:38	25°S01'16"	10.76444 AU
	-2798 Oct 31 j 00:21	15°R $\approx$		morning rise	-2792 Aug 28 j 00:56	27°S02'37"	
opposition	-2798 Nov 26 j 03:56	12°S58'29"	-1°-24'-52"		-2792 Sep 23 j 13:15	0°S	
min. Earth dist.	-2798 Nov 25 j 16:52	13°S00'46"	8.04762 AU	retrograde	-2792 Dec 05 j 01:41	4°S09'33"	
direct	-2797 Feb 01 j 11:24	9°S28'18"		opposition	-2791 Feb 11 j 06:49	0°S50'59"	2°13'09"
	-2797 Apr 26 j 03:07	15°S		min. Earth dist.	-2791 Feb 11 j 04:21	0°S51'27"	8.82813 AU
evening set	-2797 May 18 j 14:48	17°S43'48"			-2791 Feb 22 j 12:52	30°R $\approx$	
				direct	-2791 Apr 23 j 04:46	27°S26'31"	
conjunction	-2797 Jun 05 j 18:54	20°S03'36"	0°-52'-8"		-2791 Jun 19 j 23:16	0°S	
minimum elong	-2797 Jun 05 j 18:57	20°S03'37"	0°52'04"	evening set	-2791 Aug 06 j 03:13	4°S51'18"	
max. Earth dist.	-2797 Jun 06 j 09:24	20°S08'17"	10.09831 AU				

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 10

Attention, astronomical year style is used: The year -2791 in astronomical counting style is the year 2792 BCE in historical counting style.

conjunction	-2791 Aug 23 j 04:37	6°Ω52'29	1°57'52	conjunction	-2785 Oct 29 j 03:11	14°♄09'03	2°01'27
minimum elong	-2791 Aug 23 j 04:34	6°Ω52'28	1°57'56	minimum elong	-2785 Oct 29 j 03:13	14°♄09'04	2°01'25
max. Earth dist.	-2791 Aug 23 j 05:59	6°Ω52'54	10.88738 AU	max. Earth dist.	-2785 Oct 28 j 15:01	14°♄05'30	11.16593 AU
morning rise	-2791 Sep 09 j 01:03	8°Ω52'14		morning rise	-2785 Nov 14 j 12:41	16°♄03'05	
	-2791 Nov 14 j 17:33	15°Ω		retrograde	-2784 Feb 23 j 03:56	22°♄58'43	
retrograde	-2791 Dec 16 j 20:53	15°Ω52'39		opposition	-2784 May 04 j 00:34	19°♄41'40	2°18'12
	-2790 Jan 18 j 13:59	15°♌Ω		min. Earth dist.	-2784 May 04 j 11:16	19°♄39'42	9.14666 AU
opposition	-2790 Feb 23 j 13:08	12°Ω35'15	2°33'32	direct	-2784 Jul 14 j 03:28	16°♄23'42	
min. Earth dist.	-2790 Feb 23 j 13:31	12°Ω35'10	8.94398 AU	evening set	-2784 Oct 22 j 18:50	23°♄20'08	
direct	-2790 May 05 j 18:36	9°Ω12'09					
	-2790 Aug 04 j 23:35	15°Ω		conjunction	-2784 Nov 08 j 05:33	25°♄15'02	1°44'17
evening set	-2790 Aug 18 j 04:12	16°Ω29'24		minimum elong	-2784 Nov 08 j 05:35	25°♄15'03	1°44'15
				max. Earth dist.	-2784 Nov 07 j 17:05	25°♄11'23	11.11810 AU
conjunction	-2790 Sep 04 j 00:46	18°Ω28'03	2°12'02	morning rise	-2784 Nov 24 j 16:30	27°♄10'07	
minimum elong	-2790 Sep 04 j 00:44	18°Ω28'03	2°12'06		-2784 Dec 20 j 18:19	0°♌	
max. Earth dist.	-2790 Sep 03 j 22:40	18°Ω27'26	10.99375 AU	retrograde	-2783 Mar 06 j 02:04	4°♌10'45	
morning rise	-2790 Sep 20 j 17:06	20°Ω25'28		opposition	-2783 May 16 j 00:54	0°♌52'41	1°54'45
retrograde	-2790 Dec 28 j 10:40	27°Ω21'00		min. Earth dist.	-2783 May 16 j 12:02	0°♌50'38	9.08515 AU
opposition	-2789 Mar 07 j 15:10	24°Ω04'26	2°47'17		-2783 May 28 j 03:32	30°♌♄	
min. Earth dist.	-2789 Mar 07 j 17:32	24°Ω04'00	9.04101 AU	direct	-2783 Jul 25 j 17:44	27°♄34'47	
direct	-2789 May 18 j 03:12	20°Ω42'38			-2783 Sep 19 j 08:51	0°♌	
evening set	-2789 Aug 29 j 21:16	27°Ω53'20		evening set	-2783 Nov 02 j 23:05	4°♌32'44	
conjunction	-2789 Sep 15 j 13:51	29°Ω49'56	2°20'43	conjunction	-2783 Nov 19 j 11:08	6°♌28'55	1°22'56
minimum elong	-2789 Sep 15 j 13:50	29°Ω49'56	2°20'45	minimum elong	-2783 Nov 19 j 11:11	6°♌28'56	1°22'54
max. Earth dist.	-2789 Sep 15 j 09:30	29°Ω48'40	11.07951 AU	max. Earth dist.	-2783 Nov 18 j 21:34	6°♌24'55	11.04472 AU
	-2789 Sep 17 j 00:09	0°♐		morning rise	-2783 Dec 06 j 00:29	8°♌25'34	
morning rise	-2789 Oct 02 j 02:46	1°♐45'30			-2782 Feb 20 j 03:28	15°♌	
retrograde	-2788 Jan 09 j 00:15	8°♐37'48		retrograde	-2782 Mar 18 j 04:02	15°♌32'43	
opposition	-2788 Mar 18 j 13:59	5°♐21'46	2°54'17		-2782 Apr 13 j 12:54	15°♌♌	
min. Earth dist.	-2788 Mar 18 j 17:50	5°♐21'03	9.11558 AU	opposition	-2782 May 28 j 04:49	12°♌13'23	1°26'29
direct	-2788 May 29 j 06:07	2°♐01'09		min. Earth dist.	-2782 May 28 j 16:41	12°♌11'11	8.99943 AU
evening set	-2788 Sep 09 j 07:49	9°♐06'20		direct	-2782 Aug 06 j 10:00	8°♌55'14	
					-2782 Nov 06 j 03:54	15°♌	
conjunction	-2788 Sep 25 j 21:23	11°♐01'29	2°23'51	evening set	-2782 Nov 14 j 07:35	15°♌56'18	
minimum elong	-2788 Sep 25 j 21:23	11°♐01'29	2°23'53				
max. Earth dist.	-2788 Sep 25 j 15:37	10°♐59'48	11.14158 AU	conjunction	-2782 Nov 30 j 21:36	17°♌54'13	0°58'00
morning rise	-2788 Oct 12 j 07:47	12°♐55'46		minimum elong	-2782 Nov 30 j 21:38	17°♌54'14	0°57'57
retrograde	-2787 Jan 19 j 11:33	19°♐46'25		max. Earth dist.	-2782 Nov 30 j 07:26	17°♌49'59	10.94868 AU
opposition	-2787 Mar 30 j 10:56	16°♐30'36	2°54'39	morning rise	-2782 Dec 17 j 13:59	19°♌52'53	
min. Earth dist.	-2787 Mar 30 j 16:41	16°♐29'33	9.16507 AU	retrograde	-2781 Mar 30 j 13:49	27°♌08'02	
direct	-2787 Jun 10 j 02:31	13°♐11'00		opposition	-2781 Jun 09 j 13:36	23°♌47'12	0°54'10
evening set	-2787 Sep 20 j 13:26	20°♐11'52		min. Earth dist.	-2781 Jun 10 j 01:31	23°♌44'59	8.89280 AU
				direct	-2781 Aug 18 j 06:55	20°♌28'33	
conjunction	-2787 Oct 07 j 00:50	22°♐06'05	2°21'32	evening set	-2781 Nov 25 j 22:02	27°♌34'15	
minimum elong	-2787 Oct 07 j 00:51	22°♐06'05	2°21'33				
max. Earth dist.	-2787 Oct 06 j 16:45	22°♐03'43	11.17766 AU	conjunction	-2781 Dec 12 j 14:39	29°♌34'19	0°30'13
morning rise	-2787 Oct 23 j 09:54	23°♐59'41		minimum elong	-2781 Dec 12 j 14:40	29°♌34'19	0°30'09
	-2787 Dec 29 j 18:29	0°♄		max. Earth dist.	-2781 Dec 12 j 01:50	29°♌30'26	10.83354 AU
retrograde	-2786 Jan 30 j 23:18	0°♄50'19			-2781 Dec 16 j 03:42	0°♄	
	-2786 Mar 04 j 19:16	30°♌♐		morning rise	-2781 Dec 29 j 10:22	1°♄35'22	
opposition	-2786 Apr 11 j 06:55	27°♐34'25	2°48'34	retrograde	-2780 Apr 11 j 07:26	8°♄59'58	
min. Earth dist.	-2786 Apr 11 j 15:16	27°♐32'53	9.18743 AU	opposition	-2780 Jun 21 j 04:03	5°♄37'27	0°18'44
direct	-2786 Jun 21 j 20:18	24°♐15'34		min. Earth dist.	-2780 Jun 21 j 14:31	5°♄35'28	8.76936 AU
	-2786 Sep 20 j 16:46	0°♄		direct	-2780 Aug 29 j 07:45	2°♄18'03	
evening set	-2786 Oct 01 j 16:02	1°♄13'29		evening set	-2780 Dec 06 j 20:39	9°♄29'59	
conjunction	-2786 Oct 18 j 02:09	3°♄07'21	2°13'59	conjunction	-2780 Dec 23 j 16:17	11°♄32'32	0°00'29
minimum elong	-2786 Oct 18 j 02:11	3°♄07'21	2°13'58	minimum elong	-2780 Dec 23 j 16:18	11°♄32'32	0°00'24
max. Earth dist.	-2786 Oct 17 j 15:16	3°♄04'11	11.18605 AU	behind sun begin	-2780 Dec 23 j 09:17	11°♄30'25	
morning rise	-2786 Nov 03 j 11:02	5°♄00'53		behind sun end	-2780 Dec 23 j 23:19	11°♄34'39	
retrograde	-2785 Feb 11 j 10:51	11°♄53'08		max. Earth dist.	-2780 Dec 23 j 05:16	11°♄29'10	10.70370 AU
opposition	-2785 Apr 23 j 02:56	8°♄36'48	2°36'18	desc. node	-2780 Dec 29 j 10:08	12°♄14'41	
min. Earth dist.	-2785 Apr 23 j 13:09	8°♄34'56	9.18129 AU	morning rise	-2779 Jan 09 j 15:36	13°♄36'18	
direct	-2785 Jul 03 j 11:27	5°♄18'30		retrograde	-2779 Apr 24 j 10:56	21°♄11'28	
evening set	-2785 Oct 12 j 17:13	12°♄14'57		opposition	-2779 Jul 04 j 00:51	17°♄47'12	0°-18'-35
				min. Earth dist.	-2779 Jul 04 j 09:21	17°♄45'34	8.63403 AU

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 11

Attention, astronomical year style is used: The year -2779 in astronomical counting style is the year 2780 BCE in historical counting style.

direct	-2779 Sep 10 j 14:46	14° $\mathbb{X}$ 26'52	min. Earth dist.	-2773 Sep 24 j 03:18	8° $\mathbb{X}$ 52'45	7.93527 AU
evening set	-2779 Dec 19 j 05:05	21° $\mathbb{X}$ 46'32	direct	-2773 Nov 29 j 07:49	5° $\mathbb{X}$ 23'37	
			evening set	-2772 Mar 11 j 16:43	13° $\mathbb{X}$ 40'14	
conjunction	-2778 Jan 05 j 03:53	23° $\mathbb{X}$ 51'50	0°-30'-4			
minimum elong	-2778 Jan 05 j 03:52	23° $\mathbb{X}$ 51'49	0°30'10	conjunction	-2772 Mar 29 j 13:47	16° $\mathbb{X}$ 01'24 -2°-21'-18
max. Earth dist.	-2778 Jan 04 j 18:15	23° $\mathbb{X}$ 48'51	10.56449 AU	minimum elong	-2772 Mar 29 j 13:48	16° $\mathbb{X}$ 01'24 2°21'20
morning rise	-2778 Jan 22 j 07:03	25° $\mathbb{X}$ 58'32		max. Earth dist.	-2772 Mar 29 j 23:10	16° $\mathbb{X}$ 04'30 9.91169 AU
	-2778 Feb 27 j 06:20	0° $\mathbb{Z}$		morning rise	-2772 Apr 16 j 14:01	18° $\mathbb{X}$ 23'37
retrograde	-2778 May 08 j 00:40	3° $\mathbb{Z}$ 45'06		retrograde	-2772 Aug 01 j 22:25	26° $\mathbb{X}$ 58'07
opposition	-2778 Jul 17 j 04:54	0° $\mathbb{Z}$ 19'07	0°-56'-15	opposition	-2772 Oct 08 j 00:06	23° $\mathbb{X}$ 26'38 -2°-53'-50
min. Earth dist.	-2778 Jul 17 j 11:31	0° $\mathbb{Z}$ 17'50	8.49250 AU	min. Earth dist.	-2772 Oct 07 j 15:45	23° $\mathbb{X}$ 28'23 7.90111 AU
	-2778 Jul 21 j 07:25	30° $\mathbb{R}$ $\mathbb{X}$		direct	-2772 Dec 12 j 22:48	19° $\mathbb{X}$ 57'51
direct	-2778 Sep 23 j 03:01	26° $\mathbb{X}$ 57'39		evening set	-2771 Mar 27 j 04:09	28° $\mathbb{X}$ 19'25
	-2778 Nov 22 j 02:54	0° $\mathbb{Z}$			-2771 Apr 08 j 22:26	0° $\mathbb{Y}$
evening set	-2777 Jan 01 j 00:42	4° $\mathbb{Z}$ 26'23				
conjunction	-2777 Jan 18 j 02:48	6° $\mathbb{Z}$ 34'35	0°-59'-59	conjunction	-2771 Apr 14 j 04:33	0° $\mathbb{Y}$ 41'46 -2°-13'-59
minimum elong	-2777 Jan 18 j 02:45	6° $\mathbb{Z}$ 34'34	1°00'06	minimum elong	-2771 Apr 14 j 04:35	0° $\mathbb{Y}$ 41'47 2°13'59
max. Earth dist.	-2777 Jan 17 j 18:40	6° $\mathbb{Z}$ 32'01	10.42205 AU	max. Earth dist.	-2771 Apr 14 j 16:27	0° $\mathbb{Y}$ 45'43 9.89559 AU
morning rise	-2777 Feb 04 j 09:55	8° $\mathbb{Z}$ 44'22		morning rise	-2771 May 02 j 07:01	3° $\mathbb{Y}$ 04'47
retrograde	-2777 May 21 j 22:46	16° $\mathbb{Z}$ 42'42		retrograde	-2771 Aug 16 j 21:47	11° $\mathbb{Y}$ 36'36
opposition	-2777 Jul 30 j 16:33	13° $\mathbb{Z}$ 15'05	-1°-32'-24	opposition	-2771 Oct 22 j 14:35	8° $\mathbb{Y}$ 05'41 -2°-39'-6
min. Earth dist.	-2777 Jul 30 j 21:29	13° $\mathbb{Z}$ 14'06	8.35137 AU	min. Earth dist.	-2771 Oct 22 j 04:52	8° $\mathbb{Y}$ 07'43 7.90314 AU
direct	-2777 Oct 06 j 00:23	9° $\mathbb{Z}$ 52'21		direct	-2771 Dec 27 j 18:11	4° $\mathbb{Y}$ 36'14
evening set	-2776 Jan 14 j 08:39	17° $\mathbb{Z}$ 31'11		evening set	-2770 Apr 11 j 17:40	12° $\mathbb{Y}$ 59'42
conjunction	-2776 Jan 31 j 14:21	19° $\mathbb{Z}$ 42'21	-1°-27'-41	conjunction	-2770 Apr 29 j 20:38	15° $\mathbb{Y}$ 22'24 -1°-58'-1
minimum elong	-2776 Jan 31 j 14:18	19° $\mathbb{Z}$ 42'20	1°27'47	minimum elong	-2770 Apr 29 j 20:42	15° $\mathbb{Y}$ 22'25 1°58'00
max. Earth dist.	-2776 Jan 31 j 09:01	19° $\mathbb{Z}$ 40'39	10.28332 AU	max. Earth dist.	-2770 Apr 30 j 10:21	15° $\mathbb{Y}$ 26'56 9.91641 AU
morning rise	-2776 Feb 18 j 01:20	21° $\mathbb{Z}$ 55'13		morning rise	-2770 May 18 j 00:27	17° $\mathbb{Y}$ 45'18
	-2776 May 25 j 11:02	0° $\mathbb{Z}$		retrograde	-2770 Aug 31 j 15:26	26° $\mathbb{Y}$ 10'46
retrograde	-2776 Jun 04 j 05:18	0° $\mathbb{Z}$ 04'59		opposition	-2770 Nov 06 j 02:54	22° $\mathbb{Y}$ 40'51 -2°-14'-7
	-2776 Jun 14 j 00:35	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	-2770 Nov 05 j 16:17	22° $\mathbb{Y}$ 43'04 7.94147 AU
opposition	-2776 Aug 12 j 11:36	26° $\mathbb{Z}$ 35'53	-2°-4'-51	direct	-2769 Jan 11 j 15:18	19° $\mathbb{Y}$ 11'02
min. Earth dist.	-2776 Aug 12 j 14:18	26° $\mathbb{Z}$ 35'21	8.21787 AU	evening set	-2769 Apr 27 j 05:23	27° $\mathbb{Y}$ 33'13
direct	-2776 Oct 18 j 07:56	23° $\mathbb{Z}$ 11'49		conjunction	-2769 May 15 j 09:51	29° $\mathbb{Y}$ 55'22 -1°-34'-38
	-2775 Jan 19 j 01:41	0° $\mathbb{Z}$		minimum elong	-2769 May 15 j 09:54	29° $\mathbb{Y}$ 55'23 1°34'36
evening set	-2775 Jan 27 j 05:26	1° $\mathbb{Z}$ 01'12		max. Earth dist.	-2769 May 16 j 00:27	0° $\mathbb{Z}$ 00'09 9.97271 AU
conjunction	-2775 Feb 13 j 14:57	3° $\mathbb{Z}$ 15'20	-1°-51'-21		-2769 May 16 j 00:00	0° $\mathbb{Z}$
minimum elong	-2775 Feb 13 j 14:54	3° $\mathbb{Z}$ 15'19	1°51'26	morning rise	-2769 Jun 02 j 13:47	2° $\mathbb{Z}$ 17'14
max. Earth dist.	-2775 Feb 13 j 13:13	3° $\mathbb{Z}$ 14'46	10.15568 AU	retrograde	-2769 Sep 15 j 01:34	10° $\mathbb{Z}$ 33'20
morning rise	-2775 Mar 03 j 05:37	5° $\mathbb{Z}$ 31'08		opposition	-2769 Nov 20 j 10:48	7° $\mathbb{Z}$ 04'46 -1°-40'-58
retrograde	-2775 Jun 18 j 20:20	13° $\mathbb{Z}$ 51'09		min. Earth dist.	-2769 Nov 19 j 23:46	7° $\mathbb{Z}$ 07'03 8.01334 AU
opposition	-2775 Aug 26 j 13:35	10° $\mathbb{Z}$ 20'51	-2°-31'-16	direct	-2768 Jan 26 j 11:44	3° $\mathbb{Z}$ 34'54
min. Earth dist.	-2775 Aug 26 j 13:25	10° $\mathbb{Z}$ 20'53	8.09931 AU	evening set	-2768 May 11 j 12:08	11° $\mathbb{Z}$ 52'59
direct	-2775 Oct 31 j 23:45	6° $\mathbb{Z}$ 55'27		conjunction	-2768 May 29 j 16:36	14° $\mathbb{Z}$ 13'37 -1°-5'-44
evening set	-2774 Feb 10 j 14:45	14° $\mathbb{Z}$ 55'11		minimum elong	-2768 May 29 j 16:39	14° $\mathbb{Z}$ 13'38 1°05'40
	-2774 Feb 11 j 05:46	15° $\mathbb{Z}$		max. Earth dist.	-2768 May 30 j 07:09	14° $\mathbb{Z}$ 18'20 10.06026 AU
conjunction	-2774 Feb 28 j 04:09	17° $\mathbb{Z}$ 12'04	-2°-9'-11		-2768 Jun 04 j 15:41	15° $\mathbb{Z}$
minimum elong	-2774 Feb 28 j 04:06	17° $\mathbb{Z}$ 12'03	2°09'15	morning rise	-2768 Jun 16 j 19:09	16° $\mathbb{Z}$ 33'33
max. Earth dist.	-2774 Feb 28 j 06:25	17° $\mathbb{Z}$ 12'49	10.04660 AU	retrograde	-2768 Sep 28 j 02:16	24° $\mathbb{Z}$ 38'18
morning rise	-2774 Mar 17 j 22:13	19° $\mathbb{Z}$ 30'30		opposition	-2768 Dec 03 j 12:35	21° $\mathbb{Z}$ 11'18 -1°-2'-23
retrograde	-2774 Jul 03 j 18:23	27° $\mathbb{Z}$ 58'38		min. Earth dist.	-2768 Dec 03 j 01:20	21° $\mathbb{Z}$ 13'37 8.11355 AU
opposition	-2774 Sep 09 j 21:23	24° $\mathbb{Z}$ 27'30	-2°-49'-21	direct	-2767 Feb 09 j 04:40	17° $\mathbb{Z}$ 41'43
min. Earth dist.	-2774 Sep 09 j 18:03	24° $\mathbb{Z}$ 28'11	8.00294 AU	evening set	-2767 May 26 j 10:45	25° $\mathbb{Z}$ 53'22
direct	-2774 Nov 14 j 23:42	21° $\mathbb{Z}$ 00'49		conjunction	-2767 Jun 13 j 13:39	28° $\mathbb{Z}$ 11'41 0°-33'-30
evening set	-2773 Feb 25 j 11:16	29° $\mathbb{Z}$ 09'55		minimum elong	-2767 Jun 13 j 13:41	28° $\mathbb{Z}$ 11'42 0°33'26
	-2773 Mar 03 j 21:19	0° $\mathbb{X}$		max. Earth dist.	-2767 Jun 14 j 03:36	28° $\mathbb{Z}$ 16'09 10.17268 AU
conjunction	-2773 Mar 15 j 04:33	1° $\mathbb{X}$ 29'12	-2°-19'-33		-2767 Jun 27 j 17:20	0° $\mathbb{I}$
minimum elong	-2773 Mar 15 j 04:32	1° $\mathbb{X}$ 29'11	2°19'36	morning rise	-2767 Jul 01 j 13:20	0° $\mathbb{I}$ 28'57
max. Earth dist.	-2773 Mar 15 j 10:42	1° $\mathbb{X}$ 31'13	9.96330 AU	retrograde	-2767 Oct 11 j 16:53	8° $\mathbb{I}$ 21'26
morning rise	-2773 Apr 02 j 01:51	3° $\mathbb{X}$ 49'49		opposition	-2767 Dec 17 j 07:21	4° $\mathbb{I}$ 56'09 0°-21'-14
retrograde	-2773 Jul 18 j 20:06	12° $\mathbb{X}$ 23'01		min. Earth dist.	-2767 Dec 16 j 20:36	4° $\mathbb{I}$ 58'20 8.23501 AU
opposition	-2773 Sep 24 j 09:34	8° $\mathbb{X}$ 51'27	-2°-57'-14	direct	-2766 Feb 23 j 15:44	1° $\mathbb{I}$ 27'08
				evening set	-2766 Jun 09 j 22:56	9° $\mathbb{I}$ 30'42

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 12

Attention, astronomical year style is used: The year -2766 in astronomical counting style is the year 2767 BCE in historical counting style.

conjunction	-2766 Jun 27 j 22:47	11°II46'07	0°00'-10	conjunction	-2760 Sep 10 j 03:02	25°Q17'14	2°17'42
minimum elong	-2766 Jun 27 j 22:49	11°II46'07	0°00'06	minimum elong	-2760 Sep 10 j 03:00	25°Q17'14	2°17'45
behind sun begin	-2766 Jun 27 j 15:50	11°II43'57		max. Earth dist.	-2760 Sep 09 j 23:12	25°Q16'07	11.03456 AU
behind sun end	-2766 Jun 28 j 05:47	11°II48'18		morning rise	-2760 Sep 26 j 17:14	27°Q13'39	
max. Earth dist.	-2766 Jun 28 j 11:19	11°II50'03	10.30195 AU		-2760 Oct 22 j 03:02	0°np	
asc. node	-2766 Jun 29 j 22:10	12°II01'04		retrograde	-2759 Jan 03 j 14:05	4°np07'38	
morning rise	-2766 Jul 15 j 18:24	14°II00'11		opposition	-2759 Mar 13 j 22:20	0°np51'10	2°52'11
retrograde	-2766 Oct 24 j 22:15	21°II40'33		min. Earth dist.	-2759 Mar 14 j 02:59	0°np50'19	9.07332 AU
opposition	-2766 Dec 30 j 18:28	18°II17'00	0°19'48		-2759 Mar 25 j 13:00	30°RQ	
min. Earth dist.	-2766 Dec 30 j 09:22	18°II18'49	8.36929 AU	direct	-2759 May 24 j 12:21	27°Q29'44	
direct	-2765 Mar 09 j 18:08	14°II48'47			-2759 Jul 21 j 03:33	0°np	
evening set	-2765 Jun 24 j 00:01	22°II43'34		evening set	-2759 Sep 04 j 22:08	4°np37'42	
conjunction	-2765 Jul 11 j 19:38	24°II55'44	0°32'18	conjunction	-2759 Sep 21 j 12:54	6°np33'35	2°23'12
minimum elong	-2765 Jul 11 j 19:37	24°II55'44	0°32'23	minimum elong	-2759 Sep 21 j 12:53	6°np33'34	2°23'15
max. Earth dist.	-2765 Jul 12 j 05:35	24°II58'50	10.43948 AU	max. Earth dist.	-2759 Sep 21 j 06:06	6°np31'35	11.10265 AU
morning rise	-2765 Jul 29 j 10:15	27°II06'23		morning rise	-2759 Oct 08 j 00:25	8°np28'31	
	-2765 Aug 23 j 09:45	0°S		retrograde	-2758 Jan 14 j 23:41	15°np20'12	
retrograde	-2765 Nov 06 j 18:38	4°S35'26		opposition	-2758 Mar 25 j 20:08	12°np03'56	2°55'24
opposition	-2764 Jan 12 j 22:02	1°S13'38	0°58'29	min. Earth dist.	-2758 Mar 26 j 02:48	12°np02'43	9.12986 AU
min. Earth dist.	-2764 Jan 12 j 15:36	1°S14'54	8.50828 AU	direct	-2758 Jun 05 j 11:42	8°np43'24	
	-2764 Jan 28 j 19:51	30°RII		evening set	-2758 Sep 16 j 05:51	15°np46'39	
direct	-2764 Mar 22 j 12:16	27°II46'27		conjunction	-2758 Oct 02 j 18:07	17°np41'23	2°23'12
	-2764 May 14 j 05:43	0°S		minimum elong	-2758 Oct 02 j 18:07	17°np41'23	2°23'14
evening set	-2764 Jul 06 j 13:33	5°S32'17		max. Earth dist.	-2758 Oct 02 j 09:24	17°np38'50	11.14664 AU
conjunction	-2764 Jul 24 j 04:01	7°S41'06	1°02'16	morning rise	-2758 Oct 19 j 03:53	19°np35'25	
minimum elong	-2764 Jul 24 j 03:58	7°S41'05	1°02'20	retrograde	-2757 Jan 26 j 11:44	26°np26'28	
max. Earth dist.	-2764 Jul 24 j 10:36	7°S43'07	10.57802 AU	opposition	-2757 Apr 06 j 16:27	23°np10'07	2°52'02
morning rise	-2764 Aug 10 j 13:16	9°S48'19		min. Earth dist.	-2757 Apr 06 j 23:59	23°np08'44	9.16118 AU
retrograde	-2764 Nov 18 j 05:05	17°S07'20		direct	-2757 Jun 17 j 08:46	19°np50'23	
opposition	-2763 Jan 24 j 18:46	13°S47'08	1°33'06	evening set	-2757 Sep 27 j 09:38	26°np50'07	
min. Earth dist.	-2763 Jan 24 j 14:54	13°S47'53	8.64559 AU	conjunction	-2757 Oct 13 j 20:24	28°np44'17	2°17'51
direct	-2763 Apr 04 j 23:11	10°S21'06		minimum elong	-2757 Oct 13 j 20:26	28°np44'18	2°17'51
evening set	-2763 Jul 19 j 15:30	17°S58'06		max. Earth dist.	-2757 Oct 13 j 11:05	28°np41'34	11.16501 AU
conjunction	-2763 Aug 06 j 00:27	20°S03'36	1°28'30		-2757 Oct 24 j 16:55	0°S	
minimum elong	-2763 Aug 06 j 00:23	20°S03'35	1°28'34	morning rise	-2757 Oct 30 j 05:16	0°S37'59	
max. Earth dist.	-2763 Aug 06 j 03:27	20°S04'31	10.71184 AU	retrograde	-2756 Feb 07 j 00:36	7°S30'00	
morning rise	-2763 Aug 23 j 04:19	22°S07'34		opposition	-2756 Apr 17 j 12:36	4°S13'18	2°42'21
retrograde	-2763 Nov 30 j 08:23	29°S18'01		min. Earth dist.	-2756 Apr 17 j 21:13	4°S11'44	9.16630 AU
opposition	-2762 Feb 06 j 09:07	25°S59'10	2°02'24	direct	-2756 Jun 28 j 00:08	0°S54'14	
min. Earth dist.	-2762 Feb 06 j 07:06	25°S59'34	8.77561 AU	evening set	-2756 Oct 07 j 11:23	7°S51'48	
direct	-2762 Apr 18 j 02:46	22°S34'20		conjunction	-2756 Oct 23 j 21:29	9°S45'57	2°07'23
	-2762 Jul 31 j 20:44	0°Q		minimum elong	-2756 Oct 23 j 21:32	9°S45'58	2°07'22
evening set	-2762 Aug 01 j 06:40	0°Q02'55		max. Earth dist.	-2756 Oct 23 j 10:42	9°S42'48	11.15728 AU
conjunction	-2762 Aug 18 j 10:18	2°Q05'22	1°50'09	morning rise	-2756 Nov 09 j 06:37	11°S39'54	
minimum elong	-2762 Aug 18 j 10:15	2°Q05'21	1°50'12	retrograde	-2755 Feb 17 j 15:14	18°S34'29	
max. Earth dist.	-2762 Aug 18 j 10:43	2°Q05'30	10.83566 AU	opposition	-2755 Apr 29 j 09:44	15°S17'13	2°26'39
morning rise	-2762 Sep 04 j 09:01	4°Q06'22		min. Earth dist.	-2755 Apr 29 j 19:51	15°S15'22	9.14522 AU
retrograde	-2762 Dec 12 j 06:32	11°Q09'44		direct	-2755 Jul 09 j 14:54	11°S58'35	
opposition	-2761 Feb 18 j 17:39	7°Q51'58	2°25'36	evening set	-2755 Oct 18 j 12:45	18°S55'26	
min. Earth dist.	-2761 Feb 18 j 17:18	7°Q52'01	8.89310 AU	conjunction	-2755 Nov 03 j 23:03	20°S50'07	1°52'07
direct	-2761 Apr 30 j 20:30	4°Q28'20		minimum elong	-2755 Nov 03 j 23:06	20°S50'08	1°52'05
evening set	-2761 Aug 13 j 12:00	11°Q49'08		max. Earth dist.	-2755 Nov 03 j 10:35	20°S46'28	11.12374 AU
conjunction	-2761 Aug 30 j 10:46	13°Q48'56	2°06'38	morning rise	-2755 Nov 20 j 09:31	22°S44'52	
minimum elong	-2761 Aug 30 j 10:43	13°Q48'55	2°06'42	retrograde	-2754 Mar 01 j 09:50	29°S43'37	
max. Earth dist.	-2761 Aug 30 j 09:18	13°Q48'30	10.94458 AU	opposition	-2754 May 11 j 08:53	26°S25'32	2°05'21
	-2761 Sep 09 j 10:48	15°Q		min. Earth dist.	-2754 May 11 j 19:58	26°S23'30	9.09850 AU
morning rise	-2761 Sep 16 j 04:47	15°Q47'23		direct	-2754 Jul 21 j 05:55	23°S07'09	
retrograde	-2761 Dec 23 j 23:33	22°Q45'15			-2754 Oct 28 j 23:09	0°M	
opposition	-2760 Mar 01 j 21:47	19°Q28'16	2°42'15	evening set	-2754 Oct 29 j 15:43	0°M04'46	
min. Earth dist.	-2760 Mar 01 j 23:44	19°Q27'54	8.99352 AU	conjunction	-2754 Nov 15 j 03:08	2°M00'28	1°32'27
direct	-2760 May 12 j 07:42	16°Q05'48		minimum elong	-2754 Nov 15 j 03:11	2°M00'29	1°32'24
evening set	-2760 Aug 24 j 08:38	23°Q19'40					



## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 13

Attention, astronomical year style is used: The year -2754 in astronomical counting style is the year 2755 BCE in historical counting style.

max. Earth dist.	-2754 Nov 14 j 14:40	1° $\mathbb{M}$ 56'48	11.06523 AU	minimum elong	-2747 Jan 25 j 06:54	14° $\mathbb{Z}$ 24'08	1°16'29
morning rise	-2754 Dec 01 j 15:32	3° $\mathbb{M}$ 56'32		max. Earth dist.	-2747 Jan 25 j 02:29	14° $\mathbb{Z}$ 22'44	10.36064 AU
retrograde	-2753 Mar 13 j 09:24	11° $\mathbb{M}$ 01'03		morning rise	-2747 Feb 11 j 16:00	16° $\mathbb{Z}$ 35'27	
opposition	-2753 May 23 j 11:09	7° $\mathbb{M}$ 41'54	1°39'00	retrograde	-2747 May 29 j 13:51	24° $\mathbb{Z}$ 39'38	
min. Earth dist.	-2753 May 23 j 21:49	7° $\mathbb{M}$ 39'56	9.02756 AU	opposition	-2747 Aug 07 j 01:15	21° $\mathbb{Z}$ 11'44	-1°-51'-41
direct	-2753 Aug 01 j 22:16	4° $\mathbb{M}$ 23'35		min. Earth dist.	-2747 Aug 07 j 03:29	21° $\mathbb{Z}$ 11'18	8.29431 AU
evening set	-2753 Nov 09 j 22:10	11° $\mathbb{M}$ 23'28		direct	-2747 Oct 13 j 02:36	17° $\mathbb{Z}$ 48'55	
				evening set	-2746 Jan 21 j 17:54	25° $\mathbb{Z}$ 32'52	
conjunction	-2753 Nov 26 j 11:26	13° $\mathbb{M}$ 20'42	1°08'55				
minimum elong	-2753 Nov 26 j 11:28	13° $\mathbb{M}$ 20'42	1°08'53	conjunction	-2746 Feb 08 j 01:36	27° $\mathbb{Z}$ 45'27	-1°-41'-55
max. Earth dist.	-2753 Nov 25 j 23:41	13° $\mathbb{M}$ 17'12	10.98362 AU	minimum elong	-2746 Feb 08 j 01:33	27° $\mathbb{Z}$ 45'26	1°42'00
	-2753 Dec 10 j 10:55	15° $\mathbb{M}$		max. Earth dist.	-2746 Feb 07 j 22:59	27° $\mathbb{Z}$ 44'37	10.23021 AU
morning rise	-2753 Dec 13 j 02:22	15° $\mathbb{M}$ 18'31		morning rise	-2746 Feb 25 j 14:25	29° $\mathbb{Z}$ 59'42	
retrograde	-2752 Mar 24 j 18:04	22° $\mathbb{M}$ 30'20			-2746 Feb 25 j 15:22	0° $\approx$	
opposition	-2752 Jun 03 j 17:55	19° $\mathbb{M}$ 09'57	1°08'14	retrograde	-2746 Jun 13 j 02:15	8° $\approx$ 14'31	
min. Earth dist.	-2752 Jun 04 j 03:46	19° $\mathbb{M}$ 08'07	8.93489 AU	opposition	-2746 Aug 20 j 23:57	4° $\approx$ 45'21	-2°-20'-50
direct	-2752 Aug 12 j 17:08	15° $\mathbb{M}$ 51'27		min. Earth dist.	-2746 Aug 21 j 00:22	4° $\approx$ 45'16	8.17000 AU
evening set	-2752 Nov 20 j 10:01	22° $\mathbb{M}$ 55'09		direct	-2746 Oct 26 j 12:57	1° $\approx$ 21'11	
				evening set	-2745 Feb 04 j 21:23	9° $\approx$ 15'32	
conjunction	-2752 Dec 07 j 01:32	24° $\mathbb{M}$ 54'18	0°42'12				
minimum elong	-2752 Dec 07 j 01:34	24° $\mathbb{M}$ 54'19	0°42'09	conjunction	-2745 Feb 22 j 08:46	11° $\approx$ 30'56	-2°-2'-23
max. Earth dist.	-2752 Dec 06 j 13:55	24° $\mathbb{M}$ 50'49	10.88180 AU	minimum elong	-2745 Feb 22 j 08:43	11° $\approx$ 30'55	2°02'27
morning rise	-2752 Dec 23 j 19:42	26° $\mathbb{M}$ 54'20		max. Earth dist.	-2745 Feb 22 j 08:26	11° $\approx$ 30'50	10.11258 AU
	-2751 Jan 20 j 18:04	0° $\mathbb{Z}$		morning rise	-2745 Mar 12 j 01:15	13° $\approx$ 47'58	
retrograde	-2751 Apr 06 j 08:40	4° $\mathbb{Z}$ 14'50			-2745 Mar 21 j 14:48	15° $\approx$	
opposition	-2751 Jun 16 j 06:04	0° $\mathbb{Z}$ 53'05	0°33'56	retrograde	-2745 Jun 27 j 21:43	22° $\approx$ 11'55	
min. Earth dist.	-2751 Jun 16 j 15:28	0° $\mathbb{Z}$ 51'19	8.82386 AU	opposition	-2745 Sep 04 j 05:05	18° $\approx$ 41'45	-2°-42'-38
	-2751 Jun 28 j 04:14	30° $\mathbb{R}$		min. Earth dist.	-2745 Sep 04 j 03:36	18° $\approx$ 42'04	8.06231 AU
direct	-2751 Aug 24 j 14:31	27° $\mathbb{M}$ 34'09		direct	-2745 Nov 09 j 09:14	15° $\approx$ 16'13	
	-2751 Oct 18 j 03:59	0° $\mathbb{Z}$		evening set	-2744 Feb 19 j 12:46	23° $\approx$ 20'31	
evening set	-2751 Dec 02 j 05:18	4° $\mathbb{Z}$ 43'18					
conjunction	-2751 Dec 18 j 23:27	6° $\mathbb{Z}$ 44'43	0°13'10	conjunction	-2744 Mar 08 j 04:04	25° $\approx$ 38'30	-2°-16'-3
minimum elong	-2751 Dec 18 j 23:28	6° $\mathbb{Z}$ 44'43	0°13'05	minimum elong	-2744 Mar 08 j 04:03	25° $\approx$ 38'30	2°16'06
behind sun begin	-2751 Dec 18 j 19:10	6° $\mathbb{Z}$ 43'26		max. Earth dist.	-2744 Mar 08 j 06:40	25° $\approx$ 39'21	10.01559 AU
behind sun end	-2751 Dec 19 j 03:46	6° $\mathbb{Z}$ 46'01		morning rise	-2744 Mar 26 j 00:02	27° $\approx$ 57'58	
max. Earth dist.	-2751 Dec 18 j 12:04	6° $\mathbb{Z}$ 41'16	10.76354 AU		-2744 Apr 11 j 05:51	0° $\mathbb{H}$	
morning rise	-2750 Jan 04 j 21:16	8° $\mathbb{Z}$ 47'17		retrograde	-2744 Jul 11 j 20:42	6° $\mathbb{H}$ 28'26	
retrograde	-2750 Apr 19 j 07:12	16° $\mathbb{Z}$ 17'43		opposition	-2744 Sep 17 j 15:07	2° $\mathbb{H}$ 57'37	-2°-55'-1
desc. node	-2750 May 31 j 23:21	14° $\mathbb{Z}$ 53'44		min. Earth dist.	-2744 Sep 17 j 11:34	2° $\mathbb{H}$ 58'21	7.97905 AU
opposition	-2750 Jun 29 j 00:13	12° $\mathbb{Z}$ 54'28	0°-2'-46		-2744 Oct 30 j 21:18	30° $\mathbb{R}$	
min. Earth dist.	-2750 Jun 29 j 09:04	12° $\mathbb{Z}$ 52'47	8.69881 AU	direct	-2744 Nov 22 j 14:58	29° $\approx$ 30'46	
direct	-2750 Sep 05 j 18:57	9° $\mathbb{Z}$ 34'51			-2744 Dec 15 j 04:46	0° $\mathbb{H}$	
evening set	-2750 Dec 14 j 09:30	16° $\mathbb{Z}$ 50'58		evening set	-2743 Mar 05 j 14:13	7° $\mathbb{H}$ 43'34	
conjunction	-2750 Dec 31 j 06:46	18° $\mathbb{Z}$ 54'58	0°-17'-15	conjunction	-2743 Mar 23 j 09:28	10° $\mathbb{H}$ 03'43	-2°-21'-34
minimum elong	-2750 Dec 31 j 06:45	18° $\mathbb{Z}$ 54'58	0°17'21	minimum elong	-2743 Mar 23 j 09:28	10° $\mathbb{H}$ 03'43	2°21'36
max. Earth dist.	-2750 Dec 30 j 21:11	18° $\mathbb{Z}$ 52'01	10.63350 AU	max. Earth dist.	-2743 Mar 23 j 15:31	10° $\mathbb{H}$ 05'43	9.94666 AU
morning rise	-2749 Jan 17 j 08:18	21° $\mathbb{Z}$ 00'19		morning rise	-2743 Apr 10 j 08:29	12° $\mathbb{H}$ 25'05	
retrograde	-2749 May 02 j 16:06	28° $\mathbb{Z}$ 41'40		retrograde	-2743 Jul 26 j 21:16	20° $\mathbb{H}$ 58'38	
opposition	-2749 Jul 12 j 01:22	25° $\mathbb{Z}$ 16'51	0°-40'-29	opposition	-2743 Oct 02 j 04:24	17° $\mathbb{H}$ 27'32	-2°-56'-32
min. Earth dist.	-2749 Jul 12 j 08:28	25° $\mathbb{Z}$ 15'29	8.56493 AU	min. Earth dist.	-2743 Oct 01 j 22:27	17° $\mathbb{H}$ 28'46	7.92653 AU
direct	-2749 Sep 18 j 05:54	21° $\mathbb{Z}$ 56'21		direct	-2743 Dec 07 j 03:43	13° $\mathbb{H}$ 59'30	
evening set	-2749 Dec 27 j 00:08	29° $\mathbb{Z}$ 20'45		evening set	-2742 Mar 20 j 22:44	22° $\mathbb{H}$ 18'28	
	-2748 Jan 01 j 07:47	0° $\mathbb{Z}$					
conjunction	-2748 Jan 13 j 00:48	1° $\mathbb{Z}$ 27'32	0°-47'-35	conjunction	-2742 Apr 07 j 21:38	24° $\mathbb{H}$ 40'11	-2°-18'-9
minimum elong	-2748 Jan 13 j 00:46	1° $\mathbb{Z}$ 27'31	0°47'41	minimum elong	-2742 Apr 07 j 21:39	24° $\mathbb{H}$ 40'11	2°18'10
max. Earth dist.	-2748 Jan 12 j 17:59	1° $\mathbb{Z}$ 25'24	10.49717 AU	max. Earth dist.	-2742 Apr 08 j 07:13	24° $\mathbb{H}$ 43'21	9.91112 AU
morning rise	-2748 Jan 30 j 06:04	3° $\mathbb{Z}$ 35'50		morning rise	-2742 Apr 25 j 23:09	27° $\mathbb{H}$ 02'43	
retrograde	-2748 May 15 j 10:17	11° $\mathbb{Z}$ 28'39			-2742 May 19 j 17:45	0° $\mathbb{Y}$	
opposition	-2748 Jul 24 j 09:44	8° $\mathbb{Z}$ 02'15	-1°-17'-28	retrograde	-2742 Aug 10 j 20:41	5° $\mathbb{Y}$ 35'28	
min. Earth dist.	-2748 Jul 24 j 14:21	8° $\mathbb{Z}$ 01'21	8.42805 AU	opposition	-2742 Oct 16 j 18:37	2° $\mathbb{Y}$ 04'31	-2°-46'-39
direct	-2748 Sep 30 j 00:14	4° $\mathbb{Z}$ 40'41		min. Earth dist.	-2742 Oct 16 j 10:15	2° $\mathbb{Y}$ 06'15	7.90877 AU
evening set	-2747 Jan 08 j 02:47	12° $\mathbb{Z}$ 14'29			-2742 Nov 12 j 10:05	30° $\mathbb{R}$	
				direct	-2742 Dec 21 j 21:00	28° $\mathbb{H}$ 35'31	
conjunction	-2747 Jan 25 j 06:57	14° $\mathbb{Z}$ 24'09	-1°-16'-23		-2741 Jan 29 j 20:32	0° $\mathbb{Y}$	
				evening set	-2741 Apr 05 j 11:01	6° $\mathbb{Y}$ 57'46	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 14

Attention, astronomical year style is used: The year -2741 in astronomical counting style is the year 2742 BCE in historical counting style.

conjunction	-2741 Apr 23 j 13:01	9°Υ20'16	-2°-5'-51	opposition	-2735 Jan 06 j 15:07	25°Π53'34	0°41'54
minimum elong	-2741 Apr 23 j 13:04	9°Υ20'17	2°05'51	min. Earth dist.	-2735 Jan 06 j 07:21	25°Π55'07	8.43630 AU
max. Earth dist.	-2741 Apr 24 j 01:25	9°Υ24'22	9.91176 AU	direct	-2735 Mar 17 j 00:27	22°Π25'22	
morning rise	-2741 May 11 j 16:16	11°Υ43'09			-2735 Jun 28 j 23:52	0°Θ	
retrograde	-2741 Aug 25 j 16:30	20°Υ11'13		evening set	-2735 Jul 01 j 02:21	0°Θ15'13	
opposition	-2741 Oct 31 j 07:24	16°Υ40'51	-2°-25'-59				
min. Earth dist.	-2741 Oct 30 j 21:20	16°Υ42'57	7.92711 AU	conjunction	-2735 Jul 18 j 19:12	2°Θ25'34	0°49'28
direct	-2740 Jan 05 j 16:03	13°Υ11'09		minimum elong	-2735 Jul 18 j 19:10	2°Θ25'34	0°49'33
evening set	-2740 Apr 19 j 23:19	21°Υ33'37		max. Earth dist.	-2735 Jul 19 j 03:13	2°Θ28'03	10.50733 AU
				morning rise	-2735 Aug 05 j 07:01	4°Θ34'22	
conjunction	-2740 May 08 j 03:25	23°Υ56'01	-1°-45'-32	retrograde	-2735 Nov 13 j 03:59	11°Θ57'41	
minimum elong	-2740 May 08 j 03:29	23°Υ56'02	1°45'31	opposition	-2734 Jan 19 j 14:27	8°Θ36'15	1°18'28
max. Earth dist.	-2740 May 08 j 17:32	24°Υ00'40	9.94836 AU	min. Earth dist.	-2734 Jan 19 j 07:57	8°Θ37'31	8.57691 AU
morning rise	-2740 May 26 j 07:18	26°Υ18'20		direct	-2734 Mar 30 j 14:31	5°Θ09'12	
	-2740 Jun 25 j 19:31	0°Ϡ		evening set	-2734 Jul 14 j 08:49	12°Θ49'56	
retrograde	-2740 Sep 08 j 06:52	4°Ϡ38'22					
opposition	-2740 Nov 13 j 16:47	1°Ϡ09'00	-1°-56'-11	conjunction	-2734 Jul 31 j 20:27	14°Θ56'55	1°17'27
min. Earth dist.	-2740 Nov 13 j 05:55	1°Ϡ11'15	7.98003 AU	minimum elong	-2734 Jul 31 j 20:24	14°Θ56'54	1°17'31
	-2740 Nov 27 j 18:39	30°ϠΥ		max. Earth dist.	-2734 Aug 01 j 02:42	14°Θ58'49	10.64662 AU
direct	-2739 Jan 19 j 12:02	27°Υ38'55		morning rise	-2734 Aug 18 j 02:43	17°Θ02'19	
	-2739 Mar 12 j 08:11	0°Ϡ		retrograde	-2734 Nov 25 j 11:05	24°Θ16'15	
evening set	-2739 May 05 j 07:56	5°Ϡ58'38		opposition	-2733 Feb 01 j 07:03	20°Θ56'22	1°50'11
				min. Earth dist.	-2733 Feb 01 j 02:55	20°Θ57'10	8.71400 AU
conjunction	-2739 May 23 j 12:40	8°Ϡ19'59	-1°-18'-51	direct	-2733 Apr 12 j 19:34	17°Θ30'37	
minimum elong	-2739 May 23 j 12:44	8°Ϡ20'01	1°18'48	evening set	-2733 Jul 27 j 04:23	25°Θ02'36	
max. Earth dist.	-2739 May 24 j 03:22	8°Ϡ24'47	10.01797 AU				
morning rise	-2739 Jun 10 j 15:49	10°Ϡ40'48		conjunction	-2733 Aug 13 j 10:31	27°Θ06'22	1°41'10
	-2739 Jul 17 j 09:12	15°Ϡ		minimum elong	-2733 Aug 13 j 10:28	27°Θ06'21	1°41'14
retrograde	-2739 Sep 22 j 11:43	18°Ϡ50'26		max. Earth dist.	-2733 Aug 13 j 13:54	27°Θ07'23	10.77906 AU
opposition	-2739 Nov 27 j 20:52	15°Ϡ22'24	-1°-19'-43	morning rise	-2733 Aug 30 j 11:24	29°Θ08'37	
min. Earth dist.	-2739 Nov 27 j 10:17	15°Ϡ24'35	8.06367 AU		-2733 Sep 06 j 19:57	0°Ω	
	-2739 Dec 02 j 09:24	15°ϠϠ		retrograde	-2733 Dec 07 j 11:22	6°Ω14'38	
direct	-2738 Feb 03 j 06:02	11°Ϡ52'18		opposition	-2732 Feb 13 j 17:40	2°Ω56'09	2°16'06
	-2738 Apr 05 j 06:18	15°Ϡ		min. Earth dist.	-2732 Feb 13 j 16:16	2°Ω56'25	8.84150 AU
evening set	-2738 May 20 j 09:43	20°Ϡ06'44			-2732 Mar 31 j 10:36	30°ϠΘ	
				direct	-2732 Apr 24 j 15:42	29°Θ31'45	
conjunction	-2738 Jun 07 j 13:31	22°Ϡ26'10	0°-47'-51		-2732 May 18 j 20:17	0°Ω	
minimum elong	-2738 Jun 07 j 13:34	22°Ϡ26'11	0°47'48	evening set	-2732 Aug 07 j 13:41	6°Ω55'37	
max. Earth dist.	-2738 Jun 08 j 03:25	22°Ϡ30'39	10.11558 AU				
morning rise	-2738 Jun 25 j 14:34	24°Ϡ44'42		conjunction	-2732 Aug 24 j 14:28	8°Ω56'29	1°59'57
	-2738 Aug 11 j 14:54	0°Π		minimum elong	-2732 Aug 24 j 14:26	8°Ω56'29	2°00'00
retrograde	-2738 Oct 06 j 06:09	2°Π42'33		max. Earth dist.	-2732 Aug 24 j 14:28	8°Ω56'29	10.89914 AU
	-2738 Dec 02 j 18:00	30°ϠϠ		morning rise	-2732 Sep 10 j 10:33	10°Ω55'58	
opposition	-2738 Dec 11 j 18:21	29°Ϡ16'05	0°-39'-24		-2732 Oct 18 j 22:13	15°Ω	
min. Earth dist.	-2738 Dec 11 j 08:40	29°Ϡ18'04	8.17236 AU	retrograde	-2732 Dec 18 j 04:40	17°Ω55'45	
direct	-2737 Feb 17 j 19:26	25°Ϡ46'18			-2731 Feb 20 j 04:08	15°ϠΩ	
	-2737 May 01 j 12:57	0°Π		opposition	-2731 Feb 24 j 23:21	14°Ω38'22	2°35'37
evening set	-2737 Jun 04 j 02:16	3°Π53'34		min. Earth dist.	-2731 Feb 25 j 00:08	14°Ω38'13	8.95423 AU
				direct	-2731 May 07 j 06:36	11°Ω15'19	
conjunction	-2737 Jun 22 j 03:37	6°Π10'23	0°-14'-48		-2731 Jul 17 j 14:37	15°Ω	
minimum elong	-2737 Jun 22 j 03:37	6°Π10'23	0°14'44	evening set	-2731 Aug 19 j 13:36	18°Ω31'51	
behind sun begin	-2737 Jun 22 j 00:54	6°Π09'31					
behind sun end	-2737 Jun 22 j 06:21	6°Π11'14		conjunction	-2731 Sep 05 j 09:45	20°Ω30'16	2°13'24
max. Earth dist.	-2737 Jun 22 j 15:37	6°Π14'11	10.23461 AU	minimum elong	-2731 Sep 05 j 09:43	20°Ω30'15	2°13'27
morning rise	-2737 Jul 10 j 01:16	8°Π25'59		max. Earth dist.	-2731 Sep 05 j 07:05	20°Ω29'29	11.00224 AU
retrograde	-2737 Oct 19 j 14:17	16°Π11'42		morning rise	-2731 Sep 22 j 01:43	22°Ω27'28	
asc. node	-2737 Dec 07 j 08:50	14°Π11'28		retrograde	-2731 Dec 29 j 20:20	29°Ω22'38	
opposition	-2737 Dec 25 j 08:31	12°Π46'55	0°01'57	opposition	-2730 Mar 09 j 00:57	26°Ω06'04	2°48'29
min. Earth dist.	-2737 Dec 24 j 23:48	12°Π48'41	8.29904 AU	min. Earth dist.	-2730 Mar 09 j 03:10	26°Ω05'39	9.04779 AU
direct	-2736 Mar 03 j 02:05	9°Π17'47		direct	-2730 May 19 j 14:22	22°Ω44'20	
evening set	-2736 Jun 17 j 08:06	17°Π16'39		evening set	-2730 Aug 31 j 05:54	29°Ω54'28	
					-2730 Sep 01 j 01:10	0°൬	
conjunction	-2736 Jul 05 j 05:39	19°Π30'21	0°18'16	conjunction	-2730 Sep 16 j 22:17	1°൬50'57	2°21'20
minimum elong	-2736 Jul 05 j 05:38	19°Π30'21	0°18'22	minimum elong	-2730 Sep 16 j 22:16	1°൬50'57	2°21'23
max. Earth dist.	-2736 Jul 05 j 15:35	19°Π33'27	10.36764 AU	max. Earth dist.	-2730 Sep 16 j 18:07	1°൬49'44	11.08449 AU
morning rise	-2736 Jul 22 j 22:46	21°Π42'37		morning rise	-2730 Oct 03 j 10:52	3°൬46'23	
retrograde	-2736 Oct 31 j 13:43	29°Π16'39					

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), AstroDienst AG 7-Dez-2017 14:41, page 15

Attention, astronomical year style is used: The year -2729 in astronomical counting style is the year 2730 BCE in historical counting style.

retrograde	-2729 Jan 10 j 08:52	10° $\mathring{M}$ 38'32		retrograde	-2723 Mar 19 j 16:26	17° $\mathring{M}$ 38'44	
opposition	-2729 Mar 20 j 23:29	7° $\mathring{M}$ 22'30	2°54'36		-2723 May 20 j 10:50	15° $\mathring{R}$ $\mathring{M}$	
min. Earth dist.	-2729 Mar 21 j 03:43	7° $\mathring{M}$ 21'43	9.11878 AU	opposition	-2723 May 29 j 16:39	14° $\mathring{M}$ 19'18	1°22'14
direct	-2729 May 31 j 14:36	4° $\mathring{M}$ 01'56		min. Earth dist.	-2723 May 30 j 04:56	14° $\mathring{M}$ 17'02	8.98604 AU
evening set	-2729 Sep 11 j 16:04	11° $\mathring{M}$ 06'49		direct	-2723 Aug 07 j 20:52	11° $\mathring{M}$ 01'08	
					-2723 Oct 18 j 23:03	15° $\mathring{M}$	
conjunction	-2729 Sep 28 j 05:26	13° $\mathring{M}$ 01'53	2°23'45	evening set	-2723 Nov 15 j 17:32	18° $\mathring{M}$ 02'55	
minimum elong	-2729 Sep 28 j 05:26	13° $\mathring{M}$ 01'53	2°23'46				
max. Earth dist.	-2729 Sep 27 j 23:09	13° $\mathring{M}$ 00'03	11.14299 AU	conjunction	-2723 Dec 02 j 07:55	20° $\mathring{M}$ 01'07	0°54'19
morning rise	-2729 Oct 14 j 15:42	14° $\mathring{M}$ 56'08		minimum elong	-2723 Dec 02 j 07:57	20° $\mathring{M}$ 01'07	0°54'16
retrograde	-2728 Jan 21 j 20:38	21° $\mathring{M}$ 46'52		max. Earth dist.	-2723 Dec 01 j 18:10	19° $\mathring{M}$ 57'00	10.93429 AU
opposition	-2728 Mar 31 j 20:28	18° $\mathring{M}$ 31'03	2°54'06	morning rise	-2723 Dec 19 j 00:41	22° $\mathring{M}$ 00'05	
min. Earth dist.	-2728 Apr 01 j 03:14	18° $\mathring{M}$ 29'48	9.16476 AU	retrograde	-2722 Apr 01 j 02:28	29° $\mathring{M}$ 16'28	
direct	-2728 Jun 11 j 11:46	15° $\mathring{M}$ 11'29		opposition	-2722 Jun 11 j 02:12	25° $\mathring{M}$ 55'30	0°49'26
evening set	-2728 Sep 21 j 21:31	22° $\mathring{M}$ 12'15		min. Earth dist.	-2722 Jun 11 j 13:44	25° $\mathring{M}$ 53'21	8.87740 AU
				direct	-2722 Aug 19 j 17:49	22° $\mathring{M}$ 36'49	
conjunction	-2728 Oct 08 j 08:43	24° $\mathring{M}$ 06'28	2°20'44	evening set	-2722 Nov 27 j 09:08	29° $\mathring{M}$ 43'26	
minimum elong	-2728 Oct 08 j 08:43	24° $\mathring{M}$ 06'28	2°20'44		-2722 Nov 29 j 17:01	0° $\mathring{Z}$	
max. Earth dist.	-2728 Oct 07 j 23:34	24° $\mathring{M}$ 03'48	11.17575 AU				
morning rise	-2728 Oct 24 j 17:52	26° $\mathring{M}$ 00'07		conjunction	-2722 Dec 14 j 02:11	1° $\mathring{Z}$ 43'49	0°26'13
	-2728 Dec 02 j 12:50	0° $\mathring{Z}$		minimum elong	-2722 Dec 14 j 02:12	1° $\mathring{Z}$ 43'49	0°26'08
retrograde	-2727 Feb 01 j 07:23	2° $\mathring{Z}$ 51'04		max. Earth dist.	-2722 Dec 13 j 13:58	1° $\mathring{Z}$ 40'08	10.81729 AU
	-2727 Apr 07 j 00:00	30° $\mathring{R}$ $\mathring{M}$		morning rise	-2722 Dec 30 j 22:12	3° $\mathring{Z}$ 45'12	
opposition	-2727 Apr 12 j 16:39	29° $\mathring{M}$ 35'07	2°47'10	retrograde	-2721 Apr 13 j 22:14	11° $\mathring{Z}$ 11'10	
min. Earth dist.	-2727 Apr 13 j 01:24	29° $\mathring{M}$ 33'31	9.18400 AU	opposition	-2721 Jun 23 j 17:34	7° $\mathring{Z}$ 48'30	0°13'41
direct	-2727 Jun 23 j 05:10	26° $\mathring{M}$ 16'19		min. Earth dist.	-2721 Jun 24 j 03:21	7° $\mathring{Z}$ 46'39	8.75241 AU
	-2727 Sep 02 j 11:46	0° $\mathring{Z}$		direct	-2721 Aug 31 j 20:10	4° $\mathring{Z}$ 29'04	
evening set	-2727 Oct 03 j 00:02	3° $\mathring{Z}$ 14'17		desc. node	-2721 Nov 10 j 03:26	8° $\mathring{Z}$ 25'18	
				evening set	-2721 Dec 09 j 09:05	11° $\mathring{Z}$ 42'03	
conjunction	-2727 Oct 19 j 10:12	5° $\mathring{Z}$ 08'13	2°12'29				
minimum elong	-2727 Oct 19 j 10:14	5° $\mathring{Z}$ 08'14	2°12'28	conjunction	-2721 Dec 26 j 05:01	13° $\mathring{Z}$ 44'57	0°-3'-45
max. Earth dist.	-2727 Oct 18 j 23:27	5° $\mathring{Z}$ 05'05	11.18129 AU	minimum elong	-2721 Dec 26 j 05:00	13° $\mathring{Z}$ 44'56	0°03'52
morning rise	-2727 Nov 04 j 19:11	7° $\mathring{Z}$ 01'52		behind sun begin	-2721 Dec 25 j 22:02	13° $\mathring{Z}$ 42'50	
retrograde	-2726 Feb 12 j 21:13	13° $\mathring{Z}$ 54'38		behind sun end	-2721 Dec 26 j 11:59	13° $\mathring{Z}$ 47'03	
opposition	-2726 Apr 24 j 12:56	10° $\mathring{Z}$ 38'13	2°34'05	max. Earth dist.	-2721 Dec 25 j 17:48	13° $\mathring{Z}$ 41'31	10.68625 AU
min. Earth dist.	-2726 Apr 24 j 22:41	10° $\mathring{Z}$ 36'26	9.17521 AU	morning rise	-2720 Jan 12 j 04:44	15° $\mathring{Z}$ 49'04	
direct	-2726 Jul 04 j 22:00	7° $\mathring{Z}$ 19'57		retrograde	-2720 Apr 26 j 04:06	23° $\mathring{Z}$ 25'41	
evening set	-2726 Oct 14 j 01:22	14° $\mathring{Z}$ 16'34		opposition	-2720 Jul 05 j 15:35	20° $\mathring{Z}$ 01'17	0°-23'-45
				min. Earth dist.	-2720 Jul 05 j 23:55	19° $\mathring{Z}$ 59'41	8.61626 AU
conjunction	-2726 Oct 30 j 11:33	16° $\mathring{Z}$ 10'49	1°59'18	direct	-2720 Sep 12 j 02:25	16° $\mathring{Z}$ 40'52	
minimum elong	-2726 Oct 30 j 11:35	16° $\mathring{Z}$ 10'50	1°59'16	evening set	-2720 Dec 20 j 18:54	24° $\mathring{Z}$ 01'42	
max. Earth dist.	-2726 Oct 29 j 23:57	16° $\mathring{Z}$ 07'26	11.15865 AU				
morning rise	-2726 Nov 15 j 21:09	18° $\mathring{Z}$ 05'00		conjunction	-2719 Jan 06 j 17:59	26° $\mathring{Z}$ 07'20	0°-34'-13
retrograde	-2725 Feb 24 j 15:06	25° $\mathring{Z}$ 01'16		minimum elong	-2719 Jan 06 j 17:57	26° $\mathring{Z}$ 07'20	0°34'20
opposition	-2725 May 06 j 10:57	21° $\mathring{Z}$ 44'08	2°15'14	max. Earth dist.	-2719 Jan 06 j 07:57	26° $\mathring{Z}$ 04'13	10.54668 AU
min. Earth dist.	-2725 May 06 j 21:29	21° $\mathring{Z}$ 42'12	9.13807 AU	morning rise	-2719 Jan 23 j 21:40	28° $\mathring{Z}$ 14'26	
direct	-2725 Jul 16 j 12:01	18° $\mathring{Z}$ 26'12			-2719 Feb 07 j 17:29	0° $\mathring{Z}$	
evening set	-2725 Oct 25 j 03:27	25° $\mathring{Z}$ 22'58		retrograde	-2719 May 09 j 17:11	6° $\mathring{Z}$ 02'29	
				opposition	-2719 Jul 18 j 20:47	2° $\mathring{Z}$ 36'20	-1°-1'-18
conjunction	-2725 Nov 10 j 14:18	27° $\mathring{Z}$ 18'02	1°41'33	min. Earth dist.	-2719 Jul 19 j 03:40	2° $\mathring{Z}$ 35'00	8.47482 AU
minimum elong	-2725 Nov 10 j 14:20	27° $\mathring{Z}$ 18'03	1°41'31		-2719 Aug 26 j 04:42	30° $\mathring{R}$ $\mathring{Z}$	
max. Earth dist.	-2725 Nov 10 j 01:22	27° $\mathring{Z}$ 14'14	11.10830 AU	direct	-2719 Sep 24 j 17:00	29° $\mathring{Z}$ 14'44	
morning rise	-2725 Nov 27 j 01:32	29° $\mathring{Z}$ 13'20			-2719 Oct 23 j 18:24	0° $\mathring{Z}$	
	-2725 Dec 03 j 21:41	0° $\mathring{M}$		evening set	-2718 Jan 02 j 16:06	6° $\mathring{Z}$ 44'46	
retrograde	-2724 Mar 07 j 12:20	6° $\mathring{M}$ 14'47					
opposition	-2724 May 17 j 11:55	2° $\mathring{M}$ 56'38	1°51'06	conjunction	-2718 Jan 19 j 18:34	8° $\mathring{Z}$ 53'18	-1°-3'-54
min. Earth dist.	-2724 May 17 j 23:38	2° $\mathring{M}$ 54'29	9.07405 AU	minimum elong	-2718 Jan 19 j 18:32	8° $\mathring{Z}$ 53'17	1°04'01
	-2724 Jul 06 j 02:19	30° $\mathring{R}$ $\mathring{Z}$		max. Earth dist.	-2718 Jan 19 j 10:44	8° $\mathring{Z}$ 50'50	10.40471 AU
direct	-2724 Jul 27 j 02:42	29° $\mathring{Z}$ 38'44		morning rise	-2718 Feb 06 j 02:08	11° $\mathring{Z}$ 03'27	
	-2724 Aug 16 j 22:31	0° $\mathring{M}$		retrograde	-2718 May 23 j 15:36	19° $\mathring{Z}$ 03'13	
evening set	-2724 Nov 04 j 08:18	6° $\mathring{M}$ 37'14		opposition	-2718 Aug 01 j 09:19	15° $\mathring{Z}$ 35'25	-1°-37'-3
				min. Earth dist.	-2718 Aug 01 j 14:16	15° $\mathring{Z}$ 34'26	8.33467 AU
conjunction	-2724 Nov 20 j 20:30	8° $\mathring{M}$ 33'39	1°19'41	direct	-2718 Oct 07 j 16:57	12° $\mathring{Z}$ 12'32	
minimum elong	-2724 Nov 20 j 20:33	8° $\mathring{M}$ 33'39	1°19'39	evening set	-2717 Jan 16 j 01:34	19° $\mathring{Z}$ 52'38	
max. Earth dist.	-2724 Nov 20 j 06:19	8° $\mathring{M}$ 29'27	11.03251 AU				
morning rise	-2724 Dec 07 j 10:16	10° $\mathring{M}$ 30'33		conjunction	-2717 Feb 02 j 07:42	22° $\mathring{Z}$ 04'10	-1°-31'-8
	-2723 Jan 19 j 23:23	15° $\mathring{M}$		minimum elong	-2717 Feb 02 j 07:39	22° $\mathring{Z}$ 04'09	1°31'13

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 16

Attention, astronomical year style is used: The year -2717 in astronomical counting style is the year 2718 BCE in historical counting style.

max. Earth dist.	-2717 Feb 02 j 03:23	22° $\text{♁}$ 02'47	10.26732 AU	conjunction	-2711 May 01 j 17:54	17° $\text{♁}$ 50'20	-1°-55'-15
morning rise	-2717 Feb 19 j 18:59	24° $\text{♁}$ 17'21		minimum elong	-2711 May 01 j 17:58	17° $\text{♁}$ 50'21	1°55'14
	-2717 Apr 13 j 04:34	0° $\text{♁}$		max. Earth dist.	-2711 May 02 j 07:24	17° $\text{♁}$ 54'47	9.92155 AU
retrograde	-2717 Jun 07 j 00:02	2° $\text{♁}$ 28'25		morning rise	-2711 May 19 j 21:52	20° $\text{♁}$ 13'10	
	-2717 Aug 02 j 09:08	30° $\text{♁}$		retrograde	-2711 Sep 02 j 09:50	28° $\text{♁}$ 37'33	
opposition	-2717 Aug 15 j 05:16	28° $\text{♁}$ 59'09	-2°-8'-46	opposition	-2711 Nov 07 j 21:08	25° $\text{♁}$ 07'43	-2°-10'-5
min. Earth dist.	-2717 Aug 15 j 07:19	28° $\text{♁}$ 58'44	8.20302 AU	min. Earth dist.	-2711 Nov 07 j 10:26	25° $\text{♁}$ 09'57	7.94828 AU
direct	-2717 Oct 21 j 00:39	25° $\text{♁}$ 34'55		direct	-2710 Jan 13 j 11:27	21° $\text{♁}$ 37'49	
	-2716 Jan 01 j 07:35	0° $\text{♁}$		evening set	-2710 Apr 29 j 01:44	29° $\text{♁}$ 59'30	
evening set	-2716 Jan 29 j 23:42	3° $\text{♁}$ 25'29			-2710 Apr 29 j 03:17	0° $\text{♁}$	
conjunction	-2716 Feb 16 j 09:39	5° $\text{♁}$ 39'56	-1°-54'-5	conjunction	-2710 May 17 j 06:18	2° $\text{♁}$ 21'30	-1°-31'-2
minimum elong	-2716 Feb 16 j 09:36	5° $\text{♁}$ 39'55	1°54'10	minimum elong	-2710 May 17 j 06:22	2° $\text{♁}$ 21'31	1°31'00
max. Earth dist.	-2716 Feb 16 j 09:06	5° $\text{♁}$ 39'45	10.14194 AU	max. Earth dist.	-2710 May 17 j 21:05	2° $\text{♁}$ 26'20	9.98128 AU
morning rise	-2716 Mar 05 j 00:34	7° $\text{♁}$ 56'01		morning rise	-2710 Jun 04 j 10:10	4° $\text{♁}$ 43'12	
	-2716 May 13 j 02:54	15° $\text{♁}$		retrograde	-2710 Sep 16 j 18:24	12° $\text{♁}$ 58'03	
retrograde	-2716 Jun 20 j 17:00	16° $\text{♁}$ 17'05		opposition	-2710 Nov 22 j 04:17	9° $\text{♁}$ 29'35	-1°-36'-5
	-2716 Jul 29 j 15:13	15° $\text{♁}$		min. Earth dist.	-2710 Nov 21 j 16:41	9° $\text{♁}$ 31'59	8.02331 AU
opposition	-2716 Aug 28 j 07:59	12° $\text{♁}$ 46'37	-2°-34'-9	direct	-2709 Jan 28 j 07:34	5° $\text{♁}$ 59'44	
min. Earth dist.	-2716 Aug 28 j 06:51	12° $\text{♁}$ 46'51	8.08715 AU	evening set	-2709 May 14 j 07:30	14° $\text{♁}$ 17'04	
direct	-2716 Nov 02 j 16:39	9° $\text{♁}$ 21'02			-2709 May 19 j 22:09	15° $\text{♁}$	
	-2715 Jan 24 j 08:42	15° $\text{♁}$		conjunction	-2709 Jun 01 j 11:58	16° $\text{♁}$ 37'28	-1°-1'-34
evening set	-2715 Feb 12 j 10:24	17° $\text{♁}$ 21'50		minimum elong	-2709 Jun 01 j 12:01	16° $\text{♁}$ 37'29	1°01'31
conjunction	-2715 Mar 02 j 00:11	19° $\text{♁}$ 38'58	-2°-10'-59	max. Earth dist.	-2709 Jun 02 j 03:10	16° $\text{♁}$ 42'24	10.07173 AU
minimum elong	-2715 Mar 02 j 00:08	19° $\text{♁}$ 38'58	2°11'02	morning rise	-2709 Jun 19 j 14:15	18° $\text{♁}$ 57'09	
max. Earth dist.	-2715 Mar 02 j 03:09	19° $\text{♁}$ 39'57	10.03595 AU	retrograde	-2709 Sep 30 j 17:58	27° $\text{♁}$ 00'34	
morning rise	-2715 Mar 19 j 18:32	21° $\text{♁}$ 57'39		opposition	-2709 Dec 06 j 05:10	23° $\text{♁}$ 33'44	0°-57'00
	-2715 Jun 13 j 11:45	0° $\text{♁}$		min. Earth dist.	-2709 Dec 05 j 17:23	23° $\text{♁}$ 36'09	8.12616 AU
retrograde	-2715 Jul 05 j 15:22	0° $\text{♁}$ 26'25		direct	-2708 Feb 11 j 23:05	20° $\text{♁}$ 04'14	
	-2715 Jul 27 j 18:54	30° $\text{♁}$		evening set	-2708 May 28 j 05:04	28° $\text{♁}$ 14'58	
opposition	-2715 Sep 11 j 16:15	26° $\text{♁}$ 55'09	-2°-50'-56		-2708 Jun 11 j 00:34	0° $\text{♁}$	
min. Earth dist.	-2715 Sep 11 j 12:14	26° $\text{♁}$ 55'59	7.99415 AU	conjunction	-2708 Jun 15 j 07:48	0° $\text{♁}$ 33'01	0°-29'-5
direct	-2715 Nov 16 j 18:01	23° $\text{♁}$ 28'17		minimum elong	-2708 Jun 15 j 07:50	0° $\text{♁}$ 33'01	0°29'02
	-2714 Feb 14 j 09:39	0° $\text{♁}$		max. Earth dist.	-2708 Jun 15 j 22:31	0° $\text{♁}$ 37'42	10.18652 AU
evening set	-2714 Feb 27 j 07:56	1° $\text{♁}$ 38'13		morning rise	-2708 Jul 03 j 07:02	2° $\text{♁}$ 49'55	
conjunction	-2714 Mar 17 j 01:32	3° $\text{♁}$ 57'42	-2°-20'-14	retrograde	-2708 Oct 13 j 08:25	10° $\text{♁}$ 41'06	
minimum elong	-2714 Mar 17 j 01:31	3° $\text{♁}$ 57'41	2°20'16	opposition	-2708 Dec 18 j 23:05	7° $\text{♁}$ 16'00	0°-15'-43
max. Earth dist.	-2714 Mar 17 j 07:48	3° $\text{♁}$ 59'46	9.95633 AU	min. Earth dist.	-2708 Dec 18 j 12:20	7° $\text{♁}$ 18'11	8.24983 AU
morning rise	-2714 Apr 03 j 23:10	6° $\text{♁}$ 18'29		direct	-2707 Feb 25 j 08:00	3° $\text{♁}$ 47'07	
retrograde	-2714 Jul 20 j 16:34	14° $\text{♁}$ 51'52		asc. node	-2707 May 12 j 03:57	8° $\text{♁}$ 17'19	
opposition	-2714 Sep 26 j 04:45	11° $\text{♁}$ 20'14	-2°-57'-21	evening set	-2707 Jun 11 j 16:10	11° $\text{♁}$ 49'42	
min. Earth dist.	-2714 Sep 25 j 22:19	11° $\text{♁}$ 21'34	7.93031 AU	conjunction	-2707 Jun 29 j 15:37	14° $\text{♁}$ 04'45	0°04'18
direct	-2714 Dec 01 j 03:05	7° $\text{♁}$ 52'13		minimum elong	-2707 Jun 29 j 15:37	14° $\text{♁}$ 04'45	0°04'23
evening set	-2713 Mar 14 j 13:53	16° $\text{♁}$ 09'20		behind sun begin	-2707 Jun 29 j 08:28	14° $\text{♁}$ 02'32	
conjunction	-2713 Apr 01 j 11:12	18° $\text{♁}$ 30'37	-2°-20'-46	behind sun end	-2707 Jun 29 j 22:46	14° $\text{♁}$ 06'59	
minimum elong	-2713 Apr 01 j 11:13	18° $\text{♁}$ 30'37	2°20'48	max. Earth dist.	-2707 Jun 30 j 04:31	14° $\text{♁}$ 08'49	10.31783 AU
max. Earth dist.	-2713 Apr 01 j 20:20	18° $\text{♁}$ 33'38	9.90877 AU	morning rise	-2707 Jul 17 j 10:38	16° $\text{♁}$ 18'26	
morning rise	-2713 Apr 19 j 11:45	20° $\text{♁}$ 52'55		retrograde	-2707 Oct 26 j 13:19	23° $\text{♁}$ 57'27	
retrograde	-2713 Aug 04 j 18:05	29° $\text{♁}$ 27'09		opposition	-2706 Jan 01 j 09:22	20° $\text{♁}$ 34'08	0°25'07
opposition	-2713 Oct 10 j 19:17	25° $\text{♁}$ 55'38	-2°-52'-25	min. Earth dist.	-2706 Jan 01 j 00:40	20° $\text{♁}$ 35'52	8.38614 AU
min. Earth dist.	-2713 Oct 10 j 11:10	25° $\text{♁}$ 57'20	7.90024 AU	direct	-2706 Mar 11 j 09:39	17° $\text{♁}$ 06'04	
direct	-2713 Dec 15 j 18:26	22° $\text{♁}$ 26'41		evening set	-2706 Jun 25 j 15:53	24° $\text{♁}$ 59'43	
	-2712 Mar 22 j 18:57	0° $\text{♁}$		conjunction	-2706 Jul 13 j 10:52	27° $\text{♁}$ 11'28	0°36'27
evening set	-2712 Mar 29 j 01:25	0° $\text{♁}$ 48'23		minimum elong	-2706 Jul 13 j 10:50	27° $\text{♁}$ 11'28	0°36'31
conjunction	-2712 Apr 16 j 02:05	3° $\text{♁}$ 10'47	-2°-12'-16	max. Earth dist.	-2706 Jul 13 j 20:30	27° $\text{♁}$ 14'28	10.45715 AU
minimum elong	-2712 Apr 16 j 02:08	3° $\text{♁}$ 10'48	2°12'16	morning rise	-2706 Jul 31 j 00:56	29° $\text{♁}$ 21'42	
max. Earth dist.	-2712 Apr 16 j 13:38	3° $\text{♁}$ 14'36	9.89683 AU		-2706 Aug 05 j 07:58	0° $\text{♁}$	
morning rise	-2712 May 04 j 04:51	5° $\text{♁}$ 33'48		retrograde	-2706 Nov 08 j 06:26	6° $\text{♁}$ 49'25	
retrograde	-2712 Aug 18 j 16:42	14° $\text{♁}$ 04'54		opposition	-2705 Jan 14 j 11:56	3° $\text{♁}$ 27'50	1°03'20
opposition	-2712 Oct 24 j 09:25	10° $\text{♁}$ 34'00	-2°-36'-15	min. Earth dist.	-2705 Jan 14 j 05:54	3° $\text{♁}$ 29'01	8.52659 AU
min. Earth dist.	-2712 Oct 23 j 23:55	10° $\text{♁}$ 36'00	7.90631 AU	direct	-2705 Mar 25 j 04:36	0° $\text{♁}$ 00'46	
direct	-2712 Dec 29 j 13:49	7° $\text{♁}$ 04'25		evening set	-2705 Jul 09 j 03:56	7° $\text{♁}$ 45'25	
evening set	-2711 Apr 13 j 14:42	15° $\text{♁}$ 27'41					

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 17

Attention, astronomical year style is used: The year -2705 in astronomical counting style is the year 2706 BCE in historical counting style.

conjunction	-2705 Jul 26 j 17:43	9° $\overline{53}$ '47	1°05'57	conjunction	-2699 Oct 04 j 02:45	19° $\overline{43}$ '56	2°22'40
minimum elong	-2705 Jul 26 j 17:41	9° $\overline{53}$ '46	1°06'02	minimum elong	-2699 Oct 04 j 02:45	19° $\overline{43}$ '56	2°22'41
max. Earth dist.	-2705 Jul 26 j 23:27	9° $\overline{55}$ '32	10.59644 AU	max. Earth dist.	-2699 Oct 03 j 18:16	19° $\overline{41}$ '27	11.14894 AU
morning rise	-2705 Aug 13 j 02:28	12° $\overline{00}$ '35		morning rise	-2699 Oct 20 j 12:21	21° $\overline{37}$ '55	
retrograde	-2705 Nov 20 j 16:04	19° $\overline{18}$ '24		retrograde	-2698 Jan 27 j 21:55	28° $\overline{29}$ '04	
opposition	-2704 Jan 27 j 07:36	15° $\overline{58}$ '23	1°37'16	opposition	-2698 Apr 08 j 02:47	25° $\overline{12}$ '42	2°50'56
min. Earth dist.	-2704 Jan 27 j 03:40	15° $\overline{59}$ '09	8.66389 AU	min. Earth dist.	-2698 Apr 08 j 10:30	25° $\overline{11}$ '17	9.16139 AU
direct	-2704 Apr 06 j 14:41	12° $\overline{32}$ '31		direct	-2698 Jun 18 j 17:50	21° $\overline{53}$ '02	
evening set	-2704 Jul 21 j 04:31	20° $\overline{08}$ '22		evening set	-2698 Sep 28 j 18:14	28° $\overline{52}$ '35	
					-2698 Oct 08 j 12:17	0° $\overline{00}$ '00	
conjunction	-2704 Aug 07 j 12:53	22° $\overline{13}$ '28	1°31'36	conjunction	-2698 Oct 15 j 04:58	0° $\overline{46}$ '46	2°16'36
minimum elong	-2704 Aug 07 j 12:50	22° $\overline{13}$ '27	1°31'40	minimum elong	-2698 Oct 15 j 04:59	0° $\overline{46}$ '46	2°16'35
max. Earth dist.	-2704 Aug 07 j 15:35	22° $\overline{14}$ '17	10.72952 AU	max. Earth dist.	-2698 Oct 14 j 19:03	0° $\overline{43}$ '52	11.16320 AU
morning rise	-2704 Aug 24 j 16:10	24° $\overline{17}$ '01		morning rise	-2698 Oct 31 j 13:52	2° $\overline{40}$ '31	
	-2704 Oct 21 j 18:47	0° $\overline{00}$ '00		retrograde	-2697 Feb 08 j 10:13	9° $\overline{32}$ '49	
retrograde	-2704 Dec 01 j 19:52	1° $\overline{26}$ '28		opposition	-2697 Apr 19 j 23:02	6° $\overline{16}$ '03	2°40'25
	-2703 Jan 12 j 22:01	30° $\overline{R}$ ' $\overline{00}$		min. Earth dist.	-2697 Apr 20 j 08:38	6° $\overline{14}$ '18	9.16242 AU
opposition	-2703 Feb 07 j 21:03	28° $\overline{07}$ '47	2°05'46	direct	-2697 Jun 30 j 09:40	2° $\overline{56}$ '58	
min. Earth dist.	-2703 Feb 07 j 18:49	28° $\overline{08}$ '12	8.79250 AU	evening set	-2697 Oct 09 j 20:04	9° $\overline{54}$ '35	
direct	-2703 Apr 19 j 15:22	24° $\overline{43}$ '09					
	-2703 Jul 14 j 11:47	0° $\overline{00}$ '00		conjunction	-2697 Oct 26 j 06:08	11° $\overline{48}$ '49	2°05'28
evening set	-2703 Aug 02 j 18:26	2° $\overline{10}$ '40		minimum elong	-2697 Oct 26 j 06:11	11° $\overline{48}$ '50	2°05'26
conjunction	-2703 Aug 19 j 21:35	4° $\overline{12}$ '47	1°52'34	max. Earth dist.	-2697 Oct 25 j 18:11	11° $\overline{45}$ '20	11.15144 AU
minimum elong	-2703 Aug 19 j 21:32	4° $\overline{12}$ '46	1°52'37	morning rise	-2697 Nov 11 j 15:31	13° $\overline{42}$ '53	
max. Earth dist.	-2703 Aug 19 j 22:13	4° $\overline{12}$ '59	10.85143 AU	retrograde	-2696 Feb 20 j 01:18	20° $\overline{37}$ '58	
morning rise	-2703 Sep 05 j 19:39	6° $\overline{13}$ '27		opposition	-2696 Apr 30 j 20:32	17° $\overline{20}$ '35	2°23'57
retrograde	-2703 Dec 13 j 16:48	13° $\overline{16}$ '01		min. Earth dist.	-2696 May 01 j 07:25	17° $\overline{18}$ '35	9.13733 AU
opposition	-2702 Feb 20 j 05:02	9° $\overline{58}$ '25	2°28'05	direct	-2696 Jul 11 j 00:58	14° $\overline{01}$ '54	
min. Earth dist.	-2702 Feb 20 j 05:05	9° $\overline{58}$ '24	8.90770 AU	evening set	-2696 Oct 19 j 21:37	20° $\overline{58}$ '58	
direct	-2702 May 02 j 08:38	6° $\overline{34}$ '58					
evening set	-2702 Aug 14 j 22:39	13° $\overline{54}$ '53		conjunction	-2696 Nov 05 j 08:05	22° $\overline{53}$ '48	1°49'35
	-2702 Aug 24 j 05:07	15° $\overline{00}$ '00		minimum elong	-2696 Nov 05 j 08:08	22° $\overline{53}$ '48	1°49'32
conjunction	-2702 Aug 31 j 20:56	15° $\overline{54}$ '23	2°08'20	max. Earth dist.	-2696 Nov 04 j 19:27	22° $\overline{50}$ '05	11.11400 AU
minimum elong	-2702 Aug 31 j 20:53	15° $\overline{54}$ '22	2°08'23	morning rise	-2696 Nov 21 j 18:47	24° $\overline{48}$ '44	
max. Earth dist.	-2702 Aug 31 j 19:07	15° $\overline{53}$ '51	10.95768 AU		-2695 Jan 13 j 21:47	0° $\overline{00}$ '00	
morning rise	-2702 Sep 17 j 14:29	17° $\overline{52}$ '34		retrograde	-2695 Mar 02 j 20:19	1° $\overline{48}$ '14	
retrograde	-2702 Dec 25 j 09:58	24° $\overline{49}$ '52			-2695 Apr 21 j 14:57	30° $\overline{R}$ ' $\overline{00}$	
opposition	-2701 Mar 04 j 08:38	21° $\overline{33}$ '02	2°43'50	opposition	-2695 May 12 j 20:10	28° $\overline{29}$ '57	2°01'56
min. Earth dist.	-2701 Mar 04 j 11:39	21° $\overline{32}$ '28	9.00517 AU	min. Earth dist.	-2695 May 13 j 07:06	28° $\overline{27}$ '56	9.08682 AU
direct	-2701 May 14 j 18:42	18° $\overline{10}$ '43		direct	-2695 Jul 22 j 16:38	25° $\overline{11}$ '29	
evening set	-2701 Aug 26 j 18:33	25° $\overline{23}$ '53			-2695 Oct 11 j 14:30	0° $\overline{00}$ '00	
				evening set	-2695 Oct 31 j 01:05	2° $\overline{09}$ '31	
conjunction	-2701 Sep 12 j 12:27	27° $\overline{21}$ '15	2°18'38	conjunction	-2695 Nov 16 j 12:50	4° $\overline{05}$ '27	1°29'22
minimum elong	-2701 Sep 12 j 12:26	27° $\overline{21}$ '14	2°18'41	minimum elong	-2695 Nov 16 j 12:53	4° $\overline{05}$ '28	1°29'19
max. Earth dist.	-2701 Sep 12 j 07:18	27° $\overline{19}$ '44	11.04445 AU	max. Earth dist.	-2695 Nov 16 j 00:43	4° $\overline{01}$ '53	11.05184 AU
morning rise	-2701 Sep 29 j 02:26	29° $\overline{17}$ '29		morning rise	-2695 Dec 03 j 01:28	6° $\overline{01}$ '45	
	-2701 Oct 05 j 07:39	0° $\overline{00}$ '00		retrograde	-2694 Mar 14 j 22:56	13° $\overline{07}$ '14	
retrograde	-2700 Jan 05 j 21:54	6° $\overline{11}$ '06		opposition	-2694 May 24 j 22:59	9° $\overline{47}$ '52	1°34'57
opposition	-2700 Mar 15 j 08:44	2° $\overline{54}$ '44	2°52'51	min. Earth dist.	-2694 May 25 j 09:26	9° $\overline{45}$ '56	9.01242 AU
min. Earth dist.	-2700 Mar 15 j 14:01	2° $\overline{53}$ '45	9.08151 AU	direct	-2694 Aug 03 j 09:24	6° $\overline{29}$ '25	
	-2700 May 02 j 03:17	30° $\overline{R}$ ' $\overline{00}$		evening set	-2694 Nov 11 j 08:21	13° $\overline{29}$ '57	
direct	-2700 May 25 j 22:33	29° $\overline{33}$ '25			-2694 Nov 24 j 01:39	15° $\overline{00}$ '00	
	-2700 Jun 18 j 14:46	0° $\overline{00}$ '00		conjunction	-2694 Nov 27 j 21:53	15° $\overline{27}$ '27	1°05'22
evening set	-2700 Sep 06 j 07:21	6° $\overline{40}$ '53		minimum elong	-2694 Nov 27 j 21:55	15° $\overline{27}$ '28	1°05'20
conjunction	-2700 Sep 22 j 21:51	8° $\overline{36}$ '36	2°23'24	max. Earth dist.	-2694 Nov 27 j 09:34	15° $\overline{23}$ '47	10.96698 AU
minimum elong	-2700 Sep 22 j 21:51	8° $\overline{36}$ '36	2°23'26	morning rise	-2694 Dec 14 j 13:12	17° $\overline{25}$ '36	
max. Earth dist.	-2700 Sep 22 j 14:23	8° $\overline{34}$ '25	11.10892 AU	retrograde	-2693 Mar 27 j 06:47	24° $\overline{38}$ '33	
morning rise	-2700 Oct 09 j 09:12	10° $\overline{31}$ '27		opposition	-2693 Jun 06 j 06:35	21° $\overline{17}$ '56	1°03'39
retrograde	-2699 Jan 16 j 09:55	17° $\overline{23}$ '02		min. Earth dist.	-2693 Jun 06 j 16:55	21° $\overline{16}$ '01	8.91673 AU
opposition	-2699 Mar 27 j 06:24	14° $\overline{06}$ '48	2°55'10	direct	-2693 Aug 15 j 02:52	17° $\overline{59}$ '16	
min. Earth dist.	-2699 Mar 27 j 12:58	14° $\overline{05}$ '35	9.13417 AU	evening set	-2693 Nov 22 j 21:10	25° $\overline{03}$ '53	
direct	-2699 Jun 06 j 23:33	10° $\overline{46}$ '23					
evening set	-2699 Sep 17 j 14:32	17° $\overline{49}$ '15		conjunction	-2693 Dec 09 j 12:55	27° $\overline{03}$ '22	0°38'17
				minimum elong	-2693 Dec 09 j 12:56	27° $\overline{03}$ '22	0°38'14

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 18

Attention, astronomical year style is used: The year -2693 in astronomical counting style is the year 2694 BCE in historical counting style.

max. Earth dist.	-2693 Dec 09 j 00:28	26° $\mathbb{M}$ 59'37	10.86247 AU	conjunction	-2686 Feb 24 j 05:49	14° $\approx$ 00'45	-2°-4'-39
morning rise	-2693 Dec 26 j 07:35	29° $\mathbb{M}$ 03'45		minimum elong	-2686 Feb 24 j 05:46	14° $\approx$ 00'44	2°04'43
	-2692 Jan 03 j 08:53	0° $\mathcal{A}$		max. Earth dist.	-2686 Feb 24 j 06:15	14° $\approx$ 00'54	10.09813 AU
retrograde	-2692 Apr 07 j 22:14	6° $\mathcal{A}$ 25'39			-2686 Mar 03 j 20:00	15° $\approx$	
opposition	-2692 Jun 17 j 19:44	3° $\mathcal{A}$ 03'37	0°28'58	morning rise	-2686 Mar 13 j 22:42	16° $\approx$ 18'06	
min. Earth dist.	-2692 Jun 18 j 05:46	3° $\mathcal{A}$ 01'44	8.80336 AU	retrograde	-2686 Jun 29 j 18:51	24° $\approx$ 43'05	
	-2692 Aug 08 j 15:06	30° $\mathbb{R}$ $\mathbb{M}$		opposition	-2686 Sep 06 j 01:28	21° $\approx$ 12'50	-2°-44'-50
direct	-2692 Aug 26 j 03:12	29° $\mathbb{M}$ 44'29		min. Earth dist.	-2686 Sep 05 j 23:41	21° $\approx$ 13'12	8.05022 AU
	-2692 Sep 12 j 11:28	0° $\mathcal{A}$		direct	-2686 Nov 11 j 06:01	17° $\approx$ 47'09	
evening set	-2692 Dec 03 j 17:33	6° $\mathcal{A}$ 54'46		evening set	-2685 Feb 21 j 10:39	25° $\approx$ 52'37	
conjunction	-2692 Dec 20 j 12:07	8° $\mathcal{A}$ 56'34	0°09'01	conjunction	-2685 Mar 11 j 02:25	28° $\approx$ 10'53	-2°-17'-14
minimum elong	-2692 Dec 20 j 12:07	8° $\mathcal{A}$ 56'34	0°08'57	minimum elong	-2685 Mar 11 j 02:24	28° $\approx$ 10'52	2°17'17
behind sun begin	-2692 Dec 20 j 06:05	8° $\mathcal{A}$ 54'45		max. Earth dist.	-2685 Mar 11 j 06:13	28° $\approx$ 12'07	10.00567 AU
behind sun end	-2692 Dec 20 j 18:10	8° $\mathcal{A}$ 58'24			-2685 Mar 24 j 23:57	0° $\mathcal{H}$	
max. Earth dist.	-2692 Dec 20 j 00:59	8° $\mathcal{A}$ 53'11	10.74220 AU	morning rise	-2685 Mar 28 j 22:39	0° $\mathcal{H}$ 30'35	
morning rise	-2691 Jan 06 j 10:23	10° $\mathcal{A}$ 59'32		retrograde	-2685 Jul 14 j 17:41	9° $\mathcal{H}$ 01'40	
desc. node	-2691 Apr 11 j 07:48	18° $\mathcal{A}$ 26'57		opposition	-2685 Sep 20 j 12:02	5° $\mathcal{H}$ 30'49	-2°-55'-45
retrograde	-2691 Apr 20 j 23:06	18° $\mathcal{A}$ 31'34		min. Earth dist.	-2685 Sep 20 j 07:46	5° $\mathcal{H}$ 31'42	7.97151 AU
opposition	-2691 Jun 30 j 14:57	15° $\mathcal{A}$ 08'02	0°-7'-58	direct	-2685 Nov 25 j 12:00	2° $\mathcal{H}$ 03'52	
min. Earth dist.	-2691 Jun 30 j 23:41	15° $\mathcal{A}$ 06'22	8.67675 AU	evening set	-2684 Mar 07 j 13:00	10° $\mathcal{H}$ 17'30	
direct	-2691 Sep 07 j 08:21	11° $\mathcal{A}$ 48'13					
evening set	-2691 Dec 15 j 23:10	19° $\mathcal{A}$ 05'39		conjunction	-2684 Mar 25 j 08:44	12° $\mathcal{H}$ 37'52	-2°-21'-31
conjunction	-2690 Jan 01 j 20:57	21° $\mathcal{A}$ 10'04	0°-21'-28	minimum elong	-2684 Mar 25 j 08:44	12° $\mathcal{H}$ 37'53	2°21'33
minimum elong	-2690 Jan 01 j 20:56	21° $\mathcal{A}$ 10'04	0°21'34	max. Earth dist.	-2684 Mar 25 j 16:09	12° $\mathcal{H}$ 40'20	9.94138 AU
max. Earth dist.	-2690 Jan 01 j 12:09	21° $\mathcal{A}$ 07'22	10.61093 AU	morning rise	-2684 Apr 12 j 07:59	14° $\mathcal{H}$ 59'23	
morning rise	-2690 Jan 18 j 22:52	23° $\mathcal{A}$ 15'52		retrograde	-2684 Jul 28 j 19:06	23° $\mathcal{H}$ 33'06	
	-2690 Mar 30 j 19:42	0° $\mathcal{B}$		opposition	-2684 Oct 04 j 01:33	20° $\mathcal{H}$ 02'01	-2°-55'-40
retrograde	-2690 May 04 j 09:09	0° $\mathcal{B}$ 58'56		min. Earth dist.	-2684 Oct 03 j 18:38	20° $\mathcal{H}$ 03'28	7.92362 AU
	-2690 Jun 08 j 10:21	30° $\mathbb{R}$ $\mathcal{A}$		direct	-2684 Dec 09 j 00:21	16° $\mathcal{H}$ 33'57	
opposition	-2690 Jul 13 j 17:12	27° $\mathcal{A}$ 33'51	0°-45'-41	evening set	-2683 Mar 22 j 22:15	24° $\mathcal{H}$ 53'24	
min. Earth dist.	-2690 Jul 13 j 23:35	27° $\mathcal{A}$ 32'37	8.54217 AU	conjunction	-2683 Apr 09 j 21:35	27° $\mathcal{H}$ 15'14	-2°-16'-50
direct	-2690 Sep 19 j 20:03	24° $\mathcal{A}$ 13'10		minimum elong	-2683 Apr 09 j 21:37	27° $\mathcal{H}$ 15'15	2°16'51
	-2690 Dec 14 j 20:16	0° $\mathcal{B}$		max. Earth dist.	-2683 Apr 10 j 08:16	27° $\mathcal{H}$ 18'46	9.91056 AU
evening set	-2690 Dec 28 j 15:31	1° $\mathcal{B}$ 39'04		morning rise	-2683 Apr 27 j 23:16	29° $\mathcal{H}$ 37'51	
conjunction	-2689 Jan 14 j 16:35	3° $\mathcal{B}$ 46'18	0°-51'-41		-2683 Apr 30 j 19:56	0° $\mathcal{Y}$	
minimum elong	-2689 Jan 14 j 16:33	3° $\mathcal{B}$ 46'17	0°51'47	retrograde	-2683 Aug 12 j 19:15	8° $\mathcal{Y}$ 10'13	
max. Earth dist.	-2689 Jan 14 j 10:11	3° $\mathcal{B}$ 44'17	10.47441 AU	opposition	-2683 Oct 18 j 15:42	4° $\mathcal{Y}$ 39'22	-2°-44'-14
morning rise	-2689 Jan 31 j 22:15	5° $\mathcal{B}$ 55'02		min. Earth dist.	-2683 Oct 18 j 06:37	4° $\mathcal{Y}$ 41'16	7.91053 AU
retrograde	-2689 May 18 j 05:26	13° $\mathcal{B}$ 49'39		direct	-2683 Dec 23 j 17:26	1° $\mathcal{Y}$ 10'21	
opposition	-2689 Jul 27 j 02:52	10° $\mathcal{B}$ 23'01	-1°-22'-24	evening set	-2682 Apr 07 j 10:43	9° $\mathcal{Y}$ 32'43	
min. Earth dist.	-2689 Jul 27 j 06:46	10° $\mathcal{B}$ 22'15	8.40576 AU	conjunction	-2682 Apr 25 j 13:00	11° $\mathcal{Y}$ 55'13	-2°-3'-20
direct	-2689 Oct 02 j 15:27	7° $\mathcal{B}$ 01'17		minimum elong	-2682 Apr 25 j 13:03	11° $\mathcal{Y}$ 55'15	2°03'20
evening set	-2688 Jan 10 j 19:57	14° $\mathcal{B}$ 36'41		max. Earth dist.	-2682 Apr 26 j 02:01	11° $\mathcal{Y}$ 59'32	9.91590 AU
conjunction	-2688 Jan 28 j 00:24	16° $\mathcal{B}$ 46'48	-1°-20'-8	morning rise	-2682 May 13 j 16:20	14° $\mathcal{Y}$ 18'05	
minimum elong	-2688 Jan 28 j 00:21	16° $\mathcal{B}$ 46'47	1°20'13	retrograde	-2682 Aug 27 j 15:16	22° $\mathcal{Y}$ 45'18	
max. Earth dist.	-2688 Jan 27 j 19:56	16° $\mathcal{B}$ 45'22	10.33909 AU	opposition	-2682 Nov 02 j 04:17	19° $\mathcal{Y}$ 15'05	-2°-22'-10
morning rise	-2688 Feb 14 j 09:57	18° $\mathcal{B}$ 58'33		min. Earth dist.	-2682 Nov 01 j 18:00	19° $\mathcal{Y}$ 17'14	7.93347 AU
retrograde	-2688 May 31 j 10:59	27° $\mathcal{B}$ 04'28		direct	-2681 Jan 07 j 13:31	15° $\mathcal{Y}$ 45'25	
opposition	-2688 Aug 08 j 19:46	23° $\mathcal{B}$ 36'24	-1°-56'-2	evening set	-2681 Apr 22 j 22:39	24° $\mathcal{Y}$ 07'35	
min. Earth dist.	-2688 Aug 08 j 21:40	23° $\mathcal{B}$ 36'01	8.27407 AU	conjunction	-2681 May 11 j 02:50	26° $\mathcal{Y}$ 29'52	-1°-42'-2
direct	-2688 Oct 14 j 18:27	20° $\mathcal{B}$ 13'24		minimum elong	-2681 May 11 j 02:54	26° $\mathcal{Y}$ 29'53	1°42'00
evening set	-2687 Jan 23 j 12:51	27° $\mathcal{B}$ 58'57		max. Earth dist.	-2681 May 11 j 17:03	26° $\mathcal{Y}$ 34'32	9.95702 AU
	-2687 Feb 08 j 07:50	0° $\approx$		morning rise	-2681 May 29 j 06:44	28° $\mathcal{Y}$ 52'02	
conjunction	-2687 Feb 09 j 20:54	0° $\approx$ 11'56	-1°-45'-3		-2681 Jun 07 j 05:04	0° $\mathcal{B}$	
minimum elong	-2687 Feb 09 j 20:50	0° $\approx$ 11'55	1°45'08	retrograde	-2681 Sep 11 j 03:46	7° $\mathcal{B}$ 10'52	
max. Earth dist.	-2687 Feb 09 j 18:33	0° $\approx$ 11'10	10.21156 AU	opposition	-2681 Nov 16 j 13:08	3° $\mathcal{B}$ 41'42	-1°-51'-17
morning rise	-2687 Feb 27 j 10:13	2° $\approx$ 26'36		min. Earth dist.	-2681 Nov 16 j 02:33	3° $\mathcal{B}$ 43'55	7.99068 AU
retrograde	-2687 Jun 15 j 00:07	10° $\approx$ 42'53		direct	-2680 Jan 22 j 10:15	0° $\mathcal{B}$ 11'41	
opposition	-2687 Aug 22 j 19:36	7° $\approx$ 13'34	-2°-24'-16	evening set	-2680 May 07 j 06:38	8° $\mathcal{B}$ 30'45	
min. Earth dist.	-2687 Aug 22 j 19:52	7° $\approx$ 13'31	8.15345 AU	conjunction	-2680 May 25 j 11:17	10° $\mathcal{B}$ 51'52	-1°-14'-37
direct	-2687 Oct 28 j 07:07	3° $\approx$ 49'13		minimum elong	-2680 May 25 j 11:20	10° $\mathcal{B}$ 51'53	1°14'34
evening set	-2686 Feb 06 j 18:00	11° $\approx$ 45'01		max. Earth dist.	-2680 May 26 j 01:29	10° $\mathcal{B}$ 56'29	10.03065 AU

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 19

Attention, astronomical year style is used: The year -2680 in astronomical counting style is the year 2681 BCE in historical counting style.

morning rise	-2680 Jun 12 j 14:21	13° $\text{U}$ 12'26		evening set	-2674 Jul 28 j 18:34	27° $\text{S}$ 15'42	
	-2680 Jun 27 j 00:15	15° $\text{U}$					
retrograde	-2680 Sep 24 j 06:16	21° $\text{U}$ 20'35		conjunction	-2674 Aug 14 j 23:59	29° $\text{S}$ 19'04	1°44'03
opposition	-2680 Nov 29 j 16:24	17° $\text{U}$ 52'48	-1°-14'-8	minimum elong	-2674 Aug 14 j 23:55	29° $\text{S}$ 19'03	1°44'06
min. Earth dist.	-2680 Nov 29 j 06:11	17° $\text{U}$ 54'54	8.07800 AU	max. Earth dist.	-2674 Aug 15 j 02:16	29° $\text{S}$ 19'45	10.79643 AU
	-2679 Jan 09 j 21:40	15° $\text{R}$ $\text{U}$			-2674 Aug 20 j 16:19	0° $\text{Q}$	
direct	-2679 Feb 05 j 03:53	14° $\text{U}$ 22'47		morning rise	-2674 Sep 01 j 00:21	1° $\text{Q}$ 20'55	
	-2679 Mar 03 j 09:42	15° $\text{U}$		retrograde	-2674 Dec 08 j 21:53	8° $\text{Q}$ 25'54	
evening set	-2679 May 22 j 07:24	22° $\text{U}$ 36'16		opposition	-2673 Feb 15 j 07:04	5° $\text{Q}$ 07'31	2°19'08
				min. Earth dist.	-2673 Feb 15 j 06:03	5° $\text{Q}$ 07'42	8.85793 AU
conjunction	-2679 Jun 09 j 10:56	24° $\text{U}$ 55'22	0°-43'-13	direct	-2673 Apr 27 j 07:24	1° $\text{Q}$ 43'12	
minimum elong	-2679 Jun 09 j 10:58	24° $\text{U}$ 55'23	0°43'10	evening set	-2673 Aug 10 j 02:29	9° $\text{Q}$ 05'58	
max. Earth dist.	-2679 Jun 10 j 00:08	24° $\text{U}$ 59'37	10.13150 AU				
morning rise	-2679 Jun 27 j 11:44	27° $\text{U}$ 13'32		conjunction	-2673 Aug 27 j 02:43	11° $\text{Q}$ 06'29	2°02'05
	-2679 Jul 20 j 12:12	0° $\text{II}$		minimum elong	-2673 Aug 27 j 02:40	11° $\text{Q}$ 06'28	2°02'07
retrograde	-2679 Oct 07 j 23:27	5° $\text{II}$ 09'49		max. Earth dist.	-2673 Aug 27 j 02:02	11° $\text{Q}$ 06'16	10.91423 AU
opposition	-2679 Dec 13 j 12:59	1° $\text{II}$ 43'35	0°-33'-31	morning rise	-2673 Sep 12 j 22:20	13° $\text{Q}$ 05'38	
min. Earth dist.	-2679 Dec 13 j 03:14	1° $\text{II}$ 45'35	8.18951 AU		-2673 Sep 29 j 20:01	15° $\text{Q}$	
	-2678 Jan 04 j 16:31	30° $\text{R}$ $\text{U}$		retrograde	-2673 Dec 20 j 16:30	20° $\text{Q}$ 04'36	
direct	-2678 Feb 19 j 16:12	28° $\text{U}$ 13'56		opposition	-2672 Feb 27 j 11:53	16° $\text{Q}$ 47'16	2°37'43
	-2678 Apr 06 j 04:49	0° $\text{II}$		min. Earth dist.	-2672 Feb 27 j 12:30	16° $\text{Q}$ 47'09	8.96796 AU
evening set	-2678 Jun 05 j 22:29	6° $\text{II}$ 19'59			-2672 Mar 23 j 14:05	15° $\text{R}$ $\text{Q}$	
				direct	-2672 May 08 j 20:42	13° $\text{Q}$ 24'21	
conjunction	-2678 Jun 23 j 23:27	8° $\text{II}$ 36'25	0°-10'-5		-2672 Jun 23 j 03:42	15° $\text{Q}$	
minimum elong	-2678 Jun 23 j 23:27	8° $\text{II}$ 36'25	0°10'01	evening set	-2672 Aug 21 j 01:15	20° $\text{Q}$ 39'54	
behind sun begin	-2678 Jun 23 j 17:37	8° $\text{II}$ 34'35					
behind sun end	-2678 Jun 24 j 05:17	8° $\text{II}$ 38'15		conjunction	-2672 Sep 06 j 21:01	22° $\text{Q}$ 38'03	2°14'45
max. Earth dist.	-2678 Jun 24 j 11:13	8° $\text{II}$ 40'08	10.25285 AU	minimum elong	-2672 Sep 06 j 20:59	22° $\text{Q}$ 38'02	2°14'48
morning rise	-2678 Jul 11 j 20:40	10° $\text{II}$ 51'35		max. Earth dist.	-2672 Sep 06 j 18:33	22° $\text{Q}$ 37'19	11.01436 AU
asc. node	-2678 Oct 16 j 16:13	18° $\text{II}$ 34'32		morning rise	-2672 Sep 23 j 12:28	24° $\text{Q}$ 34'58	
retrograde	-2678 Oct 21 j 07:03	18° $\text{II}$ 35'44			-2672 Nov 18 j 17:13	0° $\text{np}$	
opposition	-2678 Dec 27 j 02:03	15° $\text{II}$ 11'09	0°07'44	retrograde	-2672 Dec 31 j 07:05	1° $\text{np}$ 29'34	
min. Earth dist.	-2678 Dec 26 j 16:53	15° $\text{II}$ 13'00	8.31803 AU		-2671 Feb 13 j 04:32	30° $\text{R}$ $\text{Q}$	
direct	-2677 Mar 05 j 21:32	11° $\text{II}$ 42'10		opposition	-2671 Mar 10 j 12:56	28° $\text{Q}$ 13'02	2°49'37
evening set	-2677 Jun 20 j 02:48	19° $\text{II}$ 39'41		min. Earth dist.	-2671 Mar 10 j 15:25	28° $\text{Q}$ 12'34	9.05828 AU
				direct	-2671 May 21 j 02:09	24° $\text{Q}$ 51'24	
conjunction	-2677 Jul 07 j 23:56	21° $\text{II}$ 52'58	0°22'49		-2671 Aug 14 j 12:19	0° $\text{np}$	
minimum elong	-2677 Jul 07 j 23:55	21° $\text{II}$ 52'57	0°22'53	evening set	-2671 Sep 01 j 16:38	2° $\text{np}$ 00'46	
max. Earth dist.	-2677 Jul 08 j 10:10	21° $\text{II}$ 56'09	10.38718 AU				
morning rise	-2677 Jul 25 j 16:26	24° $\text{II}$ 04'47		conjunction	-2671 Sep 18 j 08:40	3° $\text{np}$ 57'02	2°21'54
	-2677 Sep 21 j 08:33	0° $\text{S}$		minimum elong	-2671 Sep 18 j 08:39	3° $\text{np}$ 57'02	2°21'56
retrograde	-2677 Nov 03 j 04:47	1° $\text{S}$ 37'16		max. Earth dist.	-2671 Sep 18 j 04:13	3° $\text{np}$ 55'44	11.09320 AU
	-2677 Dec 17 j 00:19	30° $\text{R}$ $\text{II}$		morning rise	-2671 Oct 04 j 20:55	5° $\text{np}$ 52'18	
opposition	-2676 Jan 09 j 07:29	28° $\text{II}$ 14'23	0°47'16	retrograde	-2670 Jan 11 j 19:54	12° $\text{np}$ 44'06	
min. Earth dist.	-2676 Jan 08 j 23:31	28° $\text{II}$ 15'58	8.45606 AU	opposition	-2670 Mar 22 j 11:06	9° $\text{np}$ 28'05	2°54'48
direct	-2676 Mar 18 j 19:05	24° $\text{II}$ 46'19		min. Earth dist.	-2670 Mar 22 j 16:17	9° $\text{np}$ 27'08	9.12577 AU
	-2676 Jun 10 j 12:44	0° $\text{S}$		direct	-2670 Jun 02 j 02:36	6° $\text{np}$ 07'36	
evening set	-2676 Jul 02 j 19:33	2° $\text{S}$ 34'49		evening set	-2670 Sep 13 j 02:05	13° $\text{np}$ 11'55	
conjunction	-2676 Jul 20 j 11:52	4° $\text{S}$ 44'42	0°53'36	conjunction	-2670 Sep 29 j 15:08	15° $\text{np}$ 06'52	2°23'32
minimum elong	-2676 Jul 20 j 11:50	4° $\text{S}$ 44'42	0°53'41	minimum elong	-2670 Sep 29 j 15:08	15° $\text{np}$ 06'52	2°23'34
max. Earth dist.	-2676 Jul 20 j 20:16	4° $\text{S}$ 47'18	10.52705 AU	max. Earth dist.	-2670 Sep 29 j 07:41	15° $\text{np}$ 04'41	11.14811 AU
morning rise	-2676 Aug 06 j 22:58	6° $\text{S}$ 53'02		morning rise	-2670 Oct 16 j 01:21	17° $\text{np}$ 01'01	
retrograde	-2676 Nov 14 j 18:42	14° $\text{S}$ 14'56		retrograde	-2669 Jan 23 j 05:58	23° $\text{np}$ 51'39	
opposition	-2675 Jan 21 j 05:51	10° $\text{S}$ 53'42	1°23'12	opposition	-2669 Apr 03 j 07:42	20° $\text{np}$ 35'49	2°53'23
min. Earth dist.	-2675 Jan 20 j 23:53	10° $\text{S}$ 54'52	8.59639 AU	min. Earth dist.	-2669 Apr 03 j 15:13	20° $\text{np}$ 34'27	9.16806 AU
direct	-2675 Apr 01 j 07:12	7° $\text{S}$ 26'47		direct	-2669 Jun 13 j 22:17	17° $\text{np}$ 16'19	
evening set	-2675 Jul 16 j 00:31	15° $\text{S}$ 06'11		evening set	-2669 Sep 24 j 07:03	24° $\text{np}$ 16'45	
conjunction	-2675 Aug 02 j 11:27	17° $\text{S}$ 12'43	1°21'01	conjunction	-2669 Oct 10 j 18:08	26° $\text{np}$ 10'56	2°19'46
minimum elong	-2675 Aug 02 j 11:24	17° $\text{S}$ 12'42	1°21'04	minimum elong	-2669 Oct 10 j 18:09	26° $\text{np}$ 10'56	2°19'47
max. Earth dist.	-2675 Aug 02 j 17:22	17° $\text{S}$ 14'30	10.66555 AU	max. Earth dist.	-2669 Oct 10 j 08:29	26° $\text{np}$ 08'07	11.17719 AU
morning rise	-2675 Aug 19 j 17:02	19° $\text{S}$ 17'39		morning rise	-2669 Oct 27 j 03:18	28° $\text{np}$ 04'34	
retrograde	-2675 Nov 27 j 00:24	26° $\text{S}$ 30'20			-2669 Nov 13 j 14:06	0° $\text{S}$	
opposition	-2674 Feb 02 j 21:30	23° $\text{S}$ 10'37	1°54'07	retrograde	-2668 Feb 03 j 17:41	4° $\text{S}$ 55'40	
min. Earth dist.	-2674 Feb 02 j 18:14	23° $\text{S}$ 11'14	8.73236 AU	opposition	-2668 Apr 14 j 03:46	1° $\text{S}$ 39'40	2°45'34
direct	-2674 Apr 14 j 10:39	19° $\text{S}$ 44'58		min. Earth dist.	-2668 Apr 14 j 12:21	1° $\text{S}$ 38'06	9.18359 AU

Attention, astronomical year style is used: The year -2668 in astronomical counting style is the year 2669 BCE in historical counting style.

	-2668 May 07 j 23:41	30° $\mathbb{R}$ $\mathbb{M}$		opposition	-2662 Jun 25 j 08:03	10° $\mathbb{Z}$ 01'55	0°08'30
direct	-2668 Jun 24 j 17:02	28° $\mathbb{M}$ 20'56		min. Earth dist.	-2662 Jun 25 j 17:54	10° $\mathbb{Z}$ 00'03	8.73494 AU
	-2668 Aug 09 j 21:27	0° $\mathbb{A}$		direct	-2662 Sep 02 j 07:51	6° $\mathbb{Z}$ 42'25	
evening set	-2668 Oct 04 j 09:19	5° $\mathbb{A}$ 18'47		desc. node	-2662 Sep 19 j 18:46	6° $\mathbb{Z}$ 58'15	
				evening set	-2662 Dec 10 j 22:33	13° $\mathbb{Z}$ 56'30	
conjunction	-2668 Oct 20 j 19:35	7° $\mathbb{A}$ 12'45	2°10'49				
minimum elong	-2668 Oct 20 j 19:37	7° $\mathbb{A}$ 12'46	2°10'48	conjunction	-2662 Dec 27 j 18:44	15° $\mathbb{Z}$ 59'44	0°-8'00
max. Earth dist.	-2668 Oct 20 j 09:14	7° $\mathbb{A}$ 09'44	11.17918 AU	minimum elong	-2662 Dec 27 j 18:44	15° $\mathbb{Z}$ 59'44	0°08'06
morning rise	-2668 Nov 06 j 04:33	9° $\mathbb{A}$ 06'26		behind sun begin	-2662 Dec 27 j 12:27	15° $\mathbb{Z}$ 57'49	
retrograde	-2667 Feb 14 j 09:17	15° $\mathbb{A}$ 59'34		behind sun end	-2662 Dec 28 j 01:02	16° $\mathbb{Z}$ 01'38	
opposition	-2667 Apr 26 j 00:17	12° $\mathbb{A}$ 43'06	2°31'40	max. Earth dist.	-2662 Dec 27 j 06:47	15° $\mathbb{Z}$ 56'04	10.66802 AU
min. Earth dist.	-2667 Apr 26 j 09:49	12° $\mathbb{A}$ 41'21	9.17145 AU	morning rise	-2661 Jan 13 j 18:59	18° $\mathbb{Z}$ 04'15	
direct	-2667 Jul 06 j 08:26	9° $\mathbb{A}$ 24'54		retrograde	-2661 Apr 28 j 20:05	25° $\mathbb{Z}$ 42'22	
evening set	-2667 Oct 15 j 10:41	16° $\mathbb{A}$ 21'31		opposition	-2661 Jul 08 j 07:16	22° $\mathbb{Z}$ 17'49	0°-29'-1
				min. Earth dist.	-2661 Jul 08 j 16:06	22° $\mathbb{Z}$ 16'07	8.59739 AU
conjunction	-2667 Oct 31 j 20:57	18° $\mathbb{A}$ 15'52	1°56'59	direct	-2661 Sep 14 j 15:57	18° $\mathbb{Z}$ 57'17	
minimum elong	-2667 Oct 31 j 21:00	18° $\mathbb{A}$ 15'53	1°56'57	evening set	-2661 Dec 23 j 09:47	26° $\mathbb{Z}$ 19'25	
max. Earth dist.	-2667 Oct 31 j 09:08	18° $\mathbb{A}$ 12'25	11.15345 AU				
morning rise	-2667 Nov 17 j 06:45	20° $\mathbb{A}$ 10'11		conjunction	-2660 Jan 09 j 09:13	28° $\mathbb{Z}$ 25'26	0°-38'-26
retrograde	-2666 Feb 26 j 01:55	27° $\mathbb{A}$ 06'58		minimum elong	-2660 Jan 09 j 09:12	28° $\mathbb{Z}$ 25'25	0°38'32
opposition	-2666 May 07 j 22:38	23° $\mathbb{A}$ 49'45	2°12'04	max. Earth dist.	-2660 Jan 08 j 23:14	28° $\mathbb{Z}$ 22'19	10.52747 AU
min. Earth dist.	-2666 May 08 j 09:44	23° $\mathbb{A}$ 47'43	9.13135 AU		-2660 Jan 22 j 01:56	0° $\mathbb{Z}$	
direct	-2666 Jul 17 j 21:47	20° $\mathbb{A}$ 31'49		morning rise	-2660 Jan 26 j 13:22	0° $\mathbb{Z}$ 32'55	
evening set	-2666 Oct 26 j 13:08	27° $\mathbb{A}$ 28'48		retrograde	-2660 May 11 j 10:29	8° $\mathbb{Z}$ 22'35	
max. Earth dist.	-2666 Nov 11 j 10:12	29° $\mathbb{A}$ 19'57	11.10021 AU	opposition	-2660 Jul 20 j 13:40	4° $\mathbb{Z}$ 56'16	-1°-6'-25
				min. Earth dist.	-2660 Jul 20 j 20:43	4° $\mathbb{Z}$ 54'54	8.45551 AU
conjunction	-2666 Nov 12 j 00:03	29° $\mathbb{A}$ 24'01	1°38'39	direct	-2660 Sep 26 j 09:15	1° $\mathbb{Z}$ 34'32	
minimum elong	-2666 Nov 12 j 00:06	29° $\mathbb{A}$ 24'02	1°38'36	evening set	-2659 Jan 04 j 08:38	9° $\mathbb{Z}$ 05'57	
	-2666 Nov 17 j 02:33	0° $\mathbb{M}$					
morning rise	-2666 Nov 28 j 11:40	1° $\mathbb{M}$ 19'30		conjunction	-2659 Jan 21 j 11:37	11° $\mathbb{Z}$ 14'54	-1°-7'-52
retrograde	-2665 Mar 10 j 00:25	8° $\mathbb{M}$ 21'39		minimum elong	-2659 Jan 21 j 11:34	11° $\mathbb{Z}$ 14'53	1°07'58
opposition	-2665 May 19 j 23:57	5° $\mathbb{M}$ 03'25	1°47'15	max. Earth dist.	-2659 Jan 21 j 04:41	11° $\mathbb{Z}$ 12'43	10.38551 AU
min. Earth dist.	-2665 May 20 j 12:23	5° $\mathbb{M}$ 01'08	9.06441 AU	morning rise	-2659 Feb 07 j 19:32	13° $\mathbb{Z}$ 25'27	
direct	-2665 Jul 29 j 14:13	1° $\mathbb{M}$ 45'29		retrograde	-2659 May 25 j 11:32	21° $\mathbb{Z}$ 26'49	
evening set	-2665 Nov 06 j 18:26	8° $\mathbb{M}$ 44'25		opposition	-2659 Aug 03 j 03:17	17° $\mathbb{Z}$ 58'50	-1°-41'-43
				min. Earth dist.	-2659 Aug 03 j 07:43	17° $\mathbb{Z}$ 57'58	8.31596 AU
conjunction	-2665 Nov 23 j 06:54	10° $\mathbb{M}$ 41'02	1°16'16	direct	-2659 Oct 09 j 09:15	14° $\mathbb{Z}$ 35'48	
minimum elong	-2665 Nov 23 j 06:57	10° $\mathbb{M}$ 41'03	1°16'14	evening set	-2658 Jan 17 j 19:54	22° $\mathbb{Z}$ 17'22	
max. Earth dist.	-2665 Nov 22 j 16:43	10° $\mathbb{M}$ 36'50	11.02145 AU				
morning rise	-2665 Dec 09 j 21:00	12° $\mathbb{M}$ 38'11		conjunction	-2658 Feb 04 j 02:32	24° $\mathbb{Z}$ 29'17	-1°-34'-35
	-2665 Dec 31 j 02:57	15° $\mathbb{M}$		minimum elong	-2658 Feb 04 j 02:28	24° $\mathbb{Z}$ 29'16	1°34'40
retrograde	-2664 Mar 21 j 04:33	19° $\mathbb{M}$ 47'19		max. Earth dist.	-2658 Feb 03 j 23:09	24° $\mathbb{Z}$ 28'12	10.24918 AU
opposition	-2664 May 31 j 05:21	16° $\mathbb{M}$ 27'45	1°17'49	morning rise	-2658 Feb 21 j 14:07	26° $\mathbb{Z}$ 42'51	
min. Earth dist.	-2664 May 31 j 17:29	16° $\mathbb{M}$ 25'30	8.97344 AU		-2658 Mar 21 j 05:30	0° $\approx$	
	-2664 Jun 20 j 16:20	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-2658 Jun 08 j 21:30	4° $\approx$ 55'24	
direct	-2664 Aug 09 j 07:57	13° $\mathbb{M}$ 09'35		opposition	-2658 Aug 17 j 00:20	1° $\approx$ 25'57	-2°-12'-40
	-2664 Sep 26 j 00:48	15° $\mathbb{M}$		min. Earth dist.	-2658 Aug 17 j 01:28	1° $\approx$ 25'43	8.18593 AU
evening set	-2664 Nov 17 j 04:25	20° $\mathbb{M}$ 12'00			-2658 Sep 04 j 09:45	30° $\mathbb{R}$ $\mathbb{Z}$	
				direct	-2658 Oct 22 j 17:57	28° $\mathbb{Z}$ 01'34	
conjunction	-2664 Dec 03 j 19:11	22° $\mathbb{M}$ 10'28	0°50'30		-2658 Dec 08 j 12:44	0° $\approx$	
minimum elong	-2664 Dec 03 j 19:13	22° $\mathbb{M}$ 10'29	0°50'27	evening set	-2657 Jan 31 j 19:44	5° $\approx$ 53'34	
max. Earth dist.	-2664 Dec 03 j 05:56	22° $\mathbb{M}$ 06'30	10.92034 AU				
morning rise	-2664 Dec 20 j 12:13	24° $\mathbb{M}$ 09'43		conjunction	-2657 Feb 18 j 06:04	8° $\approx$ 08'21	-1°-56'-47
	-2663 Feb 18 j 22:00	0° $\mathbb{Z}$		minimum elong	-2657 Feb 18 j 06:00	8° $\approx$ 08'20	1°56'50
retrograde	-2663 Apr 02 j 17:28	1° $\mathbb{Z}$ 27'19		max. Earth dist.	-2657 Feb 18 j 05:58	8° $\approx$ 08'20	10.12596 AU
	-2663 May 16 j 15:21	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-2657 Mar 07 j 21:19	10° $\approx$ 24'48	
opposition	-2663 Jun 12 j 15:45	28° $\mathbb{M}$ 06'12	0°44'33		-2657 Apr 16 j 07:30	15° $\approx$	
min. Earth dist.	-2663 Jun 13 j 02:46	28° $\mathbb{M}$ 04'08	8.86211 AU	retrograde	-2657 Jun 23 j 14:57	18° $\approx$ 47'05	
direct	-2663 Aug 21 j 06:32	24° $\mathbb{M}$ 47'29		opposition	-2657 Aug 31 j 04:04	15° $\approx$ 16'28	-2°-36'-57
	-2663 Nov 12 j 04:35	0° $\mathbb{Z}$		min. Earth dist.	-2657 Aug 31 j 02:17	15° $\approx$ 16'50	8.07277 AU
evening set	-2663 Nov 28 j 21:15	1° $\mathbb{Z}$ 54'58			-2657 Sep 03 j 12:57	15° $\mathbb{R}$ $\approx$	
				direct	-2657 Nov 05 j 11:46	11° $\approx$ 50'43	
conjunction	-2663 Dec 15 j 14:36	3° $\mathbb{Z}$ 55'40	0°22'06		-2656 Jan 04 j 05:07	15° $\approx$	
minimum elong	-2663 Dec 15 j 14:37	3° $\mathbb{Z}$ 55'41	0°22'02	evening set	-2656 Feb 15 j 07:54	19° $\approx$ 52'47	
max. Earth dist.	-2663 Dec 15 j 02:05	3° $\mathbb{Z}$ 51'53	10.80087 AU				
morning rise	-2662 Jan 01 j 11:02	5° $\mathbb{Z}$ 57'24		conjunction	-2656 Mar 03 j 22:02	22° $\approx$ 10'15	-2°-12'-40
retrograde	-2662 Apr 15 j 14:54	13° $\mathbb{Z}$ 24'42		minimum elong	-2656 Mar 03 j 21:59	22° $\approx$ 10'14	2°12'43



## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 21

Attention, astronomical year style is used: The year -2656 in astronomical counting style is the year 2657 BCE in historical counting style.

max. Earth dist.	-2656 Mar 04 j 01:04	22° <del>11</del> '15	10.02325 AU		-2650 May 01 j 20:27	15° <del>8</del>	
morning rise	-2656 Mar 21 j 16:49	24° <del>29</del> '13		evening set	-2650 May 16 j 05:11	16° <del>8</del> 46'43	
	-2656 May 09 j 01:00	0° <del>8</del>					
retrograde	-2656 Jul 07 j 13:42	2° <del>8</del> 58'50		conjunction	-2650 Jun 03 j 09:34	19° <del>8</del> 06'53	0°-57'-9
	-2656 Sep 06 j 22:47	30° <del>8</del>		minimum elong	-2650 Jun 03 j 09:37	19° <del>8</del> 06'54	0°57'06
opposition	-2656 Sep 13 j 13:07	29° <del>27</del> '27	-2°-52'-21	max. Earth dist.	-2650 Jun 04 j 01:29	19° <del>8</del> 12'02	10.08448 AU
min. Earth dist.	-2656 Sep 13 j 08:58	29° <del>28</del> '19	7.98346 AU	morning rise	-2650 Jun 21 j 11:30	21° <del>8</del> 26'15	
direct	-2656 Nov 18 j 13:47	26° <del>00</del> '23		retrograde	-2650 Oct 02 j 13:03	29° <del>8</del> 28'13	
	-2655 Jan 25 j 08:05	0° <del>8</del>		opposition	-2650 Dec 07 j 23:47	26° <del>8</del> 01'33	0°-51'-17
evening set	-2655 Mar 01 j 06:40	4° <del>8</del> 11'21		min. Earth dist.	-2650 Dec 07 j 12:00	26° <del>8</del> 03'58	8.14025 AU
				direct	-2649 Feb 13 j 18:11	22° <del>8</del> 32'05	
conjunction	-2655 Mar 19 j 00:38	6° <del>8</del> 31'05	-2°-20'-45		-2649 May 25 j 10:34	0° <del>8</del>	
minimum elong	-2655 Mar 19 j 00:37	6° <del>8</del> 31'05	2°20'47	evening set	-2649 May 31 j 01:28	0° <del>8</del> 41'49	
max. Earth dist.	-2655 Mar 19 j 06:45	6° <del>8</del> 33'07	9.94773 AU				
morning rise	-2655 Apr 05 j 22:42	8° <del>8</del> 52'07		conjunction	-2649 Jun 18 j 03:53	2° <del>8</del> 59'32	0°-24'-26
retrograde	-2655 Jul 22 j 15:22	17° <del>8</del> 25'49		minimum elong	-2649 Jun 18 j 03:55	2° <del>8</del> 59'33	0°24'22
opposition	-2655 Sep 28 j 02:02	13° <del>8</del> 54'08	-2°-57'-13	max. Earth dist.	-2649 Jun 18 j 18:48	3° <del>8</del> 04'17	10.20193 AU
min. Earth dist.	-2655 Sep 27 j 19:48	13° <del>8</del> 55'26	7.92396 AU	morning rise	-2649 Jul 06 j 02:42	5° <del>8</del> 16'05	
direct	-2655 Dec 03 j 00:00	10° <del>8</del> 25'56		retrograde	-2649 Oct 16 j 02:16	13° <del>8</del> 05'46	
evening set	-2654 Mar 16 j 13:20	18° <del>8</del> 43'44		opposition	-2649 Dec 21 j 16:43	9° <del>8</del> 40'53	0°-9'-56
				min. Earth dist.	-2649 Dec 21 j 06:27	9° <del>8</del> 42'58	8.26631 AU
conjunction	-2654 Apr 03 j 11:01	21° <del>8</del> 05'11	-2°-20'-1	direct	-2648 Feb 28 j 02:56	6° <del>8</del> 12'05	
minimum elong	-2654 Apr 03 j 11:03	21° <del>8</del> 05'11	2°20'03	asc. node	-2648 Mar 22 j 00:37	6° <del>8</del> 39'30	
max. Earth dist.	-2654 Apr 03 j 20:12	21° <del>8</del> 08'13	9.90473 AU	evening set	-2648 Jun 13 j 11:19	14° <del>8</del> 13'34	
morning rise	-2654 Apr 21 j 11:55	23° <del>8</del> 27'37					
	-2654 Jun 19 j 20:07	0° <del>8</del>		conjunction	-2648 Jul 01 j 10:14	16° <del>8</del> 28'14	0°08'52
retrograde	-2654 Aug 06 j 16:27	2° <del>8</del> 01'39		minimum elong	-2648 Jul 01 j 10:13	16° <del>8</del> 28'14	0°08'57
	-2654 Sep 24 j 04:15	30° <del>8</del>		behind sun begin	-2648 Jul 01 j 04:01	16° <del>8</del> 26'18	
opposition	-2654 Oct 12 j 16:38	28° <del>8</del> 30'08	-2°-50'-42	behind sun end	-2648 Jul 01 j 16:25	16° <del>8</del> 30'09	
min. Earth dist.	-2654 Oct 12 j 08:29	28° <del>8</del> 31'50	7.89857 AU	max. Earth dist.	-2648 Jul 01 j 22:39	16° <del>8</del> 32'07	10.33529 AU
direct	-2654 Dec 17 j 16:38	25° <del>8</del> 01'02		morning rise	-2648 Jul 19 j 04:46	18° <del>8</del> 41'31	
	-2653 Mar 04 j 13:39	0° <del>8</del>		retrograde	-2648 Oct 28 j 03:59	26° <del>8</del> 19'03	
evening set	-2653 Apr 01 j 01:01	3° <del>8</del> 22'59		opposition	-2647 Jan 03 j 01:58	22° <del>8</del> 55'59	0°30'38
				min. Earth dist.	-2647 Jan 02 j 17:36	22° <del>8</del> 57'39	8.40453 AU
conjunction	-2653 Apr 19 j 02:02	5° <del>8</del> 45'27	-2°-10'-18	direct	-2647 Mar 13 j 05:07	19° <del>8</del> 28'03	
minimum elong	-2653 Apr 19 j 02:05	5° <del>8</del> 45'28	2°10'18	evening set	-2647 Jun 27 j 09:34	27° <del>8</del> 20'30	
max. Earth dist.	-2653 Apr 19 j 14:01	5° <del>8</del> 49'25	9.89756 AU				
morning rise	-2653 May 07 j 05:02	8° <del>8</del> 08'30		conjunction	-2647 Jul 15 j 03:54	29° <del>8</del> 31'48	0°40'44
retrograde	-2653 Aug 21 j 14:01	16° <del>8</del> 38'56		minimum elong	-2647 Jul 15 j 03:52	29° <del>8</del> 31'47	0°40'48
opposition	-2653 Oct 27 j 06:26	13° <del>8</del> 08'03	-2°-33'-4	max. Earth dist.	-2647 Jul 15 j 12:57	29° <del>8</del> 34'36	10.47633 AU
min. Earth dist.	-2653 Oct 26 j 20:29	13° <del>8</del> 10'08	7.90933 AU		-2647 Jul 18 j 22:53	0° <del>8</del>	
direct	-2652 Jan 01 j 12:52	9° <del>8</del> 38'22		morning rise	-2647 Aug 01 j 17:26	1° <del>8</del> 41'35	
evening set	-2652 Apr 15 j 14:00	18° <del>8</del> 01'27		retrograde	-2647 Nov 09 j 20:28	9° <del>8</del> 07'54	
				opposition	-2646 Jan 16 j 03:34	5° <del>8</del> 46'31	1°08'18
conjunction	-2652 May 03 j 17:32	20° <del>8</del> 24'04	-1°-52'-11	min. Earth dist.	-2646 Jan 15 j 21:10	5° <del>8</del> 47'46	8.54650 AU
minimum elong	-2652 May 03 j 17:36	20° <del>8</del> 24'06	1°52'11	direct	-2646 Mar 26 j 22:28	2° <del>8</del> 19'38	
max. Earth dist.	-2652 May 04 j 07:44	20° <del>8</del> 28'45	9.92689 AU	evening set	-2646 Jul 10 j 19:53	10° <del>8</del> 02'54	
morning rise	-2652 May 21 j 21:34	22° <del>8</del> 46'48					
	-2652 Jul 30 j 14:32	0° <del>8</del>		conjunction	-2646 Jul 28 j 09:04	12° <del>8</del> 10'48	1°09'44
retrograde	-2652 Sep 04 j 05:35	1° <del>8</del> 10'08		minimum elong	-2646 Jul 28 j 09:01	12° <del>8</del> 10'47	1°09'48
	-2652 Oct 10 j 03:12	30° <del>8</del>		max. Earth dist.	-2646 Jul 28 j 14:49	12° <del>8</del> 12'34	10.61672 AU
opposition	-2652 Nov 09 j 17:29	27° <del>8</del> 40'21	-2°-5'-41	morning rise	-2646 Aug 14 j 17:13	14° <del>8</del> 17'08	
min. Earth dist.	-2652 Nov 09 j 06:06	27° <del>8</del> 42'44	7.95562 AU	retrograde	-2646 Nov 22 j 05:38	21° <del>8</del> 33'37	
direct	-2651 Jan 15 j 09:52	24° <del>8</del> 10'25		opposition	-2645 Jan 28 j 22:05	18° <del>8</del> 13'46	1°41'30
	-2651 Apr 10 j 14:21	0° <del>8</del>		min. Earth dist.	-2645 Jan 28 j 17:36	18° <del>8</del> 14'39	8.68424 AU
evening set	-2651 May 01 j 00:28	2° <del>8</del> 31'34		direct	-2645 Apr 09 j 06:21	14° <del>8</del> 48'05	
				evening set	-2645 Jul 23 j 18:57	22° <del>8</del> 22'34	
conjunction	-2651 May 19 j 05:12	4° <del>8</del> 53'25	-1°-27'-9				
minimum elong	-2651 May 19 j 05:15	4° <del>8</del> 53'26	1°27'07	conjunction	-2645 Aug 10 j 02:47	24° <del>8</del> 27'14	1°34'44
max. Earth dist.	-2651 May 19 j 20:48	4° <del>8</del> 58'31	9.99066 AU	minimum elong	-2645 Aug 10 j 02:44	24° <del>8</del> 27'13	1°34'48
morning rise	-2651 Jun 06 j 08:53	7° <del>8</del> 14'53		max. Earth dist.	-2645 Aug 10 j 05:58	24° <del>8</del> 28'12	10.74949 AU
	-2651 Aug 27 j 03:13	15° <del>8</del>		morning rise	-2645 Aug 27 j 05:22	26° <del>8</del> 30'21	
retrograde	-2651 Sep 18 j 13:19	15° <del>8</del> 28'25			-2645 Sep 28 j 00:37	0° <del>8</del>	
	-2651 Oct 11 j 02:42	15° <del>8</del>		retrograde	-2645 Dec 04 j 07:37	3° <del>8</del> 38'36	
opposition	-2651 Nov 23 j 23:47	12° <del>8</del> 00'04	-1°-30'-49	opposition	-2644 Feb 10 j 10:30	0° <del>8</del> 20'05	2°09'08
min. Earth dist.	-2651 Nov 23 j 11:40	12° <del>8</del> 02'35	8.03435 AU	min. Earth dist.	-2644 Feb 10 j 08:30	0° <del>8</del> 20'28	8.81184 AU
direct	-2650 Jan 30 j 04:04	8° <del>8</del> 30'14			-2644 Feb 14 j 19:44	30° <del>8</del>	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 22

Attention, astronomical year style is used: The year -2644 in astronomical counting style is the year 2645 BCE in historical counting style.

direct	-2644 Apr 21 j 06:08	26° <del>55</del> '39		min. Earth dist.	-2638 Apr 21 j 20:47	8° <del>18</del> '18	9.16102 AU
	-2644 Jun 23 j 22:30	0° <del>0</del>		direct	-2638 Jul 01 j 20:34	5° <del>01</del> '11	
evening set	-2644 Aug 04 j 07:31	4° <del>02</del> '15		evening set	-2638 Oct 11 j 05:20	11° <del>05</del> '42	
conjunction	-2644 Aug 21 j 10:04	6° <del>02</del> '38	1°54'58	conjunction	-2638 Oct 27 j 15:28	13° <del>05</del> '00	2°03'24
minimum elong	-2644 Aug 21 j 10:02	6° <del>02</del> '37	1°55'01	minimum elong	-2638 Oct 27 j 15:31	13° <del>05</del> '00	2°03'22
max. Earth dist.	-2644 Aug 21 j 10:36	6° <del>02</del> '37	10.86974 AU	max. Earth dist.	-2638 Oct 27 j 02:59	13° <del>04</del> '21	11.14803 AU
morning rise	-2644 Sep 07 j 07:32	8° <del>02</del> '54		morning rise	-2638 Nov 13 j 01:02	15° <del>04</del> '10	
	-2644 Nov 22 j 23:05	15° <del>0</del>		retrograde	-2637 Feb 21 j 11:30	22° <del>04</del> '20	
retrograde	-2644 Dec 15 j 05:03	15° <del>02</del> '53		opposition	-2637 May 03 j 07:49	19° <del>02</del> '51	2°21'03
	-2643 Jan 06 j 14:51	15° <del>0R</del>		min. Earth dist.	-2637 May 03 j 18:49	19° <del>02</del> '30	9.13179 AU
opposition	-2643 Feb 21 j 17:49	12° <del>00</del> '08	2°30'32	direct	-2637 Jul 13 j 11:50	16° <del>00</del> '29	
min. Earth dist.	-2643 Feb 21 j 18:45	12° <del>00</del> '75	8.92492 AU	evening set	-2637 Oct 22 j 07:01	23° <del>00</del> '41	
direct	-2643 May 03 j 21:52	8° <del>04</del> '45					
	-2643 Aug 07 j 03:19	15° <del>0</del>		conjunction	-2637 Nov 07 j 17:44	24° <del>05</del> '39	1°46'54
evening set	-2643 Aug 16 j 10:30	16° <del>00</del> '37		minimum elong	-2637 Nov 07 j 17:47	24° <del>05</del> '39	1°46'52
				max. Earth dist.	-2637 Nov 07 j 05:22	24° <del>05</del> '01	11.10650 AU
conjunction	-2643 Sep 02 j 08:09	18° <del>00</del> '24	2°09'58	morning rise	-2637 Nov 24 j 04:33	26° <del>05</del> '44	
minimum elong	-2643 Sep 02 j 08:07	18° <del>00</del> '24	2°10'01		-2637 Dec 23 j 00:14	0° <del>0</del>	
max. Earth dist.	-2643 Sep 02 j 05:16	18° <del>00</del> '15	10.97344 AU	retrograde	-2636 Mar 04 j 09:13	3° <del>05</del> '53	
morning rise	-2643 Sep 19 j 01:19	20° <del>00</del> '40		opposition	-2636 May 14 j 07:52	0° <del>05</del> '28	1°58'21
retrograde	-2643 Dec 26 j 19:34	26° <del>05</del> '14		min. Earth dist.	-2636 May 14 j 18:36	0° <del>05</del> '33	9.07731 AU
opposition	-2642 Mar 05 j 20:43	23° <del>04</del> '02	2°45'19		-2636 May 22 j 09:50	30° <del>0R</del>	
min. Earth dist.	-2642 Mar 06 j 00:22	23° <del>00</del> '39	9.01952 AU	direct	-2636 Jul 24 j 03:52	27° <del>00</del> '16	
direct	-2642 May 16 j 07:02	20° <del>01</del> '82			-2636 Sep 21 j 07:41	0° <del>0</del>	
evening set	-2642 Aug 28 j 05:23	27° <del>00</del> '39		evening set	-2636 Nov 01 j 10:56	4° <del>05</del> '19	
conjunction	-2642 Sep 13 j 22:51	29° <del>00</del> '27	2°19'29	conjunction	-2636 Nov 17 j 22:53	6° <del>05</del> '11	1°26'09
minimum elong	-2642 Sep 13 j 22:50	29° <del>00</del> '27	2°19'32	minimum elong	-2636 Nov 17 j 22:56	6° <del>05</del> '11	1°26'07
max. Earth dist.	-2642 Sep 13 j 16:51	29° <del>00</del> '25	11.05706 AU	max. Earth dist.	-2636 Nov 17 j 10:23	6° <del>05</del> '07	11.04056 AU
	-2642 Sep 18 j 12:39	0° <del>0</del>		morning rise	-2636 Dec 04 j 11:48	8° <del>05</del> '08	
morning rise	-2642 Sep 30 j 12:34	1° <del>00</del> '23			-2635 Feb 27 j 06:42	15° <del>0</del>	
retrograde	-2641 Jan 07 j 08:11	8° <del>00</del> '16		retrograde	-2635 Mar 16 j 11:14	15° <del>05</del> '14	
opposition	-2641 Mar 17 j 20:09	5° <del>00</del> '07	2°53'23		-2635 Apr 02 j 17:49	15° <del>0R</del>	
min. Earth dist.	-2641 Mar 18 j 01:25	4° <del>00</del> '59	9.09234 AU	opposition	-2635 May 26 j 11:21	11° <del>05</del> '44	1°30'44
direct	-2641 May 28 j 11:54	1° <del>00</del> '39		min. Earth dist.	-2635 May 26 j 22:17	11° <del>05</del> '24	8.99936 AU
evening set	-2641 Sep 08 j 17:25	8° <del>00</del> '46		direct	-2635 Aug 04 j 19:07	8° <del>05</del> '36	
					-2635 Nov 07 j 09:32	15° <del>0</del>	
conjunction	-2641 Sep 25 j 07:44	10° <del>00</del> '41	2°23'28	evening set	-2635 Nov 12 j 18:51	15° <del>05</del> '37	
minimum elong	-2641 Sep 25 j 07:43	10° <del>00</del> '41	2°23'30				
max. Earth dist.	-2641 Sep 25 j 00:20	10° <del>00</del> '39	11.11781 AU	conjunction	-2635 Nov 29 j 08:34	17° <del>05</del> '35	1°01'42
morning rise	-2641 Oct 11 j 18:47	12° <del>00</del> '36		minimum elong	-2635 Nov 29 j 08:36	17° <del>05</del> '35	1°01'40
retrograde	-2640 Jan 18 j 20:53	19° <del>00</del> '27		max. Earth dist.	-2635 Nov 28 j 19:18	17° <del>05</del> '31	10.95240 AU
opposition	-2640 Mar 28 j 17:35	16° <del>00</del> '11	2°54'47	morning rise	-2635 Dec 16 j 00:23	19° <del>05</del> '33	
min. Earth dist.	-2640 Mar 29 j 00:16	16° <del>00</del> '10	9.14102 AU	retrograde	-2634 Mar 28 j 19:47	26° <del>05</del> '47	
direct	-2640 Jun 08 j 10:09	12° <del>00</del> '51		opposition	-2634 Jun 07 j 19:37	23° <del>05</del> '26	0°58'57
evening set	-2640 Sep 19 j 00:08	19° <del>00</del> '53		min. Earth dist.	-2634 Jun 08 j 06:44	23° <del>05</del> '24	8.90059 AU
				direct	-2634 Aug 16 j 15:07	20° <del>05</del> '07	
conjunction	-2640 Oct 05 j 12:11	21° <del>00</del> '48	2°21'59	evening set	-2634 Nov 24 j 08:31	27° <del>05</del> '13	
minimum elong	-2640 Oct 05 j 12:12	21° <del>00</del> '48	2°22'00				
max. Earth dist.	-2640 Oct 05 j 03:25	21° <del>00</del> '45	11.15376 AU	conjunction	-2634 Dec 11 j 00:37	29° <del>05</del> '13	0°34'17
morning rise	-2640 Oct 21 j 21:38	23° <del>00</del> '42		minimum elong	-2634 Dec 11 j 00:38	29° <del>05</del> '13	0°34'13
	-2639 Jan 03 j 06:49	0° <del>0</del>		max. Earth dist.	-2634 Dec 10 j 12:01	29° <del>05</del> '09	10.84503 AU
retrograde	-2639 Jan 29 j 08:04	0° <del>05</del> '33			-2634 Dec 17 j 11:50	0° <del>0</del>	
	-2639 Feb 24 j 18:36	30° <del>0R</del>		morning rise	-2634 Dec 27 j 19:42	1° <del>05</del> '13	
opposition	-2639 Apr 09 j 13:59	27° <del>00</del> '16	2°49'40	retrograde	-2633 Apr 10 j 12:40	8° <del>05</del> '37	
min. Earth dist.	-2639 Apr 09 j 22:37	27° <del>00</del> '15	9.16413 AU	opposition	-2633 Jun 20 j 09:32	5° <del>05</del> '14	0°23'54
direct	-2639 Jun 20 j 04:17	23° <del>00</del> '57		min. Earth dist.	-2633 Jun 20 j 19:43	5° <del>05</del> '12	8.78466 AU
	-2639 Sep 21 j 18:09	0° <del>05</del>		direct	-2633 Aug 28 j 15:31	1° <del>05</del> '55	
evening set	-2639 Sep 30 j 03:37	0° <del>05</del> '56		evening set	-2633 Dec 06 j 05:58	9° <del>05</del> '06	
conjunction	-2639 Oct 16 j 14:12	2° <del>05</del> '50	2°15'13	conjunction	-2633 Dec 23 j 01:00	11° <del>05</del> '09	0°04'50
minimum elong	-2639 Oct 16 j 14:14	2° <del>05</del> '50	2°15'12	minimum elong	-2633 Dec 23 j 00:59	11° <del>05</del> '09	0°04'45
max. Earth dist.	-2639 Oct 16 j 03:04	2° <del>05</del> '47	11.16391 AU	behind sun begin	-2633 Dec 22 j 18:07	11° <del>05</del> '07	
morning rise	-2639 Nov 01 j 23:15	4° <del>05</del> '44		behind sun end	-2633 Dec 23 j 07:52	11° <del>05</del> '11	
retrograde	-2638 Feb 09 j 20:41	11° <del>05</del> '37		max. Earth dist.	-2633 Dec 22 j 14:30	11° <del>05</del> '05	10.72248 AU
opposition	-2638 Apr 21 j 10:14	8° <del>05</del> '20	2°38'19	morning rise	-2632 Jan 08 j 23:34	13° <del>05</del> '12	

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Attention, astronomical year style is used: The year -2632 in astronomical counting style is the year 2633 BCE in historical counting style.

desc. node	-2632 Feb 20 j 08:16	17°♄45'29		retrograde	-2626 Jul 16 j 16:11	11°♄34'50	
retrograde	-2632 Apr 22 j 14:33	20°♄45'59		opposition	-2626 Sep 22 j 08:46	8°♄03'54	-2°-56'-16
opposition	-2632 Jul 02 j 05:47	17°♄22'11	0°-13'-12	min. Earth dist.	-2626 Sep 22 j 03:29	8°♄04'59	7.96393 AU
min. Earth dist.	-2632 Jul 02 j 13:53	17°♄20'39	8.65621 AU	direct	-2626 Nov 27 j 07:29	4°♄36'50	
direct	-2632 Sep 08 j 21:40	14°♄02'12		evening set	-2625 Mar 10 j 11:50	12°♄51'15	
evening set	-2632 Dec 17 j 12:58	21°♄20'53					
conjunction	-2631 Jan 03 j 11:09	23°♄25'42	0°-25'-42	conjunction	-2625 Mar 28 j 08:00	15°♄11'50	-2°-21'-17
minimum elong	-2631 Jan 03 j 11:07	23°♄25'42	0°25'48	minimum elong	-2625 Mar 28 j 08:00	15°♄11'50	2°21'18
max. Earth dist.	-2631 Jan 03 j 02:34	23°♄23'04	10.58976 AU	max. Earth dist.	-2625 Mar 28 j 16:21	15°♄14'36	9.93603 AU
morning rise	-2631 Jan 20 j 13:27	25°♄31'54		morning rise	-2625 Apr 15 j 07:29	17°♄33'31	
retrograde	-2631 Mar 02 j 06:13	0°♄		retrograde	-2625 Jul 31 j 18:31	26°♄07'18	
retrograde	-2631 May 06 j 02:59	3°♄16'39		opposition	-2625 Oct 06 j 22:35	22°♄36'14	-2°-54'-35
	-2631 Jul 13 j 12:08	30°♄		min. Earth dist.	-2625 Oct 06 j 15:00	22°♄37'48	7.92056 AU
opposition	-2631 Jul 15 j 09:10	29°♄51'18	0°-50'-52	direct	-2625 Dec 11 j 20:54	19°♄08'04	
min. Earth dist.	-2631 Jul 15 j 15:03	29°♄50'09	8.52066 AU	evening set	-2624 Mar 24 j 21:43	27°♄27'59	
direct	-2631 Sep 21 j 10:21	26°♄30'25		conjunction	-2624 Apr 11 j 21:24	29°♄49'57	-2°-15'-20
	-2631 Nov 25 j 05:01	0°♄		minimum elong	-2624 Apr 11 j 21:27	29°♄49'57	2°15'20
evening set	-2631 Dec 30 j 07:02	3°♄57'45		max. Earth dist.	-2624 Apr 12 j 08:25	29°♄53'35	9.90977 AU
					-2624 Apr 13 j 03:47	0°♄	
conjunction	-2630 Jan 16 j 08:24	6°♄05'24	0°-55'-45	morning rise	-2624 Apr 29 j 23:21	2°♄12'38	
minimum elong	-2630 Jan 16 j 08:21	6°♄05'23	0°55'51	retrograde	-2624 Aug 14 j 18:10	10°♄44'36	
max. Earth dist.	-2630 Jan 16 j 01:33	6°♄03'15	10.45277 AU	opposition	-2624 Oct 20 j 12:45	7°♄13'50	-2°-41'-35
morning rise	-2630 Feb 02 j 14:33	8°♄14'35		min. Earth dist.	-2624 Oct 20 j 03:36	7°♄15'45	7.91192 AU
retrograde	-2630 May 20 j 01:13	16°♄10'53		direct	-2624 Dec 25 j 15:14	3°♄44'47	
opposition	-2630 Jul 28 j 19:57	12°♄44'02	-1°-27'-16	evening set	-2623 Apr 09 j 10:25	12°♄07'17	
min. Earth dist.	-2630 Jul 28 j 23:55	12°♄43'16	8.38436 AU				
direct	-2630 Oct 04 j 05:27	9°♄22'05		conjunction	-2623 Apr 27 j 12:55	14°♄29'48	-2°00'-40
evening set	-2629 Jan 12 j 13:08	16°♄59'05		minimum elong	-2623 Apr 27 j 12:59	14°♄29'49	2°00'39
				max. Earth dist.	-2623 Apr 28 j 01:43	14°♄34'01	9.91953 AU
conjunction	-2629 Jan 29 j 17:55	19°♄09'36	-1°-23'-48	morning rise	-2623 May 15 j 16:28	16°♄52'38	
minimum elong	-2629 Jan 29 j 17:52	19°♄09'35	1°23'53	retrograde	-2623 Aug 29 j 12:42	25°♄19'02	
max. Earth dist.	-2629 Jan 29 j 13:16	19°♄08'07	10.31822 AU	opposition	-2623 Nov 04 j 01:11	21°♄48'59	-2°-18'-10
morning rise	-2629 Feb 16 j 03:56	21°♄21'47		min. Earth dist.	-2623 Nov 03 j 15:12	21°♄51'04	7.93912 AU
retrograde	-2629 Jun 03 j 06:43	29°♄29'22		direct	-2622 Jan 09 j 11:56	18°♄19'19	
opposition	-2629 Aug 11 j 14:08	26°♄01'07	-2°00'-16	evening set	-2622 Apr 24 j 22:00	26°♄41'14	
min. Earth dist.	-2629 Aug 11 j 16:10	26°♄00'43	8.25419 AU				
direct	-2629 Oct 17 j 11:28	22°♄37'56		conjunction	-2622 May 13 j 02:15	29°♄03'25	-1°-38'-24
	-2628 Jan 22 j 23:47	0°♄		minimum elong	-2622 May 13 j 02:19	29°♄03'26	1°38'22
evening set	-2628 Jan 26 j 07:42	0°♄25'06		max. Earth dist.	-2622 May 13 j 15:59	29°♄07'56	9.96479 AU
					-2622 May 20 j 06:54	0°♄	
conjunction	-2628 Feb 12 j 16:10	2°♄38'28	-1°-48'-4	morning rise	-2622 May 31 j 06:14	1°♄25'28	
minimum elong	-2628 Feb 12 j 16:07	2°♄38'27	1°48'09	retrograde	-2622 Sep 12 j 23:32	9°♄43'10	
max. Earth dist.	-2628 Feb 12 j 14:37	2°♄37'58	10.19298 AU	opposition	-2622 Nov 18 j 09:35	6°♄14'13	-1°-46'-14
morning rise	-2628 Mar 01 j 05:55	4°♄53'32		min. Earth dist.	-2622 Nov 17 j 23:14	6°♄16'22	8.00030 AU
retrograde	-2628 Jun 16 j 19:53	13°♄11'18		direct	-2621 Jan 24 j 08:03	2°♄44'15	
opposition	-2628 Aug 24 j 15:04	9°♄41'50	-2°-27'-32	evening set	-2621 May 10 j 05:18	11°♄02'43	
min. Earth dist.	-2628 Aug 24 j 14:54	9°♄41'52	8.13674 AU				
direct	-2628 Oct 30 j 02:44	6°♄17'19		conjunction	-2621 May 28 j 09:54	13°♄23'39	-1°-10'-17
evening set	-2627 Feb 08 j 14:36	14°♄14'33		minimum elong	-2621 May 28 j 09:57	13°♄23'40	1°10'15
	-2627 Feb 14 j 12:08	15°♄		max. Earth dist.	-2621 May 28 j 23:41	13°♄28'07	10.04216 AU
					-2621 Jun 09 j 19:26	15°♄	
conjunction	-2627 Feb 26 j 02:55	16°♄30'39	-2°-6'-46	morning rise	-2621 Jun 15 j 12:55	15°♄43'59	
minimum elong	-2627 Feb 26 j 02:53	16°♄30'38	2°06'49	retrograde	-2621 Sep 27 j 01:37	23°♄50'47	
max. Earth dist.	-2627 Feb 26 j 04:47	16°♄31'15	10.08344 AU	opposition	-2621 Dec 02 j 12:04	20°♄23'14	-1°-8'-25
morning rise	-2627 Mar 15 j 20:07	18°♄48'19		min. Earth dist.	-2621 Dec 02 j 01:42	20°♄25'22	8.09106 AU
retrograde	-2627 Jul 01 j 15:30	27°♄14'20		direct	-2620 Feb 08 j 01:10	16°♄53'18	
opposition	-2627 Sep 07 j 21:37	23°♄43'57	-2°-46'-51	evening set	-2620 May 24 j 05:08	25°♄05'57	
min. Earth dist.	-2627 Sep 07 j 18:56	23°♄44'30	8.03798 AU				
direct	-2627 Nov 13 j 01:36	20°♄18'07		conjunction	-2620 Jun 11 j 08:31	27°♄24'47	0°-38'-31
evening set	-2626 Feb 23 j 08:37	28°♄24'42		minimum elong	-2620 Jun 11 j 08:33	27°♄24'47	0°38'27
	-2626 Mar 07 j 13:19	0°♄		max. Earth dist.	-2620 Jun 11 j 21:39	27°♄28'59	10.14608 AU
				morning rise	-2620 Jun 29 j 09:02	29°♄42'37	
conjunction	-2626 Mar 13 j 00:53	0°♄43'15	-2°-18'-14		-2620 Jul 01 j 16:33	0°♄	
minimum elong	-2626 Mar 13 j 00:51	0°♄43'15	2°18'17	retrograde	-2620 Oct 09 j 17:44	7°♄37'27	
max. Earth dist.	-2626 Mar 13 j 06:02	0°♄44'57	9.99568 AU	opposition	-2620 Dec 15 j 07:48	4°♄11'27	0°-27'-34
morning rise	-2626 Mar 30 j 21:21	3°♄03'12		min. Earth dist.	-2620 Dec 14 j 21:31	4°♄13'33	8.20521 AU

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Attention, astronomical year style is used: The year -2619 in astronomical counting style is the year 2620 BCE in historical counting style.

direct	-2619 Feb 21 j 13:10	0°II41'56		min. Earth dist.	-2613 Mar 01 j 01:55	18°Ω58'20	8.98214 AU
evening set	-2619 Jun 07 j 19:04	8°II46'58		direct	-2613 May 11 j 10:14	15°Ω35'39	
				evening set	-2613 Aug 23 j 13:42	22°Ω50'13	
conjunction	-2619 Jun 25 j 19:42	11°II03'01	0°-5'-20				
minimum elong	-2619 Jun 25 j 19:43	11°II03'01	0°05'16	conjunction	-2613 Sep 09 j 09:02	24°Ω48'05	2°16'00
behind sun begin	-2619 Jun 25 j 12:40	11°II00'49		minimum elong	-2613 Sep 09 j 09:01	24°Ω48'04	2°16'03
behind sun end	-2619 Jun 26 j 02:46	11°II05'14		max. Earth dist.	-2613 Sep 09 j 06:37	24°Ω47'22	11.02721 AU
max. Earth dist.	-2619 Jun 26 j 07:58	11°II06'53	10.26964 AU	morning rise	-2613 Sep 26 j 00:01	26°Ω44'44	
morning rise	-2619 Jul 13 j 16:23	13°II17'48			-2613 Oct 26 j 06:36	0°൬	
asc. node	-2619 Aug 25 j 02:49	18°II01'45		retrograde	-2612 Jan 02 j 18:58	3°൬38'42	
retrograde	-2619 Oct 22 j 23:57	21°II00'30		opposition	-2612 Mar 12 j 01:45	0°൬22'15	2°50'38
opposition	-2619 Dec 28 j 20:00	17°II36'10	0°13'34	min. Earth dist.	-2612 Mar 12 j 05:00	0°൬21'38	9.06983 AU
min. Earth dist.	-2619 Dec 28 j 10:29	17°II38'05	8.33556 AU		-2612 Mar 17 j 01:37	30°RΩ	
direct	-2618 Mar 07 j 17:39	14°II07'21		direct	-2612 May 22 j 15:36	27°Ω00'44	
evening set	-2618 Jun 21 j 22:00	22°II03'42			-2612 Jul 24 j 23:44	0°൬	
				evening set	-2612 Sep 03 j 04:08	4°൬09'15	
conjunction	-2618 Jul 09 j 18:40	24°II16'34	0°27'23				
minimum elong	-2618 Jul 09 j 18:39	24°II16'33	0°27'28	conjunction	-2612 Sep 19 j 19:42	6°൬05'18	2°22'21
max. Earth dist.	-2618 Jul 10 j 05:31	24°II19'56	10.40533 AU	minimum elong	-2612 Sep 19 j 19:42	6°൬05'18	2°22'24
morning rise	-2618 Jul 27 j 10:29	26°II27'56		max. Earth dist.	-2612 Sep 19 j 14:18	6°൬03'44	11.10327 AU
	-2618 Aug 27 j 09:28	0°Ω		morning rise	-2612 Oct 06 j 07:44	8°൬00'22	
retrograde	-2618 Nov 04 j 21:29	3°Ω59'04		retrograde	-2611 Jan 13 j 06:24	14°൬51'45	
opposition	-2617 Jan 11 j 00:29	0°Ω36'24	0°52'41	opposition	-2611 Mar 23 j 23:31	11°൬35'45	2°54'51
min. Earth dist.	-2617 Jan 10 j 16:52	0°Ω37'55	8.47458 AU	min. Earth dist.	-2611 Mar 24 j 05:22	11°൬34'41	9.13440 AU
	-2617 Jan 18 j 16:54	30°RII		direct	-2611 Jun 03 j 14:42	8°൬15'23	
direct	-2617 Mar 21 j 12:53	27°II08'30		evening set	-2611 Sep 14 j 12:39	15°൬18'59	
	-2617 May 20 j 15:11	0°Ω					
evening set	-2617 Jul 05 j 13:22	4°Ω55'47		conjunction	-2611 Oct 01 j 01:25	17°൬13'47	2°23'12
				minimum elong	-2611 Oct 01 j 01:26	17°൬13'47	2°23'14
conjunction	-2617 Jul 23 j 05:03	7°Ω05'15	0°57'45	max. Earth dist.	-2611 Sep 30 j 17:21	17°൬11'25	11.15518 AU
minimum elong	-2617 Jul 23 j 05:00	7°Ω05'14	0°57'49	morning rise	-2611 Oct 17 j 11:34	19°൬07'50	
max. Earth dist.	-2617 Jul 23 j 13:19	7°Ω07'48	10.54566 AU	retrograde	-2610 Jan 24 j 16:33	25°൬58'15	
morning rise	-2617 Aug 09 j 15:30	9°Ω13'08		opposition	-2610 Apr 04 j 19:41	22°൬42'24	2°52'30
retrograde	-2617 Nov 17 j 09:51	16°Ω33'44		min. Earth dist.	-2610 Apr 05 j 03:02	22°൬41'03	9.17351 AU
opposition	-2616 Jan 23 j 21:53	13°Ω12'43	1°27'56	direct	-2610 Jun 15 j 11:18	19°൬22'58	
min. Earth dist.	-2616 Jan 23 j 16:43	13°Ω13'44	8.61500 AU	evening set	-2610 Sep 25 j 17:01	26°൬22'54	
direct	-2616 Apr 03 j 00:01	9°Ω45'57					
evening set	-2616 Jul 17 j 16:59	17°Ω24'10		conjunction	-2610 Oct 12 j 04:06	28°൬17'00	2°18'41
				minimum elong	-2610 Oct 12 j 04:07	28°൬17'00	2°18'41
conjunction	-2616 Aug 04 j 03:09	19°Ω30'16	1°24'34	max. Earth dist.	-2610 Oct 11 j 18:50	28°൬14'18	11.18102 AU
minimum elong	-2616 Aug 04 j 03:06	19°Ω30'15	1°24'37		-2610 Oct 27 j 00:04	0°Ω	
max. Earth dist.	-2616 Aug 04 j 08:06	19°Ω31'46	10.68375 AU	morning rise	-2610 Oct 28 j 13:09	0°Ω10'35	
morning rise	-2616 Aug 21 j 08:09	21°Ω34'48		retrograde	-2609 Feb 05 j 05:46	7°Ω01'39	
retrograde	-2616 Nov 28 j 12:52	28°Ω46'20		opposition	-2609 Apr 16 j 15:26	3°Ω45'37	2°43'48
opposition	-2615 Feb 04 j 12:37	25°Ω26'46	1°58'01	min. Earth dist.	-2609 Apr 16 j 23:45	3°Ω44'06	9.18574 AU
min. Earth dist.	-2615 Feb 04 j 09:39	25°Ω27'21	8.75019 AU	direct	-2609 Jun 27 j 04:33	0°Ω26'59	
direct	-2615 Apr 16 j 04:13	22°Ω01'16		evening set	-2609 Oct 06 j 19:01	7°Ω24'27	
evening set	-2615 Jul 30 j 09:33	29°Ω30'52					
	-2615 Aug 03 j 12:24	0°Ω		conjunction	-2609 Oct 23 j 05:18	9°Ω18'26	2°09'02
				minimum elong	-2609 Oct 23 j 05:20	9°Ω18'26	2°09'01
conjunction	-2615 Aug 16 j 14:16	1°Ω33'48	1°46'53	max. Earth dist.	-2609 Oct 22 j 18:56	9°Ω15'25	11.17982 AU
minimum elong	-2615 Aug 16 j 14:13	1°Ω33'47	1°46'56	morning rise	-2609 Nov 08 j 14:17	11°Ω12'08	
max. Earth dist.	-2615 Aug 16 j 15:57	1°Ω34'18	10.81350 AU	retrograde	-2608 Feb 16 j 19:38	18°Ω05'25	
morning rise	-2615 Sep 02 j 14:06	3°Ω35'16		opposition	-2608 Apr 27 j 12:06	14°Ω48'54	2°29'05
retrograde	-2615 Dec 10 j 11:15	10°Ω39'19		min. Earth dist.	-2608 Apr 27 j 22:03	14°Ω47'06	9.17056 AU
opposition	-2614 Feb 16 j 21:18	7°Ω21'02	2°22'07	direct	-2608 Jul 07 j 18:15	11°Ω30'47	
min. Earth dist.	-2614 Feb 16 j 19:59	7°Ω21'17	8.87427 AU	evening set	-2608 Oct 16 j 20:18	18°Ω27'13	
direct	-2614 Apr 28 j 23:39	3°Ω56'53					
evening set	-2614 Aug 11 j 16:00	11°Ω18'31		conjunction	-2608 Nov 02 j 06:33	20°Ω21'36	1°54'33
				minimum elong	-2608 Nov 02 j 06:35	20°Ω21'37	1°54'31
conjunction	-2614 Aug 28 j 15:47	13°Ω18'42	2°04'09	max. Earth dist.	-2608 Nov 01 j 18:01	20°Ω17'56	11.15131 AU
minimum elong	-2614 Aug 28 j 15:44	13°Ω18'41	2°04'11	morning rise	-2608 Nov 18 j 16:37	22°Ω15'59	
max. Earth dist.	-2614 Aug 28 j 15:21	13°Ω18'34	10.92950 AU	retrograde	-2607 Feb 27 j 13:38	29°Ω13'07	
	-2614 Sep 11 j 22:41	15°Ω		opposition	-2607 May 09 j 10:37	25°Ω55'49	2°08'45
morning rise	-2614 Sep 14 j 10:50	15°Ω17'31		min. Earth dist.	-2607 May 09 j 22:16	25°Ω53'41	9.12792 AU
retrograde	-2614 Dec 22 j 04:40	22°Ω15'41		direct	-2607 Jul 19 j 09:36	22°Ω37'54	
opposition	-2613 Mar 01 j 01:19	18°Ω58'26	2°39'43	evening set	-2607 Oct 27 j 22:52	29°Ω34'51	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 25

Attention, astronomical year style is used: The year -2607 in astronomical counting style is the year 2608 BCE in historical counting style.

	-2607 Oct 31 j 13:59	0°♄		direct	-2601 Sep 28 j 23:00	3°♄50'53	
				evening set	-2600 Jan 06 j 23:50	11°♄23'30	
conjunction	-2607 Nov 13 j 09:57	1°♄30'10	1°35'39				
minimum elong	-2607 Nov 13 j 10:00	1°♄30'11	1°35'36	conjunction	-2600 Jan 24 j 03:13	13°♄32'47	-1°-11'-39
max. Earth dist.	-2607 Nov 12 j 20:00	1°♄26'04	11.09567 AU	minimum elong	-2600 Jan 24 j 03:10	13°♄32'46	1°11'44
morning rise	-2607 Nov 29 j 21:52	3°♄25'46		max. Earth dist.	-2600 Jan 23 j 20:55	13°♄30'48	10.36942 AU
retrograde	-2606 Mar 11 j 11:22	10°♄28'23		morning rise	-2600 Feb 10 j 11:25	15°♄43'41	
opposition	-2606 May 21 j 11:56	7°♄10'01	1°43'17	retrograde	-2600 May 27 j 05:44	23°♄46'27	
min. Earth dist.	-2606 May 22 j 00:18	7°♄07'45	9.05855 AU	opposition	-2600 Aug 04 j 19:46	20°♄18'20	-1°-46'-8
direct	-2606 Jul 31 j 01:11	3°♄52'06		min. Earth dist.	-2600 Aug 04 j 23:30	20°♄17'36	8.30003 AU
evening set	-2606 Nov 08 j 04:26	10°♄51'11		direct	-2600 Oct 11 j 00:11	16°♄55'11	
				evening set	-2599 Jan 19 j 12:43	24°♄38'03	
conjunction	-2606 Nov 24 j 17:14	12°♄47'57	1°12'48				
minimum elong	-2606 Nov 24 j 17:17	12°♄47'57	1°12'45	conjunction	-2599 Feb 05 j 19:40	26°♄50'19	-1°-37'-49
max. Earth dist.	-2606 Nov 24 j 03:37	12°♄43'55	11.01434 AU	minimum elong	-2599 Feb 05 j 19:37	26°♄50'18	1°37'54
morning rise	-2606 Dec 11 j 07:32	14°♄45'15		max. Earth dist.	-2599 Feb 05 j 16:19	26°♄49'15	10.23346 AU
	-2606 Dec 13 j 10:29	15°♄		morning rise	-2599 Feb 23 j 07:39	29°♄04'14	
retrograde	-2605 Mar 23 j 17:24	21°♄55'03			-2599 Mar 02 j 19:02	0°≈	
opposition	-2605 Jun 02 j 17:40	18°♄35'22	1°13'19	retrograde	-2599 Jun 10 j 16:46	7°≈18'07	
min. Earth dist.	-2605 Jun 03 j 05:19	18°♄33'12	8.96494 AU	opposition	-2599 Aug 18 j 17:48	3°≈48'33	-2°-16'-17
direct	-2605 Aug 11 j 20:03	15°♄17'11		min. Earth dist.	-2599 Aug 18 j 18:38	3°≈48'23	8.17085 AU
evening set	-2605 Nov 19 j 15:02	22°♄19'57		direct	-2599 Oct 24 j 09:58	0°≈24'01	
				evening set	-2598 Feb 02 j 14:10	8°≈17'22	
conjunction	-2605 Dec 06 j 06:03	24°♄18'38	0°46'39				
minimum elong	-2605 Dec 06 j 06:04	24°♄18'38	0°46'36	conjunction	-2598 Feb 20 j 00:46	10°≈32'30	-1°-59'-14
max. Earth dist.	-2605 Dec 05 j 16:39	24°♄14'37	10.91059 AU	minimum elong	-2598 Feb 20 j 00:42	10°≈32'29	1°59'18
morning rise	-2605 Dec 22 j 23:22	26°♄18'06		max. Earth dist.	-2598 Feb 20 j 00:15	10°≈32'20	10.11160 AU
	-2604 Jan 26 j 02:47	0°♄		morning rise	-2598 Mar 09 j 16:25	12°≈49'16	
retrograde	-2604 Apr 04 j 07:54	3°♄36'32			-2598 Mar 27 j 07:38	15°≈	
opposition	-2604 Jun 14 j 04:44	0°♄15'20	0°39'40	retrograde	-2598 Jun 25 j 11:14	21°≈12'41	
min. Earth dist.	-2604 Jun 14 j 15:47	0°♄13'15	8.85106 AU	opposition	-2598 Sep 01 j 22:26	17°≈41'59	-2°-39'-28
	-2604 Jun 17 j 14:40	30°♄		min. Earth dist.	-2598 Sep 01 j 20:49	17°≈42'19	8.05952 AU
direct	-2604 Aug 22 j 16:57	26°♄56'35			-2598 Oct 10 j 01:10	15°≈	
	-2604 Oct 23 j 11:29	0°♄		direct	-2598 Nov 07 j 04:34	14°≈16'05	
evening set	-2604 Nov 30 j 08:44	4°♄04'39			-2598 Dec 05 j 01:48	15°≈	
				evening set	-2597 Feb 17 j 03:41	22°≈19'25	
conjunction	-2604 Dec 17 j 02:18	6°♄05'36	0°18'01				
minimum elong	-2604 Dec 17 j 02:19	6°♄05'36	0°17'57	conjunction	-2597 Mar 06 j 18:07	24°≈37'10	-2°-14'-8
max. Earth dist.	-2604 Dec 16 j 12:55	6°♄01'32	10.78877 AU	minimum elong	-2597 Mar 06 j 18:05	24°≈37'10	2°14'11
morning rise	-2603 Jan 02 j 23:13	8°♄07'37		max. Earth dist.	-2597 Mar 06 j 20:53	24°≈38'05	10.01123 AU
retrograde	-2603 Apr 17 j 04:23	15°♄35'57		morning rise	-2597 Mar 24 j 13:19	26°≈56'27	
opposition	-2603 Jun 26 j 21:46	12°♄13'03	0°03'23		-2597 Apr 18 j 11:01	0°✠	
min. Earth dist.	-2603 Jun 27 j 08:18	12°♄11'04	8.72174 AU	retrograde	-2597 Jul 10 j 10:50	5°✠26'54	
desc. node	-2603 Jul 31 j 07:31	9°♄52'07		opposition	-2597 Sep 16 j 08:16	1°✠55'28	-2°-53'-31
direct	-2603 Sep 03 j 19:39	8°♄53'29		min. Earth dist.	-2597 Sep 16 j 04:23	1°✠56'16	7.97299 AU
evening set	-2603 Dec 12 j 11:04	16°♄08'25			-2597 Oct 11 j 01:43	30°≈	
				direct	-2597 Nov 21 j 08:08	28°≈28'14	
conjunction	-2603 Dec 29 j 07:36	18°♄11'57	0°-12'-10		-2597 Dec 31 j 22:03	0°✠	
minimum elong	-2603 Dec 29 j 07:36	18°♄11'56	0°12'16	evening set	-2596 Mar 03 j 03:32	6°✠40'17	
behind sun begin	-2603 Dec 29 j 02:50	18°♄10'29					
behind sun end	-2603 Dec 29 j 12:21	18°♄13'23		conjunction	-2596 Mar 20 j 21:56	9°✠00'16	-2°-21'-3
max. Earth dist.	-2603 Dec 28 j 19:22	18°♄08'11	10.65396 AU	minimum elong	-2596 Mar 20 j 21:55	9°✠00'16	2°21'05
morning rise	-2602 Jan 15 j 08:17	20°♄16'46		max. Earth dist.	-2596 Mar 21 j 04:12	9°✠02'20	9.93890 AU
retrograde	-2602 Apr 30 j 10:46	27°♄56'06		morning rise	-2596 Apr 07 j 20:23	11°✠21'33	
opposition	-2602 Jul 09 j 21:47	24°♄31'26	0°-34'-9	retrograde	-2596 Jul 24 j 12:19	19°✠55'41	
min. Earth dist.	-2602 Jul 10 j 07:01	24°♄29'39	8.58252 AU	opposition	-2596 Sep 29 j 21:37	16°✠23'57	-2°-56'-52
direct	-2602 Sep 16 j 06:05	21°♄10'48		min. Earth dist.	-2596 Sep 29 j 15:23	16°✠25'15	7.91696 AU
evening set	-2602 Dec 24 j 23:32	28°♄33'59		direct	-2596 Dec 04 j 20:29	12°✠55'36	
	-2601 Jan 05 j 14:09	0°♄		evening set	-2595 Mar 18 j 11:08	21°✠14'12	
conjunction	-2601 Jan 10 j 23:24	0°♄40'19	0°-42'-31				
minimum elong	-2601 Jan 10 j 23:22	0°♄40'19	0°42'37	conjunction	-2595 Apr 05 j 09:16	23°✠35'51	-2°-19'-7
max. Earth dist.	-2601 Jan 10 j 13:58	0°♄37'23	10.51197 AU	minimum elong	-2595 Apr 05 j 09:18	23°✠35'51	2°19'08
morning rise	-2601 Jan 28 j 03:51	2°♄48'09		max. Earth dist.	-2595 Apr 05 j 19:00	23°✠39'04	9.89962 AU
retrograde	-2601 May 14 j 03:39	10°♄39'10		morning rise	-2595 Apr 23 j 10:25	25°✠58'26	
opposition	-2601 Jul 23 j 05:07	7°♄12'43	-1°-11'-20		-2595 May 26 j 14:17	0°♄	
min. Earth dist.	-2601 Jul 23 j 11:47	7°♄11'25	8.43966 AU	retrograde	-2595 Aug 08 j 12:15	4°♄32'26	
				opposition	-2595 Oct 14 j 12:16	1°♄00'55	-2°-48'-48

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 26

Attention, astronomical year style is used: The year -2595 in astronomical counting style is the year 2596 BCE in historical counting style.

min. Earth dist.	-2595 Oct 14 j 03:42	1° $\Upsilon$ 02'42	7.89542 AU	minimum elong	-2589 Jul 04 j 04:18	18° $\Pi$ 50'35	0°13'30
	-2595 Oct 26 j 19:38	30° $\Re$		behind sun begin	-2589 Jul 04 j 00:22	18° $\Pi$ 49'22	
direct	-2595 Dec 19 j 13:40	27° $\Re$ 31'42		behind sun end	-2589 Jul 04 j 08:14	18° $\Pi$ 51'48	
	-2594 Feb 09 j 21:12	0° $\Upsilon$		max. Earth dist.	-2589 Jul 04 j 16:04	18° $\Pi$ 54'16	10.34992 AU
evening set	-2594 Apr 02 j 23:10	5° $\Upsilon$ 54'04		morning rise	-2589 Jul 21 j 22:28	21° $\Pi$ 03'30	
				retrograde	-2589 Oct 30 j 18:39	28° $\Pi$ 39'48	
conjunction	-2594 Apr 21 j 00:36	8° $\Upsilon$ 16'39	-2°-8'-12	opposition	-2588 Jan 05 j 18:10	25° $\Pi$ 16'54	0°36'06
minimum elong	-2594 Apr 21 j 00:39	8° $\Upsilon$ 16'40	2°08'12	min. Earth dist.	-2588 Jan 05 j 09:29	25° $\Pi$ 18'38	8.42006 AU
max. Earth dist.	-2594 Apr 21 j 13:28	8° $\Upsilon$ 20'55	9.89647 AU	direct	-2588 Mar 14 j 23:31	21° $\Pi$ 49'05	
morning rise	-2594 May 09 j 03:43	10° $\Upsilon$ 39'44		evening set	-2588 Jun 29 j 02:52	29° $\Pi$ 40'30	
retrograde	-2594 Aug 23 j 09:19	19° $\Upsilon$ 09'43			-2588 Jul 01 j 19:05	0° $\Theta$	
opposition	-2594 Oct 29 j 01:59	15° $\Upsilon$ 38'52	-2°-29'-45				
min. Earth dist.	-2594 Oct 28 j 15:17	15° $\Upsilon$ 41'06	7.91020 AU	conjunction	-2588 Jul 16 j 20:41	1° $\Theta$ 51'25	0°44'58
direct	-2593 Jan 03 j 09:21	12° $\Upsilon$ 09'06		minimum elong	-2588 Jul 16 j 20:39	1° $\Theta$ 51'24	0°45'03
evening set	-2593 Apr 18 j 12:00	20° $\Upsilon$ 32'11		max. Earth dist.	-2588 Jul 17 j 05:51	1° $\Theta$ 54'15	10.49271 AU
				morning rise	-2588 Aug 03 j 09:40	4° $\Theta$ 00'48	
conjunction	-2593 May 06 j 15:51	22° $\Upsilon$ 54'50	-1°-49'-3	retrograde	-2588 Nov 11 j 11:14	11° $\Theta$ 25'54	
minimum elong	-2593 May 06 j 15:55	22° $\Upsilon$ 54'51	1°49'02	opposition	-2587 Jan 17 j 18:59	8° $\Theta$ 04'40	1°13'14
max. Earth dist.	-2593 May 07 j 07:01	22° $\Upsilon$ 59'49	9.92982 AU	min. Earth dist.	-2587 Jan 17 j 11:50	8° $\Theta$ 06'05	8.56365 AU
morning rise	-2593 May 24 j 19:52	25° $\Upsilon$ 17'30		direct	-2587 Mar 28 j 15:08	4° $\Theta$ 37'57	
	-2593 Jul 03 j 17:51	0° $\Re$		evening set	-2587 Jul 12 j 11:45	12° $\Theta$ 20'02	
retrograde	-2593 Sep 07 j 00:55	3° $\Re$ 40'01					
opposition	-2593 Nov 12 j 12:40	0° $\Re$ 10'17	-2°-1'-12	conjunction	-2587 Jul 30 j 00:24	14° $\Theta$ 27'32	1°13'28
min. Earth dist.	-2593 Nov 12 j 00:45	0° $\Re$ 12'46	7.96036 AU	minimum elong	-2587 Jul 30 j 00:21	14° $\Theta$ 27'31	1°13'32
	-2593 Nov 14 j 13:57	30° $\Re$ $\Upsilon$		max. Earth dist.	-2587 Jul 30 j 07:04	14° $\Theta$ 29'34	10.63458 AU
direct	-2592 Jan 18 j 05:03	26° $\Upsilon$ 40'17		morning rise	-2587 Aug 16 j 07:50	16° $\Theta$ 33'27	
	-2592 Mar 20 j 13:24	0° $\Re$		retrograde	-2587 Nov 23 j 18:48	23° $\Theta$ 48'44	
evening set	-2592 May 02 j 22:08	5° $\Re$ 01'06		opposition	-2586 Jan 30 j 12:40	20° $\Theta$ 29'02	1°45'40
				min. Earth dist.	-2586 Jan 30 j 07:54	20° $\Theta$ 29'57	8.70262 AU
conjunction	-2592 May 21 j 02:58	7° $\Re$ 22'52	-1°-23'-13	direct	-2586 Apr 10 j 22:32	17° $\Theta$ 03'30	
minimum elong	-2592 May 21 j 03:02	7° $\Re$ 22'53	1°23'10	evening set	-2586 Jul 25 j 09:24	24° $\Theta$ 36'42	
max. Earth dist.	-2592 May 21 j 19:08	7° $\Re$ 28'09	9.99730 AU				
morning rise	-2592 Jun 08 j 06:32	9° $\Re$ 44'11		conjunction	-2586 Aug 11 j 16:39	26° $\Theta$ 40'57	1°37'49
	-2592 Jul 24 j 09:10	15° $\Re$		minimum elong	-2586 Aug 11 j 16:36	26° $\Theta$ 40'56	1°37'52
retrograde	-2592 Sep 20 j 09:13	17° $\Re$ 56'35		max. Earth dist.	-2586 Aug 11 j 20:20	26° $\Theta$ 42'03	10.76806 AU
	-2592 Nov 19 j 08:55	15° $\Re$ $\Re$		morning rise	-2586 Aug 28 j 18:35	28° $\Theta$ 43'38	
opposition	-2592 Nov 25 j 18:23	14° $\Re$ 28'20	-1°-25'-32		-2586 Sep 08 j 18:25	0° $\Omega$	
min. Earth dist.	-2592 Nov 25 j 06:19	14° $\Re$ 30'50	8.04257 AU	retrograde	-2586 Dec 05 j 20:30	5° $\Omega$ 50'45	
direct	-2591 Jan 31 j 23:02	10° $\Re$ 58'27		opposition	-2585 Feb 12 j 00:07	2° $\Omega$ 32'24	2°12'26
	-2591 Apr 11 j 21:10	15° $\Re$		min. Earth dist.	-2585 Feb 11 j 22:41	2° $\Omega$ 32'40	8.83039 AU
evening set	-2591 May 18 j 02:06	19° $\Re$ 14'22			-2585 Mar 21 j 17:29	30° $\Re$ $\Theta$	
				direct	-2585 Apr 23 j 20:39	29° $\Theta$ 08'06	
conjunction	-2591 Jun 05 j 06:20	21° $\Re$ 34'21	0°-52'-42		-2585 May 26 j 17:43	0° $\Omega$	
minimum elong	-2591 Jun 05 j 06:23	21° $\Re$ 34'21	0°52'39	evening set	-2585 Aug 06 j 20:40	6° $\Omega$ 33'08	
max. Earth dist.	-2591 Jun 05 j 22:14	21° $\Re$ 39'29	10.09433 AU				
morning rise	-2591 Jun 23 j 08:01	23° $\Re$ 53'28		conjunction	-2585 Aug 23 j 22:34	8° $\Omega$ 34'28	1°57'19
	-2591 Aug 19 j 04:29	0° $\Pi$		minimum elong	-2585 Aug 23 j 22:31	8° $\Omega$ 34'27	1°57'21
retrograde	-2591 Oct 04 j 07:14	1° $\Pi$ 54'10		max. Earth dist.	-2585 Aug 23 j 22:26	8° $\Omega$ 34'25	10.88779 AU
	-2591 Nov 20 j 05:53	30° $\Re$ $\Re$		morning rise	-2585 Sep 09 j 19:32	10° $\Omega$ 34'21	
opposition	-2591 Dec 09 j 17:46	28° $\Re$ 27'38	0°-45'-35		-2585 Oct 22 j 08:03	15° $\Omega$	
min. Earth dist.	-2591 Dec 09 j 06:26	28° $\Re$ 29'57	8.15145 AU	retrograde	-2585 Dec 17 j 15:20	17° $\Omega$ 34'56	
direct	-2590 Feb 15 j 14:02	24° $\Re$ 58'10			-2584 Feb 14 j 20:04	15° $\Re$ $\Omega$	
	-2590 May 06 j 14:50	0° $\Pi$		opposition	-2584 Feb 24 j 06:34	14° $\Omega$ 17'39	2°32'52
evening set	-2590 Jun 01 j 21:12	3° $\Pi$ 07'07		min. Earth dist.	-2584 Feb 24 j 08:01	14° $\Omega$ 17'23	8.94239 AU
				direct	-2584 May 05 j 11:09	10° $\Omega$ 54'35	
conjunction	-2590 Jun 19 j 23:15	5° $\Pi$ 24'32	0°-19'-48		-2584 Jul 19 j 09:03	15° $\Omega$	
minimum elong	-2590 Jun 19 j 23:16	5° $\Pi$ 24'32	0°19'44	evening set	-2584 Aug 17 j 22:24	18° $\Omega$ 12'15	
max. Earth dist.	-2590 Jun 20 j 13:38	5° $\Pi$ 29'07	10.21443 AU				
morning rise	-2590 Jul 07 j 21:45	7° $\Pi$ 40'47		conjunction	-2584 Sep 03 j 19:28	20° $\Omega$ 11'04	2°11'31
retrograde	-2590 Oct 17 j 17:44	15° $\Pi$ 29'10		minimum elong	-2584 Sep 03 j 19:26	20° $\Omega$ 11'03	2°11'34
opposition	-2590 Dec 23 j 09:52	12° $\Pi$ 04'28	0°-4'-10	max. Earth dist.	-2584 Sep 03 j 15:52	20° $\Omega$ 10'00	10.98993 AU
min. Earth dist.	-2590 Dec 22 j 23:54	12° $\Pi$ 06'29	8.27992 AU	morning rise	-2584 Sep 20 j 12:15	22° $\Omega$ 08'37	
asc. node	-2589 Jan 30 j 22:01	9° $\Pi$ 22'17		retrograde	-2584 Dec 28 j 06:01	29° $\Omega$ 04'24	
direct	-2589 Mar 01 j 22:49	8° $\Pi$ 35'43		opposition	-2583 Mar 07 j 08:44	25° $\Omega$ 47'50	2°46'41
evening set	-2589 Jun 16 j 05:53	16° $\Pi$ 36'17		min. Earth dist.	-2583 Mar 07 j 12:11	25° $\Omega$ 47'11	9.03498 AU
				direct	-2583 May 17 j 21:14	22° $\Omega$ 25'52	
conjunction	-2589 Jul 04 j 04:19	18° $\Pi$ 50'35	0°13'25	evening set	-2583 Aug 29 j 16:08	29° $\Omega$ 37'07	

Attention, astronomical year style is used: The year -2583 in astronomical counting style is the year 2584 BCE in historical counting style.

	-2583 Sep 01 j 23:36	0°♈		conjunction	-2577 Nov 20 j 07:56	8°♌15'10	1°22'56
				minimum elong	-2577 Nov 20 j 07:58	8°♌15'11	1°22'54
conjunction	-2583 Sep 15 j 09:16	1°♈33'56	2°20'15	max. Earth dist.	-2577 Nov 19 j 18:16	8°♌11'08	11.03274 AU
minimum elong	-2583 Sep 15 j 09:15	1°♈33'56	2°20'17	morning rise	-2577 Dec 06 j 21:12	10°♌11'53	
max. Earth dist.	-2583 Sep 15 j 03:32	1°♈32'15	11.07122 AU		-2576 Jan 23 j 06:11	15°♌	
morning rise	-2583 Oct 01 j 22:36	3°♈29'40		retrograde	-2576 Mar 17 j 21:56	17°♌18'54	
retrograde	-2582 Jan 08 j 19:20	10°♈22'13			-2576 May 14 j 00:52	15°♌	
opposition	-2582 Mar 19 j 07:34	7°♈06'02	2°53'48	opposition	-2576 May 27 j 22:42	13°♌59'15	1°26'34
min. Earth dist.	-2582 Mar 19 j 12:37	7°♈05'06	9.10510 AU	min. Earth dist.	-2576 May 28 j 10:35	13°♌57'03	8.98962 AU
direct	-2582 May 29 j 23:26	3°♈45'06		direct	-2576 Aug 06 j 05:38	10°♌40'39	
evening set	-2582 Sep 10 j 03:20	10°♈50'58			-2576 Oct 20 j 18:38	15°♌	
				evening set	-2576 Nov 14 j 04:10	17°♌42'10	
conjunction	-2582 Sep 26 j 17:26	12°♈46'20	2°23'27				
minimum elong	-2582 Sep 26 j 17:26	12°♈46'20	2°23'29	conjunction	-2576 Nov 30 j 18:08	19°♌40'08	0°58'05
max. Earth dist.	-2582 Sep 26 j 10:07	12°♈44'12	11.12899 AU	minimum elong	-2576 Nov 30 j 18:10	19°♌40'08	0°58'03
morning rise	-2582 Oct 13 j 04:12	14°♈40'50		max. Earth dist.	-2576 Nov 30 j 04:26	19°♌36'02	10.94099 AU
retrograde	-2581 Jan 20 j 06:37	21°♈31'44		morning rise	-2576 Dec 17 j 10:20	21°♌38'49	
opposition	-2581 Mar 31 j 04:36	18°♈15'39	2°54'16	retrograde	-2575 Mar 30 j 07:49	28°♌53'47	
min. Earth dist.	-2581 Mar 31 j 11:59	18°♈14'18	9.15054 AU	opposition	-2575 Jun 09 j 07:25	25°♌32'48	0°54'20
direct	-2581 Jun 10 j 20:30	14°♈55'34		min. Earth dist.	-2575 Jun 09 j 18:52	25°♌30'39	8.88743 AU
evening set	-2581 Sep 21 j 09:32	21°♈57'14		direct	-2575 Aug 18 j 01:57	22°♌13'53	
				evening set	-2575 Nov 25 j 18:37	29°♌19'58	
conjunction	-2581 Oct 07 j 21:19	23°♈51'41	2°21'13		-2575 Dec 01 j 09:19	0°♏	
minimum elong	-2581 Oct 07 j 21:20	23°♈51'41	2°21'14				
max. Earth dist.	-2581 Oct 07 j 11:32	23°♈48'50	11.16151 AU	conjunction	-2575 Dec 12 j 11:07	1°♏20'02	0°30'23
morning rise	-2581 Oct 24 j 06:44	25°♈45'30		minimum elong	-2575 Dec 12 j 11:08	1°♏20'02	0°30'19
	-2581 Dec 04 j 20:55	0°♏		max. Earth dist.	-2575 Dec 11 j 22:51	1°♏16'20	10.83031 AU
retrograde	-2580 Jan 31 j 17:52	2°♏36'25		morning rise	-2575 Dec 29 j 06:29	3°♏21'03	
	-2580 Apr 01 j 21:29	30°♏		retrograde	-2574 Apr 12 j 01:12	10°♏45'24	
opposition	-2580 Apr 11 j 00:47	29°♏20'08	2°48'16	opposition	-2574 Jun 21 j 21:50	7°♏22'55	0°18'59
min. Earth dist.	-2580 Apr 11 j 10:21	29°♏18'23	9.17004 AU	min. Earth dist.	-2574 Jun 22 j 07:42	7°♏21'04	8.76845 AU
direct	-2580 Jun 21 j 14:47	26°♏00'42		direct	-2574 Aug 30 j 02:53	4°♏03'30	
	-2580 Sep 03 j 14:08	0°♏		evening set	-2574 Dec 07 j 17:06	11°♏15'43	
evening set	-2580 Oct 01 j 12:30	2°♏59'27					
conjunction	-2580 Oct 17 j 22:59	4°♏53'33	2°13'44	conjunction	-2574 Dec 24 j 12:28	13°♏18'13	0°00'43
minimum elong	-2580 Oct 17 j 23:01	4°♏53'34	2°13'43	minimum elong	-2574 Dec 24 j 12:28	13°♏18'13	0°00'39
max. Earth dist.	-2580 Oct 17 j 11:06	4°♏50'05	11.16797 AU	behind sun begin	-2574 Dec 24 j 05:26	13°♏16'05	
morning rise	-2580 Nov 03 j 08:08	6°♏47'18		behind sun end	-2574 Dec 24 j 19:29	13°♏20'20	
retrograde	-2579 Feb 11 j 05:40	13°♏39'48		max. Earth dist.	-2574 Dec 24 j 01:56	13°♏15'01	10.70495 AU
opposition	-2579 Apr 22 j 20:56	10°♏23'00	2°36'06	desc. node	-2573 Jan 02 j 05:10	14°♏21'59	
min. Earth dist.	-2579 Apr 23 j 07:38	10°♏21'03	9.16310 AU	morning rise	-2573 Jan 10 j 11:21	15°♏21'53	
direct	-2579 Jul 03 j 07:02	7°♏04'04		retrograde	-2573 Apr 25 j 05:40	22°♏56'48	
evening set	-2579 Oct 12 j 13:53	14°♏01'17		opposition	-2573 Jul 04 j 19:02	19°♏32'46	0°-18'-14
max. Earth dist.	-2579 Oct 28 j 11:56	15°♏52'01	11.14816 AU	min. Earth dist.	-2573 Jul 05 j 02:53	19°♏31'16	8.63753 AU
				direct	-2573 Sep 11 j 09:23	16°♏12'37	
conjunction	-2579 Oct 29 j 00:11	15°♏55'36	2°01'17	evening set	-2573 Dec 20 j 01:21	23°♏32'25	
minimum elong	-2579 Oct 29 j 00:14	15°♏55'37	2°01'15				
morning rise	-2579 Nov 14 j 09:50	17°♏49'48		conjunction	-2572 Jan 05 j 23:45	25°♏37'36	0°-29'-45
retrograde	-2578 Feb 22 j 23:17	24°♏45'34		minimum elong	-2572 Jan 05 j 23:44	25°♏37'35	0°29'51
opposition	-2578 May 04 j 18:29	21°♏28'01	2°18'06	max. Earth dist.	-2572 Jan 05 j 14:27	25°♏34'43	10.57018 AU
min. Earth dist.	-2578 May 05 j 05:18	21°♏26'02	9.12982 AU	morning rise	-2572 Jan 23 j 02:31	27°♏44'11	
direct	-2578 Jul 14 j 22:53	18°♏09'23			-2572 Feb 11 j 09:53	0°♐	
evening set	-2578 Oct 23 j 15:41	25°♏06'30		retrograde	-2572 May 07 j 19:28	5°♐30'27	
				opposition	-2572 Jul 16 j 23:30	2°♐04'52	0°-55'-49
conjunction	-2578 Nov 09 j 02:33	27°♏01'34	1°44'12	min. Earth dist.	-2572 Jul 17 j 05:44	2°♐03'39	8.50038 AU
minimum elong	-2578 Nov 09 j 02:36	27°♏01'34	1°44'09		-2572 Aug 14 j 22:47	30°♐♏	
max. Earth dist.	-2578 Nov 08 j 13:57	26°♏57'52	11.10256 AU	direct	-2572 Sep 22 j 21:48	28°♏43'47	
morning rise	-2578 Nov 25 j 13:31	28°♏56'46			-2572 Oct 30 j 21:58	0°♐	
	-2578 Dec 04 j 21:04	0°♐		evening set	-2572 Dec 31 j 20:55	6°♐12'29	
retrograde	-2577 Mar 06 j 19:39	5°♐57'21					
opposition	-2577 May 16 j 18:43	2°♐38'51	1°54'44	conjunction	-2571 Jan 17 j 22:35	8°♐20'30	0°-59'-36
min. Earth dist.	-2577 May 17 j 05:56	2°♐36'47	9.07132 AU	minimum elong	-2571 Jan 17 j 22:33	8°♐20'29	0°59'42
	-2577 Jun 27 j 13:09	30°♐♏		max. Earth dist.	-2571 Jan 17 j 15:10	8°♐18'10	10.43209 AU
direct	-2577 Jul 26 j 12:14	29°♏20'22		morning rise	-2571 Feb 04 j 05:15	10°♐30'06	
	-2577 Aug 24 j 00:44	0°♐		retrograde	-2571 May 21 j 17:08	18°♐28'01	
evening set	-2577 Nov 03 j 19:53	6°♐18'53		opposition	-2571 Jul 30 j 11:20	15°♐00'57	-1°-31'-51
				min. Earth dist.	-2571 Jul 30 j 15:48	15°♐00'04	8.36353 AU

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 28

Attention, astronomical year style is used: The year -2571 in astronomical counting style is the year 2572 BCE in historical counting style.

direct	-2571 Oct 05 j 19:48	11°♄38'45		min. Earth dist.	-2565 Oct 22 j 23:48	9°♄46'55	7.91205 AU
evening set	-2570 Jan 14 j 04:38	19°♄17'19		direct	-2565 Dec 28 j 11:43	6°♄15'55	
				evening set	-2564 Apr 11 j 08:50	14°♄38'38	
conjunction	-2570 Jan 31 j 09:50	21°♄28'15	-1°-27'-14	conjunction	-2564 Apr 29 j 11:34	17°♄01'12	-1°-57'-54
minimum elong	-2570 Jan 31 j 09:47	21°♄28'14	1°27'19	minimum elong	-2564 Apr 29 j 11:38	17°♄01'13	1°57'53
max. Earth dist.	-2570 Jan 31 j 05:29	21°♄26'52	10.29749 AU	max. Earth dist.	-2564 Apr 30 j 00:00	17°♄05'18	9.92198 AU
morning rise	-2570 Feb 17 j 20:15	23°♄40'50		morning rise	-2564 May 17 j 15:22	19°♄24'02	
	-2570 Apr 19 j 01:52	0°♄		retrograde	-2564 Aug 31 j 08:35	27°♄49'42	
retrograde	-2570 Jun 04 j 23:39	1°♄50'04		opposition	-2564 Nov 05 j 20:57	24°♄19'49	-2°-14'-4
	-2570 Jul 22 j 20:06	30°♄		min. Earth dist.	-2564 Nov 05 j 11:08	24°♄21'52	7.94364 AU
opposition	-2570 Aug 13 j 06:41	28°♄21'37	-2°-4'-12	direct	-2563 Jan 11 j 08:42	20°♄50'08	
min. Earth dist.	-2570 Aug 13 j 08:39	28°♄21'13	8.23400 AU	evening set	-2563 Apr 26 j 20:18	29°♄11'55	
direct	-2570 Oct 19 j 03:36	24°♄58'13			-2563 May 03 j 01:08	0°♄	
	-2569 Jan 05 j 00:58	0°♄		conjunction	-2563 May 15 j 00:40	1°♄34'02	-1°-34'-42
evening set	-2569 Jan 28 j 00:51	2°♄46'58		minimum elong	-2563 May 15 j 00:44	1°♄34'03	1°34'40
conjunction	-2569 Feb 14 j 09:48	5°♄00'47	-1°-50'-51	max. Earth dist.	-2563 May 15 j 14:17	1°♄38'30	9.97147 AU
minimum elong	-2569 Feb 14 j 09:45	5°♄00'46	1°50'55	morning rise	-2563 Jun 02 j 04:41	3°♄55'58	
max. Earth dist.	-2569 Feb 14 j 09:24	5°♄00'39	10.17357 AU	retrograde	-2563 Sep 14 j 18:55	12°♄12'39	
morning rise	-2569 Mar 03 j 23:50	7°♄16'14		opposition	-2563 Nov 20 j 04:55	8°♄43'54	-1°-41'-9
	-2569 May 24 j 15:09	15°♄		min. Earth dist.	-2563 Nov 19 j 18:13	8°♄46'07	8.00886 AU
retrograde	-2569 Jun 19 j 15:08	15°♄35'33		direct	-2562 Jan 26 j 05:06	5°♄13'59	
	-2569 Jul 15 j 18:44	15°♄		evening set	-2562 May 12 j 02:59	13°♄31'59	
opposition	-2569 Aug 27 j 08:46	12°♄05'55	-2°-30'-32		-2562 May 23 j 13:03	15°♄	
min. Earth dist.	-2569 Aug 27 j 07:45	12°♄06'07	8.11874 AU	conjunction	-2562 May 30 j 07:35	15°♄52'44	-1°-5'-56
direct	-2569 Nov 01 j 19:00	8°♄41'13		minimum elong	-2562 May 30 j 07:39	15°♄52'45	1°05'54
	-2568 Jan 29 j 02:06	15°♄		max. Earth dist.	-2562 May 30 j 21:45	15°♄57'20	10.05268 AU
evening set	-2568 Feb 11 j 09:30	16°♄39'58		morning rise	-2562 Jun 17 j 10:24	18°♄12'51	
conjunction	-2568 Feb 28 j 22:19	18°♄56'27	-2°-8'-39	retrograde	-2562 Sep 28 j 19:54	26°♄18'27	
minimum elong	-2568 Feb 28 j 22:17	18°♄56'26	2°08'42	opposition	-2562 Dec 04 j 06:47	22°♄51'07	-1°-2'-44
max. Earth dist.	-2568 Feb 29 j 01:32	18°♄57'30	10.06711 AU	min. Earth dist.	-2562 Dec 03 j 19:44	22°♄53'23	8.10319 AU
morning rise	-2568 Mar 17 j 15:49	21°♄14'30		direct	-2561 Feb 09 j 22:08	19°♄21'19	
retrograde	-2568 Jul 03 j 12:42	29°♄41'43		evening set	-2561 May 27 j 01:55	27°♄33'12	
opposition	-2568 Sep 09 j 16:18	26°♄11'11	-2°-48'-35	conjunction	-2561 Jun 14 j 05:11	29°♄51'46	0°-33'-50
min. Earth dist.	-2568 Sep 09 j 12:28	26°♄11'58	8.02391 AU	minimum elong	-2561 Jun 14 j 05:13	29°♄51'46	0°33'47
direct	-2568 Nov 14 j 18:37	22°♄45'10		max. Earth dist.	-2561 Jun 14 j 19:03	29°♄56'12	10.15984 AU
	-2567 Feb 18 j 07:04	0°♄			-2561 Jun 15 j 06:53	0°♄	
evening set	-2567 Feb 25 j 05:06	0°♄53'01		morning rise	-2561 Jul 02 j 05:18	2°♄09'18	
conjunction	-2567 Mar 14 j 21:47	3°♄11'52	-2°-19'-2	retrograde	-2561 Oct 12 j 11:02	10°♄02'49	
minimum elong	-2567 Mar 14 j 21:46	3°♄11'52	2°19'04	opposition	-2561 Dec 18 j 01:44	6°♄37'04	0°-21'-41
max. Earth dist.	-2567 Mar 15 j 03:50	3°♄13'52	9.98393 AU	min. Earth dist.	-2561 Dec 17 j 15:03	6°♄39'14	8.22021 AU
morning rise	-2567 Apr 01 j 18:34	5°♄32'06		direct	-2560 Feb 24 j 08:40	3°♄07'42	
retrograde	-2567 Jul 18 j 14:02	14°♄04'23		evening set	-2560 Jun 09 j 14:52	11°♄11'47	
opposition	-2567 Sep 24 j 04:09	10°♄33'21	-2°-56'-32	conjunction	-2560 Jun 27 j 15:11	13°♄27'30	0°00'-34
min. Earth dist.	-2567 Sep 23 j 22:10	10°♄34'36	7.95467 AU	minimum elong	-2560 Jun 27 j 15:11	13°♄27'30	0°00'30
direct	-2567 Nov 29 j 02:27	7°♄06'08		behind sun begin	-2560 Jun 27 j 07:54	13°♄25'14	
evening set	-2566 Mar 12 j 09:23	15°♄21'28		behind sun end	-2560 Jun 27 j 22:28	13°♄29'47	
conjunction	-2566 Mar 30 j 05:51	17°♄42'15	-2°-20'-52	max. Earth dist.	-2560 Jun 28 j 04:04	13°♄31'34	10.28582 AU
minimum elong	-2566 Mar 30 j 05:52	17°♄42'16	2°20'53	asc. node	-2560 Jul 04 j 02:22	14°♄16'33	
max. Earth dist.	-2566 Mar 30 j 14:28	17°♄45'06	9.92917 AU	morning rise	-2560 Jul 15 j 11:15	15°♄41'53	
morning rise	-2566 Apr 17 j 05:39	20°♄04'08		retrograde	-2560 Oct 24 j 17:12	23°♄23'15	
retrograde	-2566 Aug 02 j 15:38	28°♄38'03		opposition	-2560 Dec 30 j 13:09	19°♄59'11	0°19'18
opposition	-2566 Oct 08 j 18:24	25°♄06'59	-2°-53'-18	min. Earth dist.	-2560 Dec 30 j 03:52	20°♄01'02	8.35262 AU
min. Earth dist.	-2566 Oct 08 j 10:42	25°♄08'35	7.91608 AU	direct	-2559 Mar 09 j 11:26	16°♄30'32	
direct	-2566 Dec 13 j 16:52	21°♄38'42		evening set	-2559 Jun 23 j 16:33	24°♄25'49	
evening set	-2565 Mar 27 j 19:51	29°♄59'11		conjunction	-2559 Jul 11 j 12:38	26°♄38'17	0°31'52
	-2565 Mar 27 j 22:21	0°♄		minimum elong	-2559 Jul 11 j 12:36	26°♄38'16	0°31'56
conjunction	-2565 Apr 14 j 19:49	2°♄21'17	-2°-13'-41	max. Earth dist.	-2559 Jul 11 j 23:27	26°♄41'39	10.42310 AU
minimum elong	-2565 Apr 14 j 19:51	2°♄21'18	2°13'42	morning rise	-2559 Jul 29 j 03:50	28°♄49'14	
max. Earth dist.	-2565 Apr 15 j 06:38	2°♄24'52	9.90767 AU		-2559 Aug 07 j 23:43	0°♄	
morning rise	-2565 May 02 j 22:05	4°♄44'04		retrograde	-2559 Nov 06 j 13:23	6°♄19'02	
retrograde	-2565 Aug 17 j 14:39	13°♄15'44		opposition	-2558 Jan 12 j 16:48	2°♄56'38	0°57'57
opposition	-2565 Oct 23 j 08:42	9°♄45'03	-2°-38'-47				



## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 29

Attention, astronomical year style is used: The year -2558 in astronomical counting style is the year 2559 BCE in historical counting style.

min. Earth dist.	-2558 Jan 12 j 09:46	2° $\overline{58}$ '02	8.49291 AU	retrograde	-2552 Jan 15 j 15:18	16° $\overline{17}$ '57'25	
	-2558 Feb 26 j 11:15	30° $\overline{R}$ II		opposition	-2552 Mar 25 j 10:56	13° $\overline{17}$ '41'26	2°54'45
direct	-2558 Mar 23 j 06:06	29° $\overline{II}$ 28'55		min. Earth dist.	-2552 Mar 25 j 16:44	13° $\overline{17}$ '40'22	9.14430 AU
	-2558 Apr 17 j 02:20	0° $\overline{58}$		direct	-2552 Jun 05 j 03:15	10° $\overline{17}$ '21'08	
evening set	-2558 Jul 07 j 06:25	7° $\overline{58}$ '15'02		evening set	-2552 Sep 15 j 22:18	17° $\overline{17}$ '23'57	
conjunction	-2558 Jul 24 j 21:24	9° $\overline{58}$ '24'05	1°01'47	conjunction	-2552 Oct 02 j 10:56	19° $\overline{17}$ '18'35	2°22'46
minimum elong	-2558 Jul 24 j 21:21	9° $\overline{58}$ '24'04	1°01'51	minimum elong	-2552 Oct 02 j 10:56	19° $\overline{17}$ '18'35	2°22'47
max. Earth dist.	-2558 Jul 25 j 04:57	9° $\overline{58}$ '26'24	10.56422 AU	max. Earth dist.	-2552 Oct 02 j 03:05	19° $\overline{17}$ '16'18	11.16360 AU
morning rise	-2558 Aug 11 j 07:18	11° $\overline{58}$ '31'33		morning rise	-2552 Oct 18 j 20:53	21° $\overline{17}$ '12'29	
retrograde	-2558 Nov 18 j 22:42	18° $\overline{58}$ '50'56		retrograde	-2551 Jan 26 j 03:55	28° $\overline{17}$ '02'35	
opposition	-2557 Jan 25 j 13:13	15° $\overline{58}$ '30'07	1°32'31	opposition	-2551 Apr 06 j 06:40	24° $\overline{17}$ '46'43	2°51'29
min. Earth dist.	-2557 Jan 25 j 08:18	15° $\overline{58}$ '31'05	8.63371 AU	min. Earth dist.	-2551 Apr 06 j 13:40	24° $\overline{17}$ '45'26	9.18037 AU
direct	-2557 Apr 05 j 18:02	12° $\overline{58}$ '03'31		direct	-2551 Jun 16 j 23:11	21° $\overline{17}$ '27'23	
evening set	-2557 Jul 20 j 08:38	19° $\overline{58}$ '40'35		evening set	-2551 Sep 27 j 02:04	28° $\overline{17}$ '26'37	
					-2551 Oct 10 j 14:07	0° $\overline{17}$	
conjunction	-2557 Aug 06 j 18:08	21° $\overline{58}$ '46'14	1°27'59	conjunction	-2551 Oct 13 j 13:07	0° $\overline{17}$ '20'39	2°17'31
minimum elong	-2557 Aug 06 j 18:04	21° $\overline{58}$ '46'13	1°28'02	minimum elong	-2551 Oct 13 j 13:08	0° $\overline{17}$ '20'39	2°17'30
max. Earth dist.	-2557 Aug 06 j 22:26	21° $\overline{58}$ '47'33	10.70222 AU	max. Earth dist.	-2551 Oct 13 j 04:02	0° $\overline{17}$ '18'01	11.18636 AU
morning rise	-2557 Aug 23 j 22:35	23° $\overline{58}$ '50'22		morning rise	-2551 Oct 29 j 22:06	2° $\overline{17}$ '14'10	
	-2557 Oct 27 j 22:24	0° $\overline{17}$		retrograde	-2550 Feb 06 j 15:06	9° $\overline{17}$ '05'03	
retrograde	-2557 Dec 01 j 02:14	1° $\overline{17}$ '00'47		opposition	-2550 Apr 18 j 02:05	5° $\overline{17}$ '49'00	2°41'57
	-2556 Jan 04 j 21:22	30° $\overline{R}$ $\overline{58}$		min. Earth dist.	-2550 Apr 18 j 10:48	5° $\overline{17}$ '47'24	9.18949 AU
opposition	-2556 Feb 07 j 02:55	27° $\overline{58}$ '41'24	2°01'45	direct	-2550 Jun 28 j 13:39	2° $\overline{17}$ '30'25	
min. Earth dist.	-2556 Feb 06 j 23:37	27° $\overline{58}$ '42'02	8.76835 AU	evening set	-2550 Oct 08 j 03:45	9° $\overline{17}$ '27'26	
direct	-2556 Apr 17 j 20:26	24° $\overline{58}$ '16'05					
	-2556 Jul 16 j 17:34	0° $\overline{17}$		conjunction	-2550 Oct 24 j 13:57	11° $\overline{17}$ '21'23	2°07'11
evening set	-2556 Jul 31 j 23:45	1° $\overline{17}$ '04'29		minimum elong	-2550 Oct 24 j 14:00	11° $\overline{17}$ '21'23	2°07'10
conjunction	-2556 Aug 18 j 03:56	3° $\overline{17}$ '04'7'03	1°49'35	max. Earth dist.	-2550 Oct 24 j 02:44	11° $\overline{17}$ '18'07	11.18212 AU
minimum elong	-2556 Aug 18 j 03:53	3° $\overline{17}$ '04'7'02	1°49'38	morning rise	-2550 Nov 09 j 23:07	13° $\overline{17}$ '15'05	
max. Earth dist.	-2556 Aug 18 j 05:50	3° $\overline{17}$ '04'7'37	10.83104 AU	retrograde	-2549 Feb 18 j 05:28	20° $\overline{17}$ '08'23	
morning rise	-2556 Sep 04 j 03:07	5° $\overline{17}$ '04'8'07		opposition	-2549 Apr 29 j 22:40	16° $\overline{17}$ '51'50	2°26'27
retrograde	-2556 Dec 11 j 23:40	12° $\overline{17}$ '05'1'11		min. Earth dist.	-2549 Apr 30 j 09:25	16° $\overline{17}$ '49'52	9.17135 AU
opposition	-2555 Feb 18 j 10:53	9° $\overline{17}$ '03'3'01	2°24'55	direct	-2549 Jul 10 j 04:52	13° $\overline{17}$ '33'44	
min. Earth dist.	-2555 Feb 18 j 09:21	9° $\overline{17}$ '03'3'18	8.89113 AU	evening set	-2549 Oct 19 j 04:50	20° $\overline{17}$ '29'54	
direct	-2555 Apr 30 j 13:38	6° $\overline{17}$ '09'0'03					
evening set	-2555 Aug 13 j 04:47	13° $\overline{17}$ '02'9'31		conjunction	-2549 Nov 04 j 15:06	22° $\overline{17}$ '24'18	1°52'06
	-2555 Aug 26 j 01:01	15° $\overline{17}$		minimum elong	-2549 Nov 04 j 15:09	22° $\overline{17}$ '24'19	1°52'04
conjunction	-2555 Aug 30 j 04:04	15° $\overline{17}$ '02'9'21	2°06'04	max. Earth dist.	-2549 Nov 04 j 02:11	22° $\overline{17}$ '20'31	11.15083 AU
minimum elong	-2555 Aug 30 j 04:02	15° $\overline{17}$ '02'9'20	2°06'07	morning rise	-2549 Nov 21 j 01:25	24° $\overline{17}$ '18'45	
max. Earth dist.	-2555 Aug 30 j 04:01	15° $\overline{17}$ '02'9'20	10.94543 AU	retrograde	-2548 Jan 20 j 23:02	0° $\overline{17}$	
morning rise	-2555 Sep 15 j 22:33	17° $\overline{17}$ '02'7'50			-2548 Feb 29 j 22:39	1° $\overline{17}$ '16'05	
retrograde	-2555 Dec 23 j 16:32	24° $\overline{17}$ '02'5'10		opposition	-2548 Apr 11 j 01:59	30° $\overline{R}$ $\overline{17}$	
opposition	-2554 Mar 02 j 14:09	21° $\overline{17}$ '08'0'01	2°41'33	min. Earth dist.	-2548 May 10 j 21:14	27° $\overline{17}$ '58'42	2°05'24
min. Earth dist.	-2554 Mar 02 j 15:18	21° $\overline{17}$ '07'48	8.99714 AU	direct	-2548 May 11 j 08:53	27° $\overline{17}$ '56'34	9.12613 AU
direct	-2554 May 13 j 00:07	17° $\overline{17}$ '04'5'22			-2548 Jul 20 j 19:20	24° $\overline{17}$ '40'49	
evening set	-2554 Aug 25 j 01:22	24° $\overline{17}$ '05'8'53		evening set	-2548 Oct 14 j 18:28	0° $\overline{17}$	
					-2548 Oct 29 j 07:21	1° $\overline{17}$ '37'38	
conjunction	-2554 Sep 10 j 20:12	26° $\overline{17}$ '05'6'26	2°17'08	conjunction	-2548 Nov 14 j 18:41	3° $\overline{17}$ '33'02	1°32'39
minimum elong	-2554 Sep 10 j 20:10	26° $\overline{17}$ '05'6'26	2°17'10	minimum elong	-2548 Nov 14 j 18:44	3° $\overline{17}$ '33'03	1°32'37
max. Earth dist.	-2554 Sep 10 j 17:05	26° $\overline{17}$ '05'5'31	11.04103 AU	max. Earth dist.	-2548 Nov 14 j 05:27	3° $\overline{17}$ '29'08	11.09283 AU
morning rise	-2554 Sep 27 j 10:50	28° $\overline{17}$ '05'2'49		morning rise	-2548 Dec 01 j 06:47	5° $\overline{17}$ '28'44	
	-2554 Oct 07 j 08:16	0° $\overline{17}$		retrograde	-2547 Mar 12 j 22:24	12° $\overline{17}$ '31'43	
retrograde	-2553 Jan 04 j 05:17	5° $\overline{17}$ '46'0'05		opposition	-2547 May 22 j 22:40	9° $\overline{17}$ '13'14	1°39'20
opposition	-2553 Mar 14 j 13:45	2° $\overline{17}$ '29'4'1	2°51'29	min. Earth dist.	-2547 May 23 j 10:24	9° $\overline{17}$ '11'05	9.05457 AU
min. Earth dist.	-2553 Mar 14 j 17:46	2° $\overline{17}$ '28'5'6	9.08250 AU	direct	-2547 Aug 01 j 12:01	5° $\overline{17}$ '55'20	
	-2553 Apr 21 j 13:43	30° $\overline{R}$ $\overline{17}$		evening set	-2547 Nov 09 j 13:12	12° $\overline{17}$ '54'24	
direct	-2553 May 25 j 03:25	29° $\overline{17}$ '08'1'16					
	-2553 Jun 27 j 07:57	0° $\overline{17}$		conjunction	-2547 Nov 26 j 02:15	14° $\overline{17}$ '51'18	1°09'22
evening set	-2553 Sep 05 j 14:45	6° $\overline{17}$ '15'52		minimum elong	-2547 Nov 26 j 02:18	14° $\overline{17}$ '51'19	1°09'20
				max. Earth dist.	-2547 Nov 25 j 12:49	14° $\overline{17}$ '47'19	11.00932 AU
conjunction	-2553 Sep 22 j 05:55	8° $\overline{17}$ '11'4'1	2°22'41		-2547 Nov 27 j 07:34	15° $\overline{17}$	
minimum elong	-2553 Sep 22 j 05:55	8° $\overline{17}$ '11'4'1	2°22'43	morning rise	-2547 Dec 12 j 16:48	16° $\overline{17}$ '48'45	
max. Earth dist.	-2553 Sep 21 j 23:38	8° $\overline{17}$ '09'5'1	11.11458 AU	retrograde	-2546 Mar 25 j 05:29	23° $\overline{17}$ '59'02	
morning rise	-2553 Oct 08 j 17:47	10° $\overline{17}$ '06'3'3		opposition	-2546 Jun 04 j 04:39	20° $\overline{17}$ '39'15	1°08'54

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 30

Attention, astronomical year style is used: The year -2546 in astronomical counting style is the year 2547 BCE in historical counting style.

min. Earth dist.	-2546 Jun 04 j 16:18	20° $\mathbb{M}$ 37'06	8.95872 AU	morning rise	-2540 Feb 25 j 22:54	1° $\approx$ 20'07	
direct	-2546 Aug 13 j 05:17	17° $\mathbb{M}$ 21'04		retrograde	-2540 Jun 12 j 10:24	9° $\approx$ 35'09	
evening set	-2546 Nov 21 j 00:18	24° $\mathbb{M}$ 24'03		opposition	-2540 Aug 20 j 09:03	6° $\approx$ 05'32	-2°-19'-36
				min. Earth dist.	-2540 Aug 20 j 10:12	6° $\approx$ 05'18	8.15813 AU
conjunction	-2546 Dec 07 j 15:27	26° $\mathbb{M}$ 22'53	0°42'53	direct	-2540 Oct 25 j 23:10	2° $\approx$ 40'53	
minimum elong	-2546 Dec 07 j 15:29	26° $\mathbb{M}$ 22'53	0°42'50	evening set	-2539 Feb 04 j 06:14	10° $\approx$ 35'28	
max. Earth dist.	-2546 Dec 07 j 01:17	26° $\mathbb{M}$ 18'38	10.90329 AU				
morning rise	-2546 Dec 24 j 09:10	28° $\mathbb{M}$ 22'33		conjunction	-2539 Feb 21 j 17:08	12° $\approx$ 50'52	-2°-1'-27
	-2545 Jan 07 j 13:34	0° $\mathbb{A}$		minimum elong	-2539 Feb 21 j 17:05	12° $\approx$ 50'51	2°01'31
retrograde	-2545 Apr 06 j 18:32	5° $\mathbb{A}$ 41'39		max. Earth dist.	-2539 Feb 21 j 16:16	12° $\approx$ 50'35	10.09951 AU
opposition	-2545 Jun 16 j 16:11	2° $\mathbb{A}$ 20'22	0°34'55		-2539 Mar 10 j 08:20	15° $\approx$	
min. Earth dist.	-2545 Jun 17 j 03:52	2° $\mathbb{A}$ 18'11	8.84260 AU	morning rise	-2539 Mar 11 j 09:11	15° $\approx$ 07'56	
	-2545 Jul 21 j 08:22	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-2539 Jun 27 j 04:50	23° $\approx$ 32'20	
direct	-2545 Aug 25 j 02:37	29° $\mathbb{M}$ 01'37		opposition	-2539 Sep 03 j 14:20	20° $\approx$ 01'36	-2°-41'-41
	-2545 Sep 28 j 02:47	0° $\mathbb{A}$		min. Earth dist.	-2539 Sep 03 j 13:09	20° $\approx$ 01'51	8.04835 AU
evening set	-2545 Dec 02 j 18:38	6° $\mathbb{A}$ 10'09		direct	-2539 Nov 08 j 19:58	16° $\approx$ 35'34	
				evening set	-2538 Feb 18 j 20:56	24° $\approx$ 40'04	
conjunction	-2545 Dec 19 j 12:25	8° $\mathbb{A}$ 11'17	0°14'03				
minimum elong	-2545 Dec 19 j 12:25	8° $\mathbb{A}$ 11'17	0°14'00	conjunction	-2538 Mar 08 j 11:46	26° $\approx$ 58'05	-2°-15'-23
behind sun begin	-2545 Dec 19 j 08:45	8° $\mathbb{A}$ 10'11		minimum elong	-2538 Mar 08 j 11:44	26° $\approx$ 58'05	2°15'26
behind sun end	-2545 Dec 19 j 16:06	8° $\mathbb{A}$ 12'23		max. Earth dist.	-2538 Mar 08 j 14:50	26° $\approx$ 59'06	10.00109 AU
max. Earth dist.	-2545 Dec 18 j 22:40	8° $\mathbb{A}$ 07'07	10.77932 AU	morning rise	-2538 Mar 26 j 07:17	29° $\approx$ 17'37	
morning rise	-2544 Jan 05 j 09:43	10° $\mathbb{A}$ 13'31			-2538 Mar 31 j 19:58	0° $\mathbb{H}$	
retrograde	-2544 Apr 18 j 16:47	17° $\mathbb{A}$ 42'46		retrograde	-2538 Jul 12 j 03:56	7° $\mathbb{H}$ 48'47	
desc. node	-2544 Jun 12 j 18:23	15° $\mathbb{A}$ 29'27		opposition	-2538 Sep 18 j 00:46	4° $\mathbb{H}$ 17'19	-2°-54'-25
opposition	-2544 Jun 28 j 09:51	14° $\mathbb{A}$ 19'48	0°-1'-31	min. Earth dist.	-2538 Sep 17 j 20:49	4° $\mathbb{H}$ 18'08	7.96416 AU
min. Earth dist.	-2544 Jun 28 j 20:47	14° $\mathbb{A}$ 17'43	8.71129 AU	direct	-2538 Nov 23 j 01:36	0° $\mathbb{H}$ 49'59	
direct	-2544 Sep 05 j 07:08	11° $\mathbb{A}$ 00'11		evening set	-2537 Mar 05 j 21:42	9° $\mathbb{H}$ 02'57	
evening set	-2544 Dec 13 j 21:48	18° $\mathbb{A}$ 15'47					
conjunction	-2544 Dec 30 j 18:43	20° $\mathbb{A}$ 19'34	0°-16'-10	conjunction	-2537 Mar 23 j 16:33	11° $\mathbb{H}$ 23'11	-2°-21'-12
minimum elong	-2544 Dec 30 j 18:42	20° $\mathbb{A}$ 19'33	0°16'16	minimum elong	-2537 Mar 23 j 16:33	11° $\mathbb{H}$ 23'11	2°21'13
max. Earth dist.	-2544 Dec 30 j 07:02	20° $\mathbb{A}$ 15'58	10.64264 AU	max. Earth dist.	-2537 Mar 23 j 23:39	11° $\mathbb{H}$ 25'32	9.93145 AU
morning rise	-2543 Jan 16 j 19:42	22° $\mathbb{A}$ 24'39		morning rise	-2537 Apr 10 j 15:15	13° $\mathbb{H}$ 44'39	
	-2543 Apr 21 j 23:39	0° $\mathbb{B}$		retrograde	-2537 Jul 27 j 05:01	22° $\mathbb{H}$ 19'10	
retrograde	-2543 May 02 j 00:37	0° $\mathbb{B}$ 05'04		opposition	-2537 Oct 02 j 14:29	18° $\mathbb{H}$ 47'25	-2°-56'-19
	-2543 May 12 j 02:24	30° $\mathbb{R}$ $\mathbb{A}$		min. Earth dist.	-2537 Oct 02 j 07:42	18° $\mathbb{H}$ 48'50	7.91108 AU
opposition	-2543 Jul 11 j 10:27	26° $\mathbb{A}$ 40'18	0°-39'-4	direct	-2537 Dec 07 j 13:38	15° $\mathbb{H}$ 18'59	
min. Earth dist.	-2543 Jul 11 j 19:24	26° $\mathbb{A}$ 38'35	8.57046 AU	evening set	-2536 Mar 20 j 06:05	23° $\mathbb{H}$ 38'13	
direct	-2543 Sep 17 j 17:17	23° $\mathbb{A}$ 19'39					
	-2543 Dec 20 j 11:08	0° $\mathbb{B}$		conjunction	-2536 Apr 07 j 04:42	26° $\mathbb{H}$ 00'04	-2°-18'-5
evening set	-2543 Dec 26 j 11:30	0° $\mathbb{B}$ 43'43		minimum elong	-2536 Apr 07 j 04:44	26° $\mathbb{H}$ 00'04	2°18'06
				max. Earth dist.	-2536 Apr 07 j 15:22	26° $\mathbb{H}$ 03'36	9.89538 AU
conjunction	-2542 Jan 12 j 11:43	2° $\mathbb{B}$ 50'20	0°-46'-24	morning rise	-2536 Apr 25 j 06:01	28° $\mathbb{H}$ 22'46	
minimum elong	-2542 Jan 12 j 11:41	2° $\mathbb{B}$ 50'19	0°46'30		-2536 May 07 j 23:20	0° $\mathbb{Y}$	
max. Earth dist.	-2542 Jan 12 j 02:43	2° $\mathbb{B}$ 47'31	10.49922 AU	retrograde	-2536 Aug 10 j 05:48	6° $\mathbb{Y}$ 56'43	
morning rise	-2542 Jan 29 j 16:23	4° $\mathbb{B}$ 58'25		opposition	-2536 Oct 16 j 05:13	3° $\mathbb{Y}$ 25'12	-2°-46'-49
retrograde	-2542 May 15 j 18:11	12° $\mathbb{B}$ 50'39		min. Earth dist.	-2536 Oct 15 j 19:58	3° $\mathbb{Y}$ 27'08	7.89285 AU
opposition	-2542 Jul 24 j 18:30	9° $\mathbb{B}$ 24'06	-1°-15'-59		-2536 Dec 12 j 19:20	30° $\mathbb{R}$ $\mathbb{H}$	
min. Earth dist.	-2542 Jul 25 j 00:36	9° $\mathbb{B}$ 22'54	8.42653 AU	direct	-2536 Dec 21 j 06:08	29° $\mathbb{H}$ 55'53	
direct	-2542 Sep 30 j 11:04	6° $\mathbb{B}$ 02'14			-2536 Dec 29 j 17:14	0° $\mathbb{Y}$	
evening set	-2541 Jan 08 j 13:06	13° $\mathbb{B}$ 35'54		evening set	-2535 Apr 04 j 18:31	8° $\mathbb{Y}$ 18'36	
conjunction	-2541 Jan 25 j 16:43	15° $\mathbb{B}$ 45'29	-1°-15'-11	conjunction	-2535 Apr 22 j 20:19	10° $\mathbb{Y}$ 41'17	-2°-6'-3
minimum elong	-2541 Jan 25 j 16:40	15° $\mathbb{B}$ 45'28	1°15'17	minimum elong	-2535 Apr 22 j 20:22	10° $\mathbb{Y}$ 41'18	2°06'03
max. Earth dist.	-2541 Jan 25 j 10:11	15° $\mathbb{B}$ 43'25	10.35598 AU	max. Earth dist.	-2535 Apr 23 j 09:55	10° $\mathbb{Y}$ 45'48	9.89564 AU
morning rise	-2541 Feb 12 j 01:14	17° $\mathbb{B}$ 56'40		morning rise	-2535 May 10 j 23:31	13° $\mathbb{Y}$ 04'25	
retrograde	-2541 May 29 j 21:59	26° $\mathbb{B}$ 00'42		retrograde	-2535 Aug 25 j 03:44	21° $\mathbb{Y}$ 03'57	
opposition	-2541 Aug 07 j 10:07	22° $\mathbb{B}$ 32'30	-1°-50'-15	opposition	-2535 Oct 30 j 18:56	18° $\mathbb{Y}$ 03'07	-2°-26'-26
min. Earth dist.	-2541 Aug 07 j 13:39	22° $\mathbb{B}$ 31'48	8.28664 AU	min. Earth dist.	-2535 Oct 30 j 07:50	18° $\mathbb{Y}$ 05'26	7.91102 AU
direct	-2541 Oct 13 j 12:35	19° $\mathbb{B}$ 09'17		direct	-2534 Jan 05 j 01:58	14° $\mathbb{Y}$ 33'15	
evening set	-2540 Jan 22 j 03:20	26° $\mathbb{B}$ 53'19		evening set	-2534 Apr 20 j 07:13	22° $\mathbb{Y}$ 56'20	
conjunction	-2540 Feb 08 j 10:30	29° $\mathbb{B}$ 05'52	-1°-40'-49	conjunction	-2534 May 08 j 11:15	25° $\mathbb{Y}$ 18'59	-1°-45'-58
minimum elong	-2540 Feb 08 j 10:27	29° $\mathbb{B}$ 05'51	1°40'54	minimum elong	-2534 May 08 j 11:19	25° $\mathbb{Y}$ 19'01	1°45'56
max. Earth dist.	-2540 Feb 08 j 06:32	29° $\mathbb{B}$ 04'35	10.22026 AU	max. Earth dist.	-2534 May 09 j 02:44	25° $\mathbb{Y}$ 24'06	9.93239 AU
	-2540 Feb 15 j 11:03	0° $\approx$		morning rise	-2534 May 26 j 15:17	27° $\mathbb{Y}$ 41'38	
					-2534 Jun 14 j 02:10	0° $\mathbb{B}$	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 31

Attention, astronomical year style is used: The year -2534 in astronomical counting style is the year 2535 BCE in historical counting style.

retrograde	-2534 Sep 08 j 19:04	6°♄03'22		direct	-2528 Mar 30 j 06:13	6°♄50'59	
opposition	-2534 Nov 14 j 05:21	2°♄33'40	-1°-56'-50	evening set	-2528 Jul 14 j 01:48	14°♄32'08	
min. Earth dist.	-2534 Nov 13 j 17:34	2°♄36'08	7.96447 AU				
	-2534 Dec 18 j 19:29	30°♄		conjunction	-2528 Jul 31 j 13:54	16°♄39'16	1°16'58
direct	-2533 Jan 19 j 22:33	29°♄03'35		minimum elong	-2528 Jul 31 j 13:51	16°♄39'15	1°17'02
	-2533 Feb 21 j 00:33	0°♄		max. Earth dist.	-2528 Jul 31 j 21:14	16°♄41'30	10.64925 AU
evening set	-2533 May 05 j 16:58	7°♄24'08		morning rise	-2528 Aug 17 j 20:38	18°♄44'49	
				retrograde	-2528 Nov 25 j 07:23	25°♄59'07	
conjunction	-2533 May 23 j 21:49	9°♄45'47	-1°-19'-23	opposition	-2527 Feb 01 j 01:29	22°♄39'35	1°49'35
minimum elong	-2533 May 23 j 21:52	9°♄45'48	1°19'21	min. Earth dist.	-2527 Jan 31 j 21:02	22°♄40'27	8.71791 AU
max. Earth dist.	-2533 May 24 j 13:42	9°♄50'58	10.00303 AU	direct	-2527 Apr 12 j 11:39	19°♄14'11	
morning rise	-2533 Jun 11 j 01:20	12°♄06'59		evening set	-2527 Jul 26 j 22:16	26°♄46'21	
	-2533 Jul 04 j 14:59	15°♄					
retrograde	-2533 Sep 23 j 01:32	20°♄18'22		conjunction	-2527 Aug 13 j 04:51	28°♄50'14	1°40'41
opposition	-2533 Nov 28 j 10:33	16°♄50'12	-1°-20'-27	minimum elong	-2527 Aug 13 j 04:47	28°♄50'13	1°40'44
min. Earth dist.	-2533 Nov 27 j 22:59	16°♄52'36	8.04964 AU	max. Earth dist.	-2527 Aug 13 j 08:22	28°♄51'17	10.78373 AU
	-2533 Dec 21 j 20:40	15°♄			-2527 Aug 22 j 21:12	0°♄	
direct	-2532 Feb 03 j 17:26	13°♄20'15		morning rise	-2527 Aug 30 j 06:14	0°♄52'34	
	-2532 Mar 18 j 05:50	15°♄		retrograde	-2527 Dec 07 j 06:34	7°♄58'42	
evening set	-2532 May 19 j 20:19	21°♄35'41		opposition	-2526 Feb 13 j 12:08	4°♄40'29	2°15'29
				min. Earth dist.	-2526 Feb 13 j 11:01	4°♄40'42	8.84640 AU
conjunction	-2532 Jun 07 j 00:22	23°♄55'27	0°-48'-26	direct	-2526 Apr 25 j 09:23	1°♄16'20	
minimum elong	-2532 Jun 07 j 00:24	23°♄55'27	0°48'23	evening set	-2526 Aug 08 j 08:16	8°♄40'19	
max. Earth dist.	-2532 Jun 07 j 15:32	24°♄00'20	10.10275 AU				
morning rise	-2532 Jun 25 j 01:54	26°♄14'22		conjunction	-2526 Aug 25 j 09:33	10°♄41'17	1°59'28
	-2532 Jul 26 j 22:03	0°♄		minimum elong	-2526 Aug 25 j 09:30	10°♄41'16	1°59'30
retrograde	-2532 Oct 05 j 21:20	4°♄13'55		max. Earth dist.	-2526 Aug 25 j 08:50	10°♄41'04	10.90367 AU
opposition	-2532 Dec 11 j 09:21	0°♄47'31	0°-40'-7	morning rise	-2526 Sep 11 j 06:08	12°♄40'51	
min. Earth dist.	-2532 Dec 10 j 22:21	0°♄49'46	8.16096 AU		-2526 Oct 01 j 23:58	15°♄	
	-2532 Dec 21 j 03:32	30°♄		retrograde	-2526 Dec 19 j 00:29	19°♄40'35	
direct	-2531 Feb 17 j 07:47	27°♄18'02		opposition	-2525 Feb 25 j 17:45	16°♄23'25	2°35'01
	-2531 Apr 15 j 04:04	0°♄		min. Earth dist.	-2525 Feb 25 j 18:54	16°♄23'12	8.95802 AU
evening set	-2531 Jun 03 j 14:27	5°♄26'17			-2525 Mar 16 j 18:53	15°♄	
				direct	-2525 May 08 j 00:47	13°♄00'30	
conjunction	-2531 Jun 21 j 16:09	7°♄43'26	0°-15'-22		-2525 Jun 27 j 21:38	15°♄	
minimum elong	-2531 Jun 21 j 16:10	7°♄43'26	0°15'19	evening set	-2525 Aug 20 j 08:53	20°♄17'11	
behind sun begin	-2531 Jun 21 j 14:19	7°♄42'51					
behind sun end	-2531 Jun 21 j 18:01	7°♄44'01		conjunction	-2525 Sep 06 j 05:31	22°♄15'41	2°12'55
max. Earth dist.	-2531 Jun 22 j 05:54	7°♄47'48	10.22501 AU	minimum elong	-2525 Sep 06 j 05:29	22°♄15'41	2°12'58
morning rise	-2531 Jul 09 j 14:21	9°♄59'24		max. Earth dist.	-2525 Sep 06 j 02:10	22°♄14'42	11.00494 AU
retrograde	-2531 Oct 19 j 07:41	17°♄46'40		morning rise	-2525 Sep 22 j 21:51	24°♄12'57	
asc. node	-2531 Dec 13 j 05:56	15°♄18'25			-2525 Nov 23 j 18:28	0°♄	
opposition	-2531 Dec 25 j 00:44	14°♄22'04	0°01'17	retrograde	-2525 Dec 30 j 16:15	1°♄08'01	
min. Earth dist.	-2531 Dec 24 j 14:29	14°♄24'08	8.29136 AU		-2524 Feb 06 j 11:06	30°♄	
direct	-2530 Mar 03 j 15:17	10°♄53'21		opposition	-2524 Mar 08 j 19:17	27°♄51'34	2°47'53
evening set	-2530 Jun 17 j 22:01	18°♄53'06		min. Earth dist.	-2524 Mar 08 j 22:18	27°♄51'00	9.04925 AU
				direct	-2524 May 19 j 08:04	24°♄29'50	
conjunction	-2530 Jul 05 j 20:04	21°♄07'06	0°17'45		-2524 Aug 16 j 02:46	0°♄	
minimum elong	-2530 Jul 05 j 20:04	21°♄07'06	0°17'49	evening set	-2524 Aug 31 j 01:37	1°♄40'08	
max. Earth dist.	-2530 Jul 06 j 07:52	21°♄10'48	10.36219 AU				
morning rise	-2530 Jul 23 j 13:46	23°♄19'42		conjunction	-2524 Sep 16 j 18:27	3°♄36'43	2°20'53
	-2530 Sep 30 j 11:39	0°♄		minimum elong	-2524 Sep 16 j 18:26	3°♄36'43	2°20'55
retrograde	-2530 Nov 01 j 08:11	0°♄54'55		max. Earth dist.	-2524 Sep 16 j 13:12	3°♄35'10	11.08457 AU
	-2530 Dec 03 j 14:24	30°♄		morning rise	-2524 Oct 03 j 07:21	5°♄32'13	
opposition	-2529 Jan 07 j 08:14	27°♄32'08	0°41'17	retrograde	-2523 Jan 10 j 04:21	12°♄24'12	
min. Earth dist.	-2529 Jan 06 j 22:56	27°♄33'59	8.43297 AU	opposition	-2523 Mar 20 j 17:45	9°♄08'10	2°54'04
direct	-2529 Mar 17 j 15:00	24°♄04'24		min. Earth dist.	-2523 Mar 20 j 23:08	9°♄07'10	9.11745 AU
	-2529 Jun 15 j 11:24	0°♄		direct	-2523 May 31 j 09:16	5°♄47'25	
evening set	-2529 Jul 01 j 17:56	1°♄54'56		evening set	-2523 Sep 11 j 11:59	12°♄52'29	
conjunction	-2529 Jul 19 j 11:20	4°♄05'31	0°48'59	conjunction	-2523 Sep 28 j 01:46	14°♄47'40	2°23'19
minimum elong	-2529 Jul 19 j 11:18	4°♄05'31	0°49'03	minimum elong	-2523 Sep 28 j 01:46	14°♄47'40	2°23'21
max. Earth dist.	-2529 Jul 19 j 21:15	4°♄08'35	10.50625 AU	max. Earth dist.	-2523 Sep 27 j 17:54	14°♄45'22	11.14019 AU
morning rise	-2529 Aug 05 j 23:42	6°♄14'34		morning rise	-2523 Oct 14 j 12:24	16°♄41'59	
retrograde	-2529 Nov 13 j 23:27	13°♄38'39		retrograde	-2522 Jan 21 j 15:39	23°♄32'30	
opposition	-2528 Jan 20 j 08:23	10°♄17'35	1°17'52	opposition	-2522 Apr 01 j 14:20	20°♄16'33	2°53'38
min. Earth dist.	-2528 Jan 20 j 01:01	10°♄19'01	8.57776 AU	min. Earth dist.	-2522 Apr 01 j 22:29	20°♄15'03	9.16054 AU

Attention, astronomical year style is used: The year -2522 in astronomical counting style is the year 2523 BCE in historical counting style.

direct	-2522 Jun 12 j 06:19	16° $\mathring{\text{M}}$ 56'38		opposition	-2516 Jun 10 j 16:57	27° $\mathring{\text{M}}$ 33'44	0°49'54
evening set	-2522 Sep 22 j 17:35	23° $\mathring{\text{M}}$ 57'39		min. Earth dist.	-2516 Jun 11 j 04:02	27° $\mathring{\text{M}}$ 31'40	8.87929 AU
				direct	-2516 Aug 19 j 10:47	24° $\mathring{\text{M}}$ 14'46	
conjunction	-2522 Oct 09 j 05:09	25° $\mathring{\text{M}}$ 51'58	2°20'22		-2516 Nov 15 j 10:12	0° $\mathring{\text{A}}$	
minimum elong	-2522 Oct 09 j 05:10	25° $\mathring{\text{M}}$ 51'58	2°20'22	evening set	-2516 Nov 27 j 02:36	1° $\mathring{\text{A}}$ 21'11	
max. Earth dist.	-2522 Oct 08 j 18:32	25° $\mathring{\text{M}}$ 48'53	11.17018 AU				
morning rise	-2522 Oct 25 j 14:36	27° $\mathring{\text{M}}$ 45'42		conjunction	-2516 Dec 13 j 19:25	3° $\mathring{\text{A}}$ 21'26	0°26'39
	-2522 Nov 15 j 01:42	0° $\mathring{\text{A}}$		minimum elong	-2516 Dec 13 j 19:26	3° $\mathring{\text{A}}$ 21'27	0°26'36
retrograde	-2521 Feb 02 j 01:08	4° $\mathring{\text{A}}$ 36'22		max. Earth dist.	-2516 Dec 13 j 07:14	3° $\mathring{\text{A}}$ 17'46	10.82086 AU
opposition	-2521 Apr 13 j 10:04	1° $\mathring{\text{A}}$ 20'09	2°46'48	morning rise	-2516 Dec 30 j 15:03	5° $\mathring{\text{A}}$ 22'39	
min. Earth dist.	-2521 Apr 13 j 19:48	1° $\mathring{\text{A}}$ 18'22	9.17726 AU	retrograde	-2515 Apr 13 j 13:01	12° $\mathring{\text{A}}$ 47'45	
	-2521 May 02 j 04:51	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		opposition	-2515 Jun 23 j 07:42	9° $\mathring{\text{A}}$ 25'06	0°14'20
direct	-2521 Jun 23 j 23:45	28° $\mathring{\text{M}}$ 00'53		min. Earth dist.	-2515 Jun 23 j 17:23	9° $\mathring{\text{A}}$ 23'17	8.75771 AU
	-2521 Aug 13 j 21:54	0° $\mathring{\text{A}}$		direct	-2515 Aug 31 j 11:54	6° $\mathring{\text{A}}$ 05'34	
evening set	-2521 Oct 03 j 20:00	4° $\mathring{\text{A}}$ 59'08		desc. node	-2515 Nov 16 j 21:48	10° $\mathring{\text{A}}$ 46'06	
				evening set	-2515 Dec 09 j 01:52	13° $\mathring{\text{A}}$ 18'20	
conjunction	-2521 Oct 20 j 06:31	6° $\mathring{\text{A}}$ 53'10	2°12'13				
minimum elong	-2521 Oct 20 j 06:33	6° $\mathring{\text{A}}$ 53'11	2°12'12	conjunction	-2515 Dec 25 j 21:24	15° $\mathring{\text{A}}$ 21'03	0°-3'-10
max. Earth dist.	-2521 Oct 19 j 18:51	6° $\mathring{\text{A}}$ 49'46	11.17374 AU	minimum elong	-2515 Dec 25 j 21:25	15° $\mathring{\text{A}}$ 21'03	0°03'16
morning rise	-2521 Nov 05 j 15:38	8° $\mathring{\text{A}}$ 46'52		behind sun begin	-2515 Dec 25 j 14:25	15° $\mathring{\text{A}}$ 18'56	
retrograde	-2520 Feb 13 j 15:17	15° $\mathring{\text{A}}$ 39'19		behind sun end	-2515 Dec 26 j 04:26	15° $\mathring{\text{A}}$ 23'10	
opposition	-2520 Apr 24 j 06:06	12° $\mathring{\text{A}}$ 22'34	2°33'51	max. Earth dist.	-2515 Dec 25 j 10:02	15° $\mathring{\text{A}}$ 17'34	10.69307 AU
min. Earth dist.	-2520 Apr 24 j 16:21	12° $\mathring{\text{A}}$ 20'41	9.16724 AU	morning rise	-2514 Jan 11 j 20:43	17° $\mathring{\text{A}}$ 24'58	
direct	-2520 Jul 04 j 16:53	9° $\mathring{\text{A}}$ 03'46		retrograde	-2514 Apr 26 j 17:12	25° $\mathring{\text{A}}$ 00'46	
evening set	-2520 Oct 13 j 21:02	16° $\mathring{\text{A}}$ 00'35		opposition	-2514 Jul 06 j 05:28	21° $\mathring{\text{A}}$ 36'34	0°-22'-56
				min. Earth dist.	-2514 Jul 06 j 13:50	21° $\mathring{\text{A}}$ 34'58	8.62457 AU
conjunction	-2520 Oct 30 j 07:27	17° $\mathring{\text{A}}$ 54'54	1°59'08	direct	-2514 Sep 12 j 17:15	18° $\mathring{\text{A}}$ 16'15	
minimum elong	-2520 Oct 30 j 07:30	17° $\mathring{\text{A}}$ 54'55	1°59'06	evening set	-2514 Dec 21 j 10:55	25° $\mathring{\text{A}}$ 36'50	
max. Earth dist.	-2520 Oct 29 j 19:24	17° $\mathring{\text{A}}$ 51'23	11.15078 AU				
morning rise	-2520 Nov 15 j 17:09	19° $\mathring{\text{A}}$ 49'07		conjunction	-2513 Jan 07 j 09:32	27° $\mathring{\text{A}}$ 42'15	0°-33'-31
retrograde	-2519 Feb 24 j 07:55	26° $\mathring{\text{A}}$ 44'57		minimum elong	-2513 Jan 07 j 09:30	27° $\mathring{\text{A}}$ 42'14	0°33'36
opposition	-2519 May 06 j 03:37	23° $\mathring{\text{A}}$ 27'24	2°15'09	max. Earth dist.	-2513 Jan 06 j 23:28	27° $\mathring{\text{A}}$ 39'07	10.55636 AU
min. Earth dist.	-2519 May 06 j 14:40	23° $\mathring{\text{A}}$ 25'23	9.13079 AU	morning rise	-2513 Jan 24 j 12:42	29° $\mathring{\text{A}}$ 49'06	
direct	-2519 Jul 16 j 06:05	20° $\mathring{\text{A}}$ 08'54			-2513 Jan 26 j 00:36	0° $\mathring{\text{B}}$	
evening set	-2519 Oct 24 j 22:51	27° $\mathring{\text{A}}$ 05'46		retrograde	-2513 May 10 j 06:04	7° $\mathring{\text{B}}$ 36'26	
				opposition	-2513 Jul 19 j 10:39	4° $\mathring{\text{B}}$ 10'39	-1°00'-22
conjunction	-2519 Nov 10 j 09:46	29° $\mathring{\text{A}}$ 00'52	1°41'31	min. Earth dist.	-2513 Jul 19 j 17:35	4° $\mathring{\text{B}}$ 09'18	8.48580 AU
minimum elong	-2519 Nov 10 j 09:49	29° $\mathring{\text{A}}$ 00'52	1°41'28	direct	-2513 Sep 25 j 08:17	0° $\mathring{\text{B}}$ 49'22	
max. Earth dist.	-2519 Nov 09 j 20:17	28° $\mathring{\text{A}}$ 56'54	11.10202 AU	evening set	-2512 Jan 03 j 07:28	8° $\mathring{\text{B}}$ 19'02	
	-2519 Nov 18 j 19:29	0° $\mathring{\text{M}}$					
morning rise	-2519 Nov 26 j 21:01	0° $\mathring{\text{M}}$ 56'08		conjunction	-2512 Jan 20 j 09:30	10° $\mathring{\text{B}}$ 27'21	-1°-3'-8
retrograde	-2518 Mar 08 j 04:16	7° $\mathring{\text{M}}$ 56'58		minimum elong	-2512 Jan 20 j 09:27	10° $\mathring{\text{B}}$ 27'20	1°03'13
opposition	-2518 May 18 j 03:48	4° $\mathring{\text{M}}$ 38'25	1°51'10	max. Earth dist.	-2512 Jan 20 j 02:17	10° $\mathring{\text{B}}$ 25'05	10.41693 AU
min. Earth dist.	-2518 May 18 j 15:55	4° $\mathring{\text{M}}$ 36'12	9.06913 AU	morning rise	-2512 Feb 06 j 16:30	12° $\mathring{\text{B}}$ 37'15	
direct	-2518 Jul 27 j 20:57	1° $\mathring{\text{M}}$ 19'57		retrograde	-2512 May 23 j 05:02	20° $\mathring{\text{B}}$ 36'21	
evening set	-2518 Nov 05 j 03:07	8° $\mathring{\text{M}}$ 18'27		opposition	-2512 Jul 31 j 23:13	17° $\mathring{\text{B}}$ 09'04	-1°-36'-1
				min. Earth dist.	-2512 Aug 01 j 03:47	17° $\mathring{\text{B}}$ 08'10	8.34803 AU
conjunction	-2518 Nov 21 j 15:18	10° $\mathring{\text{M}}$ 14'49	1°19'48	direct	-2512 Oct 07 j 07:39	13° $\mathring{\text{B}}$ 46'40	
minimum elong	-2518 Nov 21 j 15:21	10° $\mathring{\text{M}}$ 14'50	1°19'46	evening set	-2511 Jan 15 j 16:26	21° $\mathring{\text{B}}$ 26'20	
max. Earth dist.	-2518 Nov 21 j 01:00	10° $\mathring{\text{M}}$ 10'36	11.02911 AU				
morning rise	-2518 Dec 08 j 04:55	12° $\mathring{\text{M}}$ 11'39		conjunction	-2511 Feb 01 j 22:04	23° $\mathring{\text{B}}$ 37'36	-1°-30'-19
	-2517 Jan 02 j 18:33	15° $\mathring{\text{M}}$		minimum elong	-2511 Feb 01 j 22:01	23° $\mathring{\text{B}}$ 37'35	1°30'24
retrograde	-2517 Mar 20 j 06:52	19° $\mathring{\text{M}}$ 19'05		max. Earth dist.	-2511 Feb 01 j 18:25	23° $\mathring{\text{B}}$ 36'26	10.28174 AU
opposition	-2517 May 30 j 07:58	15° $\mathring{\text{M}}$ 59'20	1°22'30	morning rise	-2511 Feb 19 j 08:44	25° $\mathring{\text{B}}$ 50'31	
min. Earth dist.	-2517 May 30 j 20:15	15° $\mathring{\text{M}}$ 57'04	8.98437 AU		-2511 Mar 27 j 07:30	0° $\mathring{\approx}$	
	-2517 Jun 12 j 21:09	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$		retrograde	-2511 Jun 06 j 14:12	4° $\mathring{\approx}$ 00'59	
direct	-2517 Aug 08 j 14:13	12° $\mathring{\text{M}}$ 40'43		opposition	-2511 Aug 14 j 19:19	0° $\mathring{\approx}$ 32'19	-2°-7'-42
	-2517 Oct 01 j 13:14	15° $\mathring{\text{M}}$		min. Earth dist.	-2511 Aug 14 j 20:48	0° $\mathring{\approx}$ 32'01	8.21839 AU
evening set	-2517 Nov 16 j 11:36	19° $\mathring{\text{M}}$ 42'22			-2511 Aug 21 j 13:41	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
				direct	-2511 Oct 20 j 14:36	27° $\mathring{\text{B}}$ 08'44	
conjunction	-2517 Dec 03 j 01:52	21° $\mathring{\text{M}}$ 40'28	0°54'36		-2511 Dec 16 j 14:35	0° $\mathring{\approx}$	
minimum elong	-2517 Dec 03 j 01:54	21° $\mathring{\text{M}}$ 40'28	0°54'33	evening set	-2510 Jan 29 j 14:04	4° $\mathring{\approx}$ 58'43	
max. Earth dist.	-2517 Dec 02 j 12:33	21° $\mathring{\text{M}}$ 36'29	10.93433 AU				
morning rise	-2517 Dec 19 j 18:17	23° $\mathring{\text{M}}$ 39'18		conjunction	-2510 Feb 15 j 23:23	7° $\mathring{\approx}$ 12'51	-1°-53'-17
	-2516 Feb 26 j 23:39	0° $\mathring{\text{A}}$		minimum elong	-2510 Feb 15 j 23:20	7° $\mathring{\approx}$ 12'50	1°53'21
retrograde	-2516 Mar 31 j 16:43	0° $\mathring{\text{A}}$ 54'53		max. Earth dist.	-2510 Feb 15 j 23:33	7° $\mathring{\approx}$ 12'54	10.15819 AU
	-2516 May 05 j 01:28	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		morning rise	-2510 Mar 05 j 13:39	9° $\mathring{\approx}$ 28'37	

Attention, astronomical year style is used: The year -2510 in astronomical counting style is the year 2511 BCE in historical counting style.

	-2510 Apr 23 j 21:53	15°♊		conjunction	-2504 May 16 j 18:31	3°♏53'45	-1°-31'-13
retrograde	-2510 Jun 21 j 06:51	17°♊49'08		minimum elong	-2504 May 16 j 18:34	3°♏53'47	1°31'11
	-2510 Aug 20 j 12:22	15°♊		max. Earth dist.	-2504 May 17 j 08:37	3°♏58'23	9.97565 AU
opposition	-2510 Aug 28 j 22:16	14°♊19'20	-2°-33'-7	morning rise	-2504 Jun 03 j 22:29	6°♏15'37	
min. Earth dist.	-2510 Aug 28 j 20:32	14°♊19'41	8.10412 AU	retrograde	-2504 Sep 16 j 09:47	14°♏31'37	
direct	-2510 Nov 03 j 07:08	10°♊54'28		opposition	-2504 Nov 21 j 20:00	11°♏03'02	-1°-36'-24
	-2509 Jan 11 j 06:15	15°♊		min. Earth dist.	-2504 Nov 21 j 08:41	11°♏05'23	8.01440 AU
evening set	-2509 Feb 13 j 00:06	18°♊54'29		direct	-2503 Jan 27 j 21:51	7°♏33'13	
					-2503 May 07 j 02:16	15°♏	
conjunction	-2509 Mar 02 j 13:13	21°♊11'17	-2°-10'-14	evening set	-2503 May 13 j 20:18	15°♏50'59	
minimum elong	-2509 Mar 02 j 13:10	21°♊11'16	2°10'17				
max. Earth dist.	-2509 Mar 02 j 16:41	21°♊12'25	10.05346 AU	conjunction	-2503 Jun 01 j 00:58	18°♏11'38	-1°-1'-53
morning rise	-2509 Mar 20 j 07:01	23°♊29'38		minimum elong	-2503 Jun 01 j 01:01	18°♏11'39	1°01'51
	-2509 May 19 j 09:29	0°♋		max. Earth dist.	-2503 Jun 01 j 15:53	18°♏16'29	10.05969 AU
retrograde	-2509 Jul 06 j 04:54	1°♋57'52		morning rise	-2503 Jun 19 j 03:31	20°♏31'36	
	-2509 Aug 23 j 17:49	30°♊		retrograde	-2503 Sep 30 j 10:31	28°♏36'24	
opposition	-2509 Sep 12 j 06:43	28°♊27'13	-2°-50'00	opposition	-2503 Dec 05 j 21:38	25°♏09'15	0°-57'-27
min. Earth dist.	-2509 Sep 12 j 02:25	28°♊28'06	8.01178 AU	min. Earth dist.	-2503 Dec 05 j 10:12	25°♏11'36	8.11143 AU
direct	-2509 Nov 17 j 08:18	25°♊01'03		direct	-2502 Feb 11 j 13:21	21°♏39'34	
	-2508 Feb 02 j 02:24	0°♋		evening set	-2502 May 28 j 18:38	29°♏51'01	
evening set	-2508 Feb 27 j 21:01	3°♋10'01			-2502 May 29 j 23:14	0°♌	
conjunction	-2508 Mar 16 j 13:59	5°♋29'09	-2°-19'-37	conjunction	-2502 Jun 15 j 21:45	2°♌09'24	0°-29'-28
minimum elong	-2508 Mar 16 j 13:58	5°♋29'08	2°19'39	minimum elong	-2502 Jun 15 j 21:46	2°♌09'25	0°29'25
max. Earth dist.	-2508 Mar 16 j 20:03	5°♋31'09	9.97358 AU	max. Earth dist.	-2502 Jun 16 j 12:15	2°♌14'03	10.16936 AU
morning rise	-2508 Apr 03 j 11:10	7°♋49'38		morning rise	-2502 Jul 03 j 21:28	4°♌26'42	
retrograde	-2508 Jul 20 j 06:09	16°♋22'31		retrograde	-2502 Oct 14 j 02:37	12°♌19'20	
opposition	-2508 Sep 25 j 19:14	12°♋51'25	-2°-56'-37	opposition	-2502 Dec 19 j 16:12	8°♌53'48	0°-16'-13
min. Earth dist.	-2508 Sep 25 j 13:14	12°♋52'40	7.94639 AU	min. Earth dist.	-2502 Dec 19 j 05:42	8°♌55'56	8.23077 AU
direct	-2508 Nov 30 j 17:05	9°♋24'02		direct	-2501 Feb 25 j 22:51	5°♌24'34	
evening set	-2507 Mar 14 j 02:18	17°♋40'12		asc. node	-2501 May 17 j 12:23	10°♌26'02	
				evening set	-2501 Jun 12 j 06:58	13°♌28'05	
conjunction	-2507 Mar 31 j 23:03	20°♋01'11	-2°-20'-20				
minimum elong	-2507 Mar 31 j 23:04	20°♋01'11	2°20'21	conjunction	-2501 Jun 30 j 06:54	15°♌43'33	0°03'53
max. Earth dist.	-2507 Apr 01 j 07:27	20°♋03'58	9.92292 AU	minimum elong	-2501 Jun 30 j 06:53	15°♌43'33	0°03'58
morning rise	-2507 Apr 18 j 23:12	22°♋23'14		behind sun begin	-2501 Jun 29 j 23:42	15°♌41'18	
	-2507 Jul 02 j 21:52	0°♌		behind sun end	-2501 Jun 30 j 14:05	15°♌45'48	
retrograde	-2507 Aug 04 j 07:50	0°♌57'18		max. Earth dist.	-2501 Jun 30 j 19:45	15°♌47'36	10.29739 AU
	-2507 Sep 05 j 19:55	30°♊		morning rise	-2501 Jul 18 j 02:32	17°♌57'40	
opposition	-2507 Oct 10 j 09:46	27°♋26'14	-2°-51'-57	retrograde	-2501 Oct 27 j 06:58	25°♌38'02	
min. Earth dist.	-2507 Oct 10 j 02:21	27°♋27'47	7.91178 AU	opposition	-2500 Jan 02 j 03:05	22°♌14'13	0°24'37
direct	-2507 Dec 15 j 08:04	23°♋57'50		min. Earth dist.	-2500 Jan 01 j 18:23	22°♌15'58	8.36503 AU
	-2506 Mar 11 j 03:48	0°♌		direct	-2500 Mar 11 j 02:30	18°♌45'43	
evening set	-2506 Mar 29 j 13:15	2°♌18'51		evening set	-2500 Jun 25 j 07:49	26°♌40'20	
conjunction	-2506 Apr 16 j 13:29	4°♌41'04	-2°-12'-3	conjunction	-2500 Jul 13 j 03:20	28°♌52'28	0°36'02
minimum elong	-2506 Apr 16 j 13:32	4°♌41'05	2°12'03	minimum elong	-2500 Jul 13 j 03:18	28°♌52'28	0°36'06
max. Earth dist.	-2506 Apr 17 j 00:08	4°♌44'35	9.90524 AU	max. Earth dist.	-2500 Jul 13 j 13:26	28°♌55'37	10.43619 AU
morning rise	-2506 May 04 j 16:02	7°♌03'58			-2500 Jul 22 j 04:41	0°♍	
retrograde	-2506 Aug 19 j 07:05	15°♌35'25		morning rise	-2500 Jul 30 j 18:04	1°♍03'07	
opposition	-2506 Oct 25 j 00:11	12°♌04'48	-2°-36'-5	retrograde	-2500 Nov 08 j 00:41	8°♍31'58	
min. Earth dist.	-2506 Oct 24 j 15:21	12°♌06'39	7.91136 AU	opposition	-2499 Jan 14 j 06:15	5°♍09'48	1°02'50
direct	-2506 Dec 30 j 04:03	8°♌35'37		min. Earth dist.	-2499 Jan 13 j 23:19	5°♍11'10	8.50661 AU
evening set	-2505 Apr 14 j 02:23	16°♌58'35		direct	-2499 Mar 24 j 22:08	1°♍42'14	
				evening set	-2499 Jul 08 j 20:31	9°♍27'34	
conjunction	-2505 May 02 j 05:25	19°♌21'13	-1°-55'-14				
minimum elong	-2505 May 02 j 05:28	19°♌21'14	1°55'14	conjunction	-2499 Jul 26 j 10:54	11°♍36'15	1°05'31
max. Earth dist.	-2505 May 02 j 17:59	19°♌25'22	9.92302 AU	minimum elong	-2499 Jul 26 j 10:52	11°♍36'14	1°05'35
morning rise	-2505 May 20 j 09:22	21°♌44'05		max. Earth dist.	-2499 Jul 26 j 17:59	11°♍38'25	10.57828 AU
	-2505 Aug 21 j 05:16	0°♎		morning rise	-2499 Aug 12 j 20:20	13°♍43'23	
retrograde	-2505 Sep 03 j 00:18	0°♎09'17		retrograde	-2499 Nov 20 j 10:47	21°♍01'53	
	-2505 Sep 15 j 19:36	30°♊		opposition	-2498 Jan 27 j 01:58	17°♍41'15	1°36'46
opposition	-2505 Nov 08 j 12:19	26°♌39'31	-2°-10'-12	min. Earth dist.	-2498 Jan 26 j 20:32	17°♍42'18	8.64805 AU
min. Earth dist.	-2505 Nov 08 j 02:07	26°♌41'39	7.94622 AU	direct	-2498 Apr 07 j 08:17	14°♍14'50	
direct	-2504 Jan 14 j 01:42	23°♌09'51		evening set	-2498 Jul 21 j 21:37	21°♍50'58	
	-2504 Apr 16 j 11:04	0°♎					
evening set	-2504 Apr 28 j 13:55	1°♎31'39		conjunction	-2498 Aug 08 j 06:37	23°♍56'18	1°31'09

# Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 34

Attention, astronomical year style is used: The year -2498 in astronomical counting style is the year 2499 BCE in historical counting style.

minimum elong	-2498 Aug 08 j 06:34	23° <del>5</del> 56'17	1°31'12	conjunction	-2492 Oct 14 j 20:18	2° <del>5</del> 19'30	2°16'19
max. Earth dist.	-2498 Aug 08 j 11:16	23° <del>5</del> 57'42	10.71661 AU	minimum elong	-2492 Oct 14 j 20:19	2° <del>5</del> 19'31	2°16'19
morning rise	-2498 Aug 25 j 10:30	26° <del>5</del> 00'04		max. Earth dist.	-2492 Oct 14 j 10:47	2° <del>5</del> 16'44	11.19285 AU
	-2498 Oct 01 j 09:30	0° <del>0</del>		morning rise	-2492 Oct 31 j 05:18	4° <del>5</del> 12'56	
retrograde	-2498 Dec 02 j 13:22	3° <del>0</del> 09'39		retrograde	-2491 Feb 07 j 23:01	11° <del>5</del> 03'32	
	-2497 Feb 06 j 12:54	30° <del>8</del>		opposition	-2491 Apr 19 j 10:51	7° <del>5</del> 47'27	2°40'05
opposition	-2497 Feb 08 j 14:55	29° <del>5</del> 50'24	2°05'13	min. Earth dist.	-2491 Apr 19 j 20:17	7° <del>5</del> 45'44	9.19487 AU
min. Earth dist.	-2497 Feb 08 j 11:13	29° <del>5</del> 51'06	8.78269 AU	direct	-2491 Jun 29 j 22:41	4° <del>5</del> 28'54	
direct	-2497 Apr 20 j 09:03	26° <del>5</del> 25'14		evening set	-2491 Oct 09 j 10:33	11° <del>5</del> 25'21	
	-2497 Jun 28 j 11:26	0° <del>0</del>					
evening set	-2497 Aug 03 j 11:39	3° <del>0</del> 52'42		conjunction	-2491 Oct 25 j 20:42	13° <del>5</del> 19'14	2°05'22
				minimum elong	-2491 Oct 25 j 20:45	13° <del>5</del> 19'15	2°05'20
conjunction	-2497 Aug 20 j 15:22	5° <del>0</del> 54'56	1°52'05	max. Earth dist.	-2491 Oct 25 j 08:51	13° <del>5</del> 15'47	11.18644 AU
minimum elong	-2497 Aug 20 j 15:19	5° <del>0</del> 54'55	1°52'07	morning rise	-2491 Nov 11 j 06:04	15° <del>5</del> 12'54	
max. Earth dist.	-2497 Aug 20 j 17:55	5° <del>0</del> 55'42	10.84512 AU	retrograde	-2490 Feb 19 j 12:15	22° <del>5</del> 06'03	
morning rise	-2497 Sep 06 j 13:56	7° <del>0</del> 55'41		opposition	-2490 May 01 j 07:03	18° <del>5</del> 49'27	2°23'51
retrograde	-2497 Dec 14 j 10:03	14° <del>0</del> 57'58		min. Earth dist.	-2490 May 01 j 17:58	18° <del>5</del> 47'28	9.17449 AU
opposition	-2496 Feb 20 j 22:20	11° <del>0</del> 39'54	2°27'29	direct	-2490 Jul 11 j 12:57	15° <del>5</del> 31'23	
min. Earth dist.	-2496 Feb 20 j 21:09	11° <del>0</del> 40'08	8.90490 AU	evening set	-2490 Oct 20 j 11:17	22° <del>5</del> 27'09	
direct	-2496 May 02 j 02:11	8° <del>0</del> 16'03					
	-2496 Aug 09 j 11:49	15° <del>0</del>		conjunction	-2490 Nov 05 j 21:43	24° <del>5</del> 21'32	1°49'42
evening set	-2496 Aug 14 j 15:38	15° <del>0</del> 35'35		minimum elong	-2490 Nov 05 j 21:46	24° <del>5</del> 21'33	1°49'40
				max. Earth dist.	-2490 Nov 05 j 09:14	24° <del>5</del> 17'53	11.15291 AU
conjunction	-2496 Aug 31 j 14:21	17° <del>0</del> 35'07	2°07'49	morning rise	-2490 Nov 22 j 08:08	26° <del>5</del> 15'59	
minimum elong	-2496 Aug 31 j 14:19	17° <del>0</del> 35'06	2°07'51		-2490 Dec 27 j 23:15	0° <del>0</del>	
max. Earth dist.	-2496 Aug 31 j 14:04	17° <del>0</del> 35'01	10.95870 AU	retrograde	-2489 Mar 03 j 06:37	3° <del>0</del> 13'21	
morning rise	-2496 Sep 17 j 08:22	19° <del>0</del> 33'17			-2489 May 12 j 06:56	30° <del>8</del>	
retrograde	-2496 Dec 25 j 02:19	26° <del>0</del> 29'55		opposition	-2489 May 13 j 05:23	29° <del>5</del> 55'54	2°02'10
opposition	-2495 Mar 04 j 01:00	23° <del>0</del> 12'50	2°43'11	min. Earth dist.	-2489 May 13 j 16:28	29° <del>5</del> 53'52	9.12709 AU
min. Earth dist.	-2495 Mar 04 j 02:44	23° <del>0</del> 12'31	9.00997 AU	direct	-2489 Jul 23 j 04:04	26° <del>5</del> 38'04	
direct	-2495 May 14 j 11:05	19° <del>0</del> 50'17			-2489 Sep 27 j 18:42	0° <del>0</del>	
evening set	-2495 Aug 26 j 11:08	27° <del>0</del> 02'51		evening set	-2489 Oct 31 j 13:40	3° <del>0</del> 34'36	
conjunction	-2495 Sep 12 j 05:28	29° <del>0</del> 00'09	2°18'08	conjunction	-2489 Nov 17 j 01:13	5° <del>0</del> 30'02	1°29'46
minimum elong	-2495 Sep 12 j 05:27	29° <del>0</del> 00'09	2°18'10	minimum elong	-2489 Nov 17 j 01:15	5° <del>0</del> 30'03	1°29'45
max. Earth dist.	-2495 Sep 12 j 01:40	28° <del>0</del> 59'02	11.05316 AU	max. Earth dist.	-2489 Nov 16 j 12:27	5° <del>0</del> 26'17	11.09290 AU
	-2495 Sep 20 j 17:43	0° <del>0</del>		morning rise	-2489 Dec 03 j 13:26	7° <del>0</del> 25'47	
morning rise	-2495 Sep 28 j 19:53	0° <del>0</del> 56'18		retrograde	-2488 Mar 14 j 07:15	14° <del>0</del> 28'54	
retrograde	-2494 Jan 05 j 12:49	7° <del>0</del> 48'56		opposition	-2488 May 24 j 06:56	11° <del>0</del> 10'22	1°35'35
opposition	-2494 Mar 15 j 23:49	4° <del>0</del> 32'33	2°52'12	min. Earth dist.	-2488 May 24 j 18:23	11° <del>0</del> 08'16	9.05373 AU
min. Earth dist.	-2494 Mar 16 j 03:46	4° <del>0</del> 31'49	9.09396 AU	direct	-2488 Aug 02 j 18:44	7° <del>0</del> 52'31	
direct	-2494 May 26 j 14:45	1° <del>0</del> 11'12		evening set	-2488 Nov 10 j 19:35	14° <del>0</del> 51'25	
evening set	-2494 Sep 06 j 23:30	8° <del>0</del> 17'56			-2488 Nov 12 j 01:09	15° <del>0</del>	
conjunction	-2494 Sep 23 j 14:26	10° <del>0</del> 13'32	2°22'55	conjunction	-2488 Nov 27 j 08:45	16° <del>0</del> 48'22	1°06'06
minimum elong	-2494 Sep 23 j 14:25	10° <del>0</del> 13'32	2°22'57	minimum elong	-2488 Nov 27 j 08:47	16° <del>0</del> 48'23	1°06'04
max. Earth dist.	-2494 Sep 23 j 08:17	10° <del>0</del> 11'44	11.12516 AU	max. Earth dist.	-2488 Nov 26 j 18:45	16° <del>0</del> 44'13	11.00772 AU
morning rise	-2494 Oct 10 j 02:02	12° <del>0</del> 08'11		morning rise	-2488 Dec 13 j 23:38	18° <del>0</del> 45'55	
retrograde	-2493 Jan 17 j 00:41	18° <del>0</del> 58'32		retrograde	-2487 Mar 26 j 12:44	25° <del>0</del> 56'26	
opposition	-2493 Mar 27 j 20:22	15° <del>0</del> 42'32	2°54'33	opposition	-2487 Jun 05 j 12:59	22° <del>0</del> 36'36	1°04'44
min. Earth dist.	-2493 Mar 28 j 01:39	15° <del>0</del> 41'34	9.15392 AU	min. Earth dist.	-2487 Jun 06 j 01:12	22° <del>0</del> 34'20	8.95621 AU
direct	-2493 Jun 07 j 14:09	12° <del>0</del> 22'20		direct	-2487 Aug 14 j 12:07	19° <del>0</del> 18'25	
evening set	-2493 Sep 18 j 06:15	19° <del>0</del> 24'20		evening set	-2487 Nov 22 j 06:57	26° <del>0</del> 21'27	
conjunction	-2493 Oct 04 j 18:46	21° <del>0</del> 18'48	2°22'16	conjunction	-2487 Dec 08 j 22:15	28° <del>0</del> 20'22	0°39'22
minimum elong	-2493 Oct 04 j 18:46	21° <del>0</del> 18'48	2°22'17	minimum elong	-2487 Dec 08 j 22:16	28° <del>0</del> 20'22	0°39'18
max. Earth dist.	-2493 Oct 04 j 11:28	21° <del>0</del> 16'40	11.17221 AU	max. Earth dist.	-2487 Dec 08 j 07:35	28° <del>0</del> 15'58	10.89991 AU
morning rise	-2493 Oct 21 j 04:28	23° <del>0</del> 12'33			-2487 Dec 22 j 19:56	0° <del>0</del>	
	-2492 Jan 21 j 18:26	0° <del>0</del>		morning rise	-2487 Dec 25 j 16:19	0° <del>0</del> 20'09	
retrograde	-2492 Jan 28 j 11:26	0° <del>0</del> 02'13		retrograde	-2486 Apr 08 j 02:50	7° <del>0</del> 39'40	
	-2492 Feb 04 j 05:05	30° <del>0</del> 8		opposition	-2486 Jun 18 j 00:33	4° <del>0</del> 18'20	0°30'28
opposition	-2492 Apr 07 j 15:45	26° <del>0</del> 46'20	2°50'26	min. Earth dist.	-2486 Jun 18 j 12:46	4° <del>0</del> 16'03	8.83816 AU
min. Earth dist.	-2492 Apr 07 j 22:54	26° <del>0</del> 45'01	9.18790 AU	direct	-2486 Aug 26 j 11:01	0° <del>0</del> 59'35	
direct	-2492 Jun 18 j 07:04	23° <del>0</del> 27'04		evening set	-2486 Dec 04 j 01:37	8° <del>0</del> 08'21	
	-2492 Sep 24 j 14:46	0° <del>0</del>					
evening set	-2492 Sep 28 j 09:25	0° <del>0</del> 25'36		conjunction	-2486 Dec 20 j 19:42	10° <del>0</del> 09'38	0°10'24
				minimum elong	-2486 Dec 20 j 19:43	10° <del>0</del> 09'38	0°10'20

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), AstroDienst AG 7-Dez-2017 14:41, page 35

Attention, astronomical year style is used: The year -2486 in astronomical counting style is the year 2487 BCE in historical counting style.

behind sun begin	-2486 Dec 20 j 14:07	10° $\mathring{\text{A}}$ 07'57		minimum elong	-2479 Mar 10 j 01:14	29° $\approx$ 09'07	2°16'26
behind sun end	-2486 Dec 21 j 01:18	10° $\mathring{\text{A}}$ 11'19		max. Earth dist.	-2479 Mar 10 j 05:05	29° $\approx$ 10'23	9.99158 AU
max. Earth dist.	-2486 Dec 20 j 06:19	10° $\mathring{\text{A}}$ 05'34	10.77388 AU		-2479 Mar 16 j 11:58	0° $\mathring{\text{H}}$	
morning rise	-2485 Jan 06 j 17:14	12° $\mathring{\text{A}}$ 12'01		morning rise	-2479 Mar 27 j 20:59	1° $\mathring{\text{H}}$ 28'53	
retrograde	-2485 Apr 21 j 01:47	19° $\mathring{\text{A}}$ 41'54		retrograde	-2479 Jul 13 j 16:52	10° $\mathring{\text{H}}$ 00'46	
desc. node	-2485 Apr 29 j 23:21	19° $\mathring{\text{A}}$ 38'00		opposition	-2479 Sep 19 j 13:11	6° $\mathring{\text{H}}$ 29'16	-2°-55'-5
opposition	-2485 Jun 30 j 18:33	16° $\mathring{\text{A}}$ 18'52	0°-6'-4	min. Earth dist.	-2479 Sep 19 j 08:43	6° $\mathring{\text{H}}$ 30'11	7.95551 AU
min. Earth dist.	-2485 Jul 01 j 05:16	16° $\mathring{\text{A}}$ 16'50	8.70482 AU	direct	-2479 Nov 24 j 13:22	3° $\mathring{\text{H}}$ 01'51	
direct	-2485 Sep 07 j 14:34	12° $\mathring{\text{A}}$ 59'17		evening set	-2478 Mar 07 j 11:42	11° $\mathring{\text{H}}$ 15'42	
evening set	-2485 Dec 16 j 05:26	20° $\mathring{\text{A}}$ 15'20					
conjunction	-2484 Jan 02 j 02:39	22° $\mathring{\text{A}}$ 19'17	0°-19'-50	conjunction	-2478 Mar 25 j 06:57	13° $\mathring{\text{H}}$ 36'10	-2°-21'-11
minimum elong	-2484 Jan 02 j 02:38	22° $\mathring{\text{A}}$ 19'17	0°19'56	minimum elong	-2478 Mar 25 j 06:57	13° $\mathring{\text{H}}$ 36'10	2°21'12
max. Earth dist.	-2484 Jan 01 j 15:20	22° $\mathring{\text{A}}$ 15'48	10.63516 AU	max. Earth dist.	-2478 Mar 25 j 14:51	13° $\mathring{\text{H}}$ 38'47	9.92376 AU
morning rise	-2484 Jan 19 j 03:49	24° $\mathring{\text{A}}$ 24'33		morning rise	-2478 Apr 12 j 05:49	15° $\mathring{\text{H}}$ 57'51	
	-2484 Mar 13 j 05:13	0° $\mathring{\text{B}}$		retrograde	-2478 Jul 28 j 19:27	24° $\mathring{\text{H}}$ 32'48	
retrograde	-2484 May 03 j 10:37	2° $\mathring{\text{B}}$ 05'48		opposition	-2478 Oct 04 j 03:22	21° $\mathring{\text{H}}$ 01'01	-2°-55'-40
	-2484 Jun 25 j 05:50	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		min. Earth dist.	-2478 Oct 03 j 19:58	21° $\mathring{\text{H}}$ 02'33	7.90455 AU
opposition	-2484 Jul 12 j 19:39	28° $\mathring{\text{A}}$ 40'59	0°-43'-32	direct	-2478 Dec 09 j 01:11	17° $\mathring{\text{H}}$ 32'28	
min. Earth dist.	-2484 Jul 13 j 04:06	28° $\mathring{\text{A}}$ 39'21	8.56210 AU	evening set	-2477 Mar 22 j 20:50	25° $\mathring{\text{H}}$ 52'23	
direct	-2484 Sep 19 j 01:35	25° $\mathring{\text{A}}$ 20'20		conjunction	-2477 Apr 09 j 19:49	28° $\mathring{\text{H}}$ 14'25	-2°-17'-1
	-2484 Dec 04 j 05:40	0° $\mathring{\text{B}}$		minimum elong	-2477 Apr 09 j 19:51	28° $\mathring{\text{H}}$ 14'26	2°17'01
evening set	-2484 Dec 27 j 20:09	2° $\mathring{\text{B}}$ 45'04		max. Earth dist.	-2477 Apr 10 j 06:58	28° $\mathring{\text{H}}$ 18'07	9.89017 AU
conjunction	-2483 Jan 13 j 20:34	4° $\mathring{\text{B}}$ 51'54	0°-49'-55		-2477 Apr 23 j 03:07	0° $\mathring{\text{Y}}$	
minimum elong	-2483 Jan 13 j 20:32	4° $\mathring{\text{B}}$ 51'53	0°50'01	morning rise	-2477 Apr 27 j 21:21	0° $\mathring{\text{Y}}$ 37'18	
max. Earth dist.	-2483 Jan 13 j 11:01	4° $\mathring{\text{B}}$ 48'54	10.49003 AU	retrograde	-2477 Aug 12 j 21:25	9° $\mathring{\text{Y}}$ 11'20	
morning rise	-2483 Jan 31 j 01:33	7° $\mathring{\text{B}}$ 00'13		opposition	-2477 Oct 18 j 18:24	5° $\mathring{\text{Y}}$ 39'47	-2°-44'-50
retrograde	-2483 May 17 j 05:53	14° $\mathring{\text{B}}$ 53'22		min. Earth dist.	-2477 Oct 18 j 08:55	5° $\mathring{\text{Y}}$ 41'46	7.88898 AU
opposition	-2483 Jul 26 j 04:14	11° $\mathring{\text{B}}$ 26'47	-1°-20'-10	direct	-2477 Dec 23 j 19:04	2° $\mathring{\text{Y}}$ 10'20	
min. Earth dist.	-2483 Jul 26 j 10:28	11° $\mathring{\text{B}}$ 25'34	8.41668 AU	evening set	-2476 Apr 06 j 09:50	10° $\mathring{\text{Y}}$ 33'31	
direct	-2483 Oct 01 j 19:02	8° $\mathring{\text{B}}$ 04'54		conjunction	-2476 Apr 24 j 11:53	12° $\mathring{\text{Y}}$ 56'19	-2°-3'-58
evening set	-2482 Jan 09 j 22:48	15° $\mathring{\text{B}}$ 39'26		minimum elong	-2476 Apr 24 j 11:56	12° $\mathring{\text{Y}}$ 56'20	2°03'58
conjunction	-2482 Jan 27 j 02:35	17° $\mathring{\text{B}}$ 49'15	-1°-18'-22	max. Earth dist.	-2476 Apr 25 j 01:27	13° $\mathring{\text{Y}}$ 00'48	9.89326 AU
minimum elong	-2482 Jan 27 j 02:32	17° $\mathring{\text{B}}$ 49'14	1°18'27	morning rise	-2476 May 12 j 15:16	15° $\mathring{\text{Y}}$ 19'32	
max. Earth dist.	-2482 Jan 26 j 19:07	17° $\mathring{\text{B}}$ 46'52	10.34561 AU	retrograde	-2476 Aug 26 j 18:28	23° $\mathring{\text{Y}}$ 48'47	
morning rise	-2482 Feb 13 j 11:28	20° $\mathring{\text{B}}$ 00'42		opposition	-2476 Nov 01 j 08:15	20° $\mathring{\text{Y}}$ 17'58	-2°-23'-15
retrograde	-2482 May 31 j 10:38	28° $\mathring{\text{B}}$ 05'43		min. Earth dist.	-2476 Oct 31 j 21:28	20° $\mathring{\text{Y}}$ 20'13	7.91003 AU
opposition	-2482 Aug 08 j 20:38	24° $\mathring{\text{B}}$ 37'30	-1°-53'-55	direct	-2475 Jan 06 j 16:13	16° $\mathring{\text{Y}}$ 47'58	
min. Earth dist.	-2482 Aug 09 j 00:45	24° $\mathring{\text{B}}$ 36'41	8.27593 AU	evening set	-2475 Apr 21 j 22:39	25° $\mathring{\text{Y}}$ 11'14	
direct	-2482 Oct 14 j 21:00	21° $\mathring{\text{B}}$ 14'13		conjunction	-2475 May 10 j 02:45	27° $\mathring{\text{Y}}$ 33'54	-1°-43'00
evening set	-2481 Jan 23 j 14:02	28° $\mathring{\text{B}}$ 59'15		minimum elong	-2475 May 10 j 02:49	27° $\mathring{\text{Y}}$ 33'55	1°42'59
	-2481 Jan 31 j 13:15	0° $\approx$		max. Earth dist.	-2475 May 10 j 17:45	27° $\mathring{\text{Y}}$ 38'50	9.93294 AU
conjunction	-2481 Feb 09 j 21:27	1° $\approx$ 12'03	-1°-43'-27	morning rise	-2475 May 28 j 06:54	29° $\mathring{\text{Y}}$ 56'32	
minimum elong	-2481 Feb 09 j 21:24	1° $\approx$ 12'02	1°43'32		-2475 May 28 j 17:40	0° $\mathring{\text{B}}$	
max. Earth dist.	-2481 Feb 09 j 17:04	1° $\approx$ 10'39	10.20939 AU	retrograde	-2475 Sep 10 j 08:09	8° $\mathring{\text{B}}$ 17'42	
morning rise	-2481 Feb 27 j 10:11	3° $\approx$ 26'33		opposition	-2475 Nov 15 j 18:34	4° $\mathring{\text{B}}$ 48'03	-1°-52'-41
retrograde	-2481 Jun 14 j 22:16	11° $\approx$ 42'37		min. Earth dist.	-2475 Nov 15 j 07:17	4° $\mathring{\text{B}}$ 50'24	7.96642 AU
opposition	-2481 Aug 22 j 20:18	8° $\approx$ 12'58	-2°-22'-29	direct	-2474 Jan 21 j 13:22	1° $\mathring{\text{B}}$ 17'51	
min. Earth dist.	-2481 Aug 22 j 21:59	8° $\approx$ 12'38	8.14734 AU	evening set	-2474 May 07 j 08:05	9° $\mathring{\text{B}}$ 38'16	
direct	-2481 Oct 28 j 10:21	4° $\approx$ 48'15		conjunction	-2474 May 25 j 12:53	11° $\mathring{\text{B}}$ 59'52	-1°-15'-47
evening set	-2480 Feb 06 j 18:07	12° $\approx$ 43'53		minimum elong	-2474 May 25 j 12:57	11° $\mathring{\text{B}}$ 59'53	1°15'45
conjunction	-2480 Feb 24 j 05:24	14° $\approx$ 59'34	-2°-3'-22	max. Earth dist.	-2474 May 26 j 04:08	12° $\mathring{\text{B}}$ 04'50	10.00647 AU
minimum elong	-2480 Feb 24 j 05:22	14° $\approx$ 59'33	2°03'25	morning rise	-2474 Jun 12 j 16:27	14° $\mathring{\text{B}}$ 20'58	
max. Earth dist.	-2480 Feb 24 j 04:52	14° $\approx$ 59'23	10.08894 AU		-2474 Jun 17 j 19:32	15° $\mathring{\text{B}}$	
	-2480 Feb 24 j 06:45	15° $\approx$		retrograde	-2474 Sep 24 j 13:18	22° $\mathring{\text{B}}$ 31'35	
morning rise	-2480 Mar 12 j 21:45	17° $\approx$ 16'52		opposition	-2474 Nov 29 j 23:24	19° $\mathring{\text{B}}$ 03'28	-1°-15'-39
retrograde	-2480 Jun 28 j 16:44	25° $\approx$ 42'11		min. Earth dist.	-2474 Nov 29 j 12:00	19° $\mathring{\text{B}}$ 05'49	8.05436 AU
opposition	-2480 Sep 05 j 02:10	22° $\approx$ 11'25	-2°-43'-33	direct	-2473 Feb 05 j 07:49	15° $\mathring{\text{B}}$ 33'25	
min. Earth dist.	-2480 Sep 05 j 01:00	22° $\approx$ 11'40	8.03827 AU	evening set	-2473 May 22 j 10:52	23° $\mathring{\text{B}}$ 48'29	
direct	-2480 Nov 10 j 08:05	18° $\approx$ 45'18		conjunction	-2473 Jun 09 j 14:49	26° $\mathring{\text{B}}$ 08'07	0°-44'-26
evening set	-2479 Feb 20 j 09:59	26° $\approx$ 50'50		minimum elong	-2473 Jun 09 j 14:51	26° $\mathring{\text{B}}$ 08'08	0°44'23
conjunction	-2479 Mar 10 j 01:16	29° $\approx$ 09'08	-2°-16'-23	max. Earth dist.	-2473 Jun 10 j 05:35	26° $\mathring{\text{B}}$ 12'52	10.10877 AU
				morning rise	-2473 Jun 27 j 16:15	28° $\mathring{\text{B}}$ 26'52	

# Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 36

Attention, astronomical year style is used: The year -2473 in astronomical counting style is the year 2474 BCE in historical counting style.

	-2473 Jul 10 j 05:26	0°♊		minimum elong	-2467 Aug 26 j 18:06	12°♌42'12	2°01'27
retrograde	-2473 Oct 08 j 09:10	6°♊25'32		max. Earth dist.	-2467 Aug 26 j 17:50	12°♌42'07	10.91780 AU
opposition	-2473 Dec 13 j 21:41	2°♊59'10	0°-35'-1	morning rise	-2467 Sep 12 j 14:16	14°♌41'28	
min. Earth dist.	-2473 Dec 13 j 10:19	3°♊01'29	8.16804 AU		-2467 Sep 15 j 06:15	15°♌	
	-2472 Jan 27 j 00:28	30°♋8		retrograde	-2467 Dec 20 j 09:05	21°♌40'30	
direct	-2472 Feb 19 j 21:28	29°♋29'39		opposition	-2466 Feb 27 j 02:38	18°♌23'26	2°36'56
	-2472 Mar 14 j 18:10	0°♊		min. Earth dist.	-2466 Feb 27 j 03:03	18°♌23'21	8.97220 AU
evening set	-2472 Jun 05 j 04:20	7°♊37'21		direct	-2466 May 09 j 10:22	15°♌00'43	
				evening set	-2466 Aug 21 j 16:57	22°♌16'26	
conjunction	-2472 Jun 23 j 05:51	9°♊54'18	0°-11'-14				
minimum elong	-2472 Jun 23 j 05:51	9°♊54'18	0°11'11	conjunction	-2466 Sep 07 j 13:15	24°♌14'40	2°14'09
behind sun begin	-2472 Jun 23 j 00:31	9°♊52'38		minimum elong	-2466 Sep 07 j 13:14	24°♌14'40	2°14'11
behind sun end	-2472 Jun 23 j 11:11	9°♊55'59		max. Earth dist.	-2466 Sep 07 j 10:42	24°♌13'55	11.01887 AU
max. Earth dist.	-2472 Jun 23 j 19:46	9°♊58'43	10.23313 AU	morning rise	-2466 Sep 24 j 05:06	26°♌11'40	
morning rise	-2472 Jul 11 j 03:41	12°♊10'02			-2466 Oct 30 j 07:28	0°♍	
retrograde	-2472 Oct 20 j 18:48	19°♊56'23		retrograde	-2466 Dec 31 j 23:16	3°♍06'04	
asc. node	-2472 Oct 28 j 18:05	19°♊52'50			-2465 Mar 08 j 20:26	30°♋♌	
opposition	-2472 Dec 26 j 12:30	16°♊31'51	0°06'23	opposition	-2465 Mar 11 j 03:31	29°♌49'45	2°48'55
min. Earth dist.	-2472 Dec 26 j 01:36	16°♊34'03	8.30032 AU	min. Earth dist.	-2465 Mar 11 j 06:37	29°♌49'10	9.06278 AU
direct	-2471 Mar 05 j 04:53	13°♊03'10		direct	-2465 May 21 j 16:11	26°♌28'12	
evening set	-2471 Jun 19 j 11:00	21°♊02'14			-2465 Jul 30 j 00:37	0°♍	
				evening set	-2465 Sep 02 j 08:50	3°♍37'40	
conjunction	-2471 Jul 07 j 08:45	23°♊15'59	0°21'46				
minimum elong	-2471 Jul 07 j 08:44	23°♊15'59	0°21'50	conjunction	-2465 Sep 19 j 01:17	5°♍33'59	2°21'23
max. Earth dist.	-2471 Jul 07 j 21:21	23°♊19'56	10.37197 AU	minimum elong	-2465 Sep 19 j 01:16	5°♍33'59	2°21'25
morning rise	-2471 Jul 25 j 01:54	25°♊28'18		max. Earth dist.	-2465 Sep 18 j 19:52	5°♍32'24	11.09747 AU
	-2471 Sep 03 j 22:13	0°♋		morning rise	-2465 Oct 05 j 13:53	7°♍29'16	
retrograde	-2471 Nov 02 j 18:42	3°♋02'39		retrograde	-2464 Jan 12 j 11:26	14°♍20'43	
	-2470 Jan 04 j 14:33	30°♋♊		opposition	-2464 Mar 22 j 01:33	11°♍04'49	2°54'13
opposition	-2470 Jan 08 j 19:30	29°♊39'57	0°46'05	min. Earth dist.	-2464 Mar 22 j 07:36	11°♍03'42	9.12969 AU
min. Earth dist.	-2470 Jan 08 j 09:58	29°♊41'51	8.44343 AU	direct	-2464 Jun 01 j 17:02	7°♍44'16	
direct	-2470 Mar 19 j 03:34	26°♊12'17		evening set	-2464 Sep 12 j 18:21	14°♍48'34	
	-2470 May 28 j 01:56	0°♋					
evening set	-2470 Jul 03 j 05:59	4°♋02'05		conjunction	-2464 Sep 29 j 07:47	16°♍43'32	2°23'07
				minimum elong	-2464 Sep 29 j 07:47	16°♍43'32	2°23'09
conjunction	-2470 Jul 20 j 22:57	6°♋12'23	0°52'41	max. Earth dist.	-2464 Sep 28 j 23:08	16°♍41'01	11.15157 AU
minimum elong	-2470 Jul 20 j 22:55	6°♋12'23	0°52'46	morning rise	-2464 Oct 15 j 18:21	18°♍37'42	
max. Earth dist.	-2470 Jul 21 j 09:31	6°♋15'39	10.51734 AU	retrograde	-2463 Jan 22 j 20:33	25°♍27'48	
morning rise	-2470 Aug 07 j 10:44	8°♋21'07		opposition	-2463 Apr 02 j 21:38	22°♍11'57	2°52'56
retrograde	-2470 Nov 15 j 10:10	15°♋44'24		min. Earth dist.	-2463 Apr 03 j 05:52	22°♍10'26	9.17100 AU
opposition	-2469 Jan 21 j 19:07	12°♋23'27	1°22'09	direct	-2463 Jun 13 j 13:27	18°♍52'14	
min. Earth dist.	-2469 Jan 21 j 12:06	12°♋24'49	8.58945 AU	evening set	-2463 Sep 23 j 23:15	25°♍52'35	
direct	-2469 Apr 01 j 17:09	8°♋56'57					
evening set	-2469 Jul 16 j 13:02	16°♋37'21		conjunction	-2463 Oct 10 j 10:44	27°♍46'45	2°19'29
				minimum elong	-2463 Oct 10 j 10:45	27°♍46'46	2°19'29
conjunction	-2469 Aug 03 j 00:32	18°♋44'10	1°20'12	max. Earth dist.	-2463 Oct 10 j 00:14	27°♍43'42	11.17960 AU
minimum elong	-2469 Aug 03 j 00:29	18°♋44'09	1°20'16	morning rise	-2463 Oct 26 j 20:06	29°♍40'22	
max. Earth dist.	-2469 Aug 03 j 07:43	18°♋46'22	10.66145 AU		-2463 Oct 29 j 17:22	0°♎	
morning rise	-2469 Aug 20 j 06:46	20°♋49'25		retrograde	-2462 Feb 03 j 08:23	6°♎30'45	
retrograde	-2469 Nov 27 j 15:57	28°♋02'56		opposition	-2462 Apr 14 j 16:48	3°♎14'37	2°45'19
opposition	-2468 Feb 03 j 11:39	24°♋43'32	1°53'11	min. Earth dist.	-2462 Apr 15 j 02:06	3°♎12'55	9.18548 AU
min. Earth dist.	-2468 Feb 03 j 07:26	24°♋44'21	8.73076 AU		-2462 Jun 15 j 14:33	30°♋♍	
direct	-2468 Apr 13 j 22:40	21°♋18'16		direct	-2462 Jun 25 j 08:04	29°♍55'32	
evening set	-2468 Jul 28 j 08:33	28°♋49'38			-2462 Jul 04 j 22:44	0°♎	
	-2468 Aug 07 j 05:22	0°♌		evening set	-2462 Oct 05 j 01:10	6°♎53'12	
conjunction	-2468 Aug 14 j 14:29	0°♌53'10	1°43'19	conjunction	-2462 Oct 21 j 11:44	8°♎47'10	2°10'42
minimum elong	-2468 Aug 14 j 14:25	0°♌53'09	1°43'22	minimum elong	-2462 Oct 21 j 11:46	8°♎47'11	2°10'41
max. Earth dist.	-2468 Aug 14 j 17:38	0°♌54'07	10.79709 AU	max. Earth dist.	-2462 Oct 21 j 00:28	8°♎43'54	11.18076 AU
morning rise	-2468 Aug 31 j 15:26	2°♌55'13		morning rise	-2462 Nov 06 j 20:48	10°♎40'47	
retrograde	-2468 Dec 08 j 14:21	10°♌00'36		retrograde	-2461 Feb 14 j 21:28	17°♎33'03	
opposition	-2467 Feb 14 j 21:46	6°♌42'30	2°18'17	opposition	-2461 Apr 26 j 12:40	14°♎16'22	2°31'38
min. Earth dist.	-2467 Feb 14 j 20:05	6°♌42'49	8.86030 AU	min. Earth dist.	-2461 Apr 26 j 22:58	14°♎14'29	9.17289 AU
direct	-2467 Apr 26 j 21:14	3°♌18'30		direct	-2461 Jul 06 j 21:50	10°♎57'44	
evening set	-2467 Aug 09 j 17:19	10°♌41'33		evening set	-2461 Oct 16 j 01:56	17°♎54'05	
conjunction	-2467 Aug 26 j 18:08	12°♌42'12	2°01'25	conjunction	-2461 Nov 01 j 12:19	19°♎48'21	1°57'04



## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:41, page 37

Attention, astronomical year style is used: The year -2461 in astronomical counting style is the year 2462 BCE in historical counting style.

minimum elong	-2461 Nov 01 j 12:21	19° $\overline{48}$ '22	1°57'02	evening set	-2455 Dec 22 j 17:11	27° $\overline{27}$ '32'46	
max. Earth dist.	-2461 Oct 31 j 23:38	19° $\overline{44}$ '39	11.15518 AU				
morning rise	-2461 Nov 17 j 22:09	21° $\overline{42}$ '33		conjunction	-2454 Jan 08 j 16:04	29° $\overline{27}$ '38'23	0°-36'-57
retrograde	-2460 Feb 26 j 13:15	28° $\overline{43}$ '20		minimum elong	-2454 Jan 08 j 16:03	29° $\overline{27}$ '38'23	0°37'02
opposition	-2460 May 07 j 10:09	25° $\overline{42}$ '50	2°12'18	max. Earth dist.	-2454 Jan 08 j 06:04	29° $\overline{27}$ '35'17	10.54631 AU
min. Earth dist.	-2460 May 07 j 22:00	25° $\overline{41}$ '39	9.13379 AU		-2454 Jan 11 j 13:34	0° $\overline{28}$	
direct	-2460 Jul 17 j 12:00	22° $\overline{40}$ '24		morning rise	-2454 Jan 25 j 19:29	1° $\overline{28}$ '45'26	
evening set	-2460 Oct 26 j 03:35	28° $\overline{45}$ '58		retrograde	-2454 May 11 j 13:51	9° $\overline{28}$ '33'33	
	-2460 Nov 03 j 22:10	0° $\overline{46}$		opposition	-2454 Jul 20 j 18:05	6° $\overline{28}$ '07'36	-1°-4'-29
				min. Earth dist.	-2454 Jul 21 j 01:13	6° $\overline{28}$ '06'12	8.47502 AU
conjunction	-2460 Nov 11 j 14:32	0° $\overline{45}$ '04	1°38'57	direct	-2454 Sep 26 j 15:36	2° $\overline{28}$ '46'09	
minimum elong	-2460 Nov 11 j 14:35	0° $\overline{45}$ '04	1°38'55	evening set	-2453 Jan 04 j 14:31	10° $\overline{28}$ '16'30	
max. Earth dist.	-2460 Nov 11 j 00:18	0° $\overline{44}$ '53	11.10379 AU				
morning rise	-2460 Nov 28 j 02:05	2° $\overline{44}$ '22		conjunction	-2453 Jan 21 j 16:53	12° $\overline{28}$ '25'02	-1°-6'-18
retrograde	-2459 Mar 09 j 10:04	9° $\overline{44}$ '50'15		minimum elong	-2453 Jan 21 j 16:50	12° $\overline{28}$ '25'01	1°06'23
opposition	-2459 May 19 j 10:09	6° $\overline{43}$ '31'42	1°47'47	max. Earth dist.	-2453 Jan 21 j 10:14	12° $\overline{28}$ '22'56	10.40549 AU
min. Earth dist.	-2459 May 19 j 22:46	6° $\overline{42}$ '29'23	9.06948 AU	morning rise	-2453 Feb 08 j 00:01	14° $\overline{28}$ '35'09	
direct	-2459 Jul 29 j 03:08	3° $\overline{41}$ '13'16		retrograde	-2453 May 25 j 14:31	22° $\overline{28}$ '35'11	
evening set	-2459 Nov 06 j 07:46	10° $\overline{41}$ '11'35		opposition	-2453 Aug 03 j 07:14	19° $\overline{28}$ '07'41	-1°-39'-44
				min. Earth dist.	-2453 Aug 03 j 11:20	19° $\overline{28}$ '06'53	8.33620 AU
conjunction	-2459 Nov 22 j 20:12	12° $\overline{41}$ '08'00	1°16'51	direct	-2453 Oct 09 j 14:22	15° $\overline{28}$ '45'08	
minimum elong	-2459 Nov 22 j 20:14	12° $\overline{41}$ '08'01	1°16'49	evening set	-2452 Jan 18 j 00:29	23° $\overline{28}$ '25'38	
max. Earth dist.	-2459 Nov 22 j 06:09	12° $\overline{41}$ '03'51	11.02816 AU				
morning rise	-2459 Dec 09 j 10:00	14° $\overline{40}$ '04'54		conjunction	-2452 Feb 04 j 06:25	25° $\overline{28}$ '37'09	-1°-33'-4
	-2459 Dec 17 j 10:42	15° $\overline{40}$		minimum elong	-2452 Feb 04 j 06:22	25° $\overline{28}$ '37'08	1°33'08
retrograde	-2458 Mar 21 j 12:27	21° $\overline{40}$ '12'33		max. Earth dist.	-2452 Feb 04 j 02:58	25° $\overline{28}$ '36'02	10.26955 AU
opposition	-2458 May 31 j 14:13	17° $\overline{39}$ '52'43	1°18'41	morning rise	-2452 Feb 21 j 17:18	27° $\overline{28}$ '50'18	
min. Earth dist.	-2458 Jun 01 j 02:14	17° $\overline{39}$ '50'29	8.98200 AU		-2452 Mar 10 j 12:08	0° $\overline{29}$	
	-2458 Jul 17 j 17:42	15° $\overline{38}$		retrograde	-2452 Jun 08 j 00:12	6° $\overline{29}$ '01'44	
direct	-2458 Aug 09 j 20:18	14° $\overline{38}$ '34'06		opposition	-2452 Aug 16 j 03:58	2° $\overline{29}$ '32'54	-2°-10'-48
	-2458 Sep 01 j 14:31	15° $\overline{38}$		min. Earth dist.	-2452 Aug 16 j 05:00	2° $\overline{29}$ '32'41	8.20616 AU
evening set	-2458 Nov 17 j 16:24	21° $\overline{38}$ '35'44			-2452 Sep 21 j 04:24	30° $\overline{29}$ ' $\overline{28}$	
				direct	-2452 Oct 21 j 22:21	29° $\overline{29}$ '09'08	
conjunction	-2458 Dec 04 j 06:55	23° $\overline{38}$ '33'56	0°51'20		-2452 Nov 21 j 04:43	0° $\overline{29}$	
minimum elong	-2458 Dec 04 j 06:57	23° $\overline{38}$ '33'56	0°51'18	evening set	-2451 Jan 30 j 23:20	7° $\overline{29}$ '00'07	
max. Earth dist.	-2458 Dec 03 j 17:51	23° $\overline{38}$ '30'02	10.93067 AU				
morning rise	-2458 Dec 20 j 23:29	25° $\overline{38}$ '32'51		conjunction	-2451 Feb 17 j 08:52	9° $\overline{29}$ '14'31	-1°-55'-25
	-2457 Feb 01 j 11:56	0° $\overline{39}$		minimum elong	-2451 Feb 17 j 08:48	9° $\overline{29}$ '14'30	1°55'29
retrograde	-2457 Apr 03 j 00:25	2° $\overline{39}$ '48'48		max. Earth dist.	-2451 Feb 17 j 08:34	9° $\overline{29}$ '14'25	10.14599 AU
	-2457 Jun 05 j 17:01	30° $\overline{39}$		morning rise	-2451 Mar 06 j 23:25	11° $\overline{29}$ '30'33	
opposition	-2457 Jun 12 j 23:22	29° $\overline{39}$ '27'33	0°45'46		-2451 Apr 05 j 02:28	15° $\overline{29}$	
min. Earth dist.	-2457 Jun 13 j 10:14	29° $\overline{39}$ '25'31	8.87433 AU	retrograde	-2451 Jun 22 j 17:31	19° $\overline{29}$ '51'59	
direct	-2457 Aug 21 j 16:51	26° $\overline{39}$ '08'32		opposition	-2451 Aug 30 j 07:34	16° $\overline{29}$ '22'03	-2°-35'-20
	-2457 Oct 30 j 21:46	0° $\overline{40}$		min. Earth dist.	-2451 Aug 30 j 05:51	16° $\overline{29}$ '22'24	8.09233 AU
evening set	-2457 Nov 29 j 07:46	3° $\overline{40}$ '15'05			-2451 Sep 16 j 15:35	15° $\overline{29}$	
max. Earth dist.	-2457 Dec 15 j 11:49	5° $\overline{40}$ '11'34	10.81477 AU	direct	-2451 Nov 04 j 15:12	12° $\overline{29}$ '57'02	
					-2451 Dec 22 j 03:29	15° $\overline{29}$	
conjunction	-2457 Dec 16 j 00:42	5° $\overline{40}$ '15'27	0°23'12	evening set	-2450 Feb 14 j 10:27	20° $\overline{29}$ '58'06	
minimum elong	-2457 Dec 16 j 00:43	5° $\overline{40}$ '15'27	0°23'09				
morning rise	-2456 Jan 01 j 20:39	7° $\overline{40}$ '16'49		conjunction	-2450 Mar 03 j 23:46	23° $\overline{29}$ '15'10	-2°-11'-35
retrograde	-2456 Apr 14 j 20:11	14° $\overline{40}$ '42'24		minimum elong	-2450 Mar 03 j 23:43	23° $\overline{29}$ '15'09	2°11'38
opposition	-2456 Jun 24 j 14:28	11° $\overline{39}$ '19'38	0°10'01	max. Earth dist.	-2450 Mar 04 j 02:34	23° $\overline{29}$ '16'05	10.04229 AU
min. Earth dist.	-2456 Jun 25 j 00:40	11° $\overline{39}$ '17'42	8.75047 AU	morning rise	-2450 Mar 21 j 17:55	25° $\overline{29}$ '33'47	
direct	-2456 Sep 01 j 16:15	8° $\overline{38}$ '00'00			-2450 Apr 28 j 06:12	0° $\overline{39}$	
desc. node	-2456 Oct 05 j 04:07	8° $\overline{38}$ '57'26		retrograde	-2450 Jul 07 j 16:31	4° $\overline{39}$ '02'50	
evening set	-2456 Dec 10 j 07:30	15° $\overline{38}$ '13'06		opposition	-2450 Sep 13 j 16:47	0° $\overline{39}$ '32'08	-2°-51'-9
				min. Earth dist.	-2450 Sep 13 j 12:49	0° $\overline{39}$ '32'57	8.00162 AU
conjunction	-2456 Dec 27 j 03:14	17° $\overline{38}$ '15'57	0°-6'-41		-2450 Sep 20 j 05:40	30° $\overline{39}$	
minimum elong	-2456 Dec 27 j 03:13	17° $\overline{38}$ '15'57	0°06'46	direct	-2450 Nov 18 j 17:10	27° $\overline{39}$ '05'50	
behind sun begin	-2456 Dec 26 j 20:38	17° $\overline{38}$ '13'57			-2449 Jan 14 j 16:48	0° $\overline{40}$	
behind sun end	-2456 Dec 27 j 09:48	17° $\overline{38}$ '17'57		evening set	-2449 Mar 01 j 08:18	5° $\overline{40}$ '15'47	
max. Earth dist.	-2456 Dec 26 j 15:01	17° $\overline{38}$ '12'13	10.68487 AU				
morning rise	-2455 Jan 13 j 02:54	19° $\overline{38}$ '20'03		conjunction	-2449 Mar 19 j 01:32	7° $\overline{40}$ '35'09	-2°-20'-2
retrograde	-2455 Apr 27 j 23:23	26° $\overline{38}$ '56'29		minimum elong	-2449 Mar 19 j 01:32	7° $\overline{40}$ '35'09	2°20'04
opposition	-2455 Jul 07 j 12:31	23° $\overline{38}$ '32'08	0°-27'-15	max. Earth dist.	-2449 Mar 19 j 07:26	7° $\overline{40}$ '37'06	9.96475 AU
min. Earth dist.	-2455 Jul 07 j 21:41	23° $\overline{38}$ '30'22	8.61538 AU	morning rise	-2449 Apr 05 j 23:05	9° $\overline{40}$ '55'53	
direct	-2455 Sep 14 j 00:15	20° $\overline{38}$ '11'40		retrograde	-2449 Jul 22 j 18:06	18° $\overline{40}$ '29'19	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 38

Attention, astronomical year style is used: The year -2449 in astronomical counting style is the year 2450 BCE in historical counting style.

opposition	-2449 Sep 28 j 05:51	14° <del>✕</del> 58'12	-2°-56'-32	conjunction	-2443 Jun 17 j 09:28	4° <del>Π</del> 16'02	0°-25'-33
min. Earth dist.	-2449 Sep 28 j 00:01	14° <del>✕</del> 59'25	7.93922 AU	minimum elong	-2443 Jun 17 j 09:29	4° <del>Π</del> 16'02	0°25'30
direct	-2449 Dec 03 j 03:28	11° <del>✕</del> 30'43		max. Earth dist.	-2443 Jun 17 j 23:41	4° <del>Π</del> 20'35	10.17660 AU
evening set	-2448 Mar 15 j 14:28	19° <del>✕</del> 47'38		morning rise	-2443 Jul 05 j 08:56	6° <del>Π</del> 33'11	
				retrograde	-2443 Oct 15 j 12:44	14° <del>Π</del> 25'06	
conjunction	-2448 Apr 02 j 11:34	22° <del>✕</del> 08'48	-2°-19'-45	opposition	-2443 Dec 21 j 02:24	10° <del>Π</del> 59'46	0°-11'-17
minimum elong	-2448 Apr 02 j 11:35	22° <del>✕</del> 08'48	2°19'46	min. Earth dist.	-2443 Dec 20 j 16:26	11° <del>Π</del> 01'48	8.23874 AU
max. Earth dist.	-2448 Apr 02 j 20:20	22° <del>✕</del> 11'42	9.91761 AU	direct	-2442 Feb 27 j 10:37	7° <del>Π</del> 30'39	
morning rise	-2448 Apr 20 j 12:01	24° <del>✕</del> 31'01		asc. node	-2442 Apr 03 j 17:44	8° <del>Π</del> 35'04	
	-2448 Jun 06 j 20:58	0° <del>Υ</del>		evening set	-2442 Jun 13 j 18:24	15° <del>Π</del> 33'46	
retrograde	-2448 Aug 05 j 19:25	3° <del>Υ</del> 05'11					
	-2448 Oct 06 j 16:11	30° <del>℞</del>		conjunction	-2442 Jul 01 j 17:55	17° <del>Π</del> 49'01	0°07'48
opposition	-2448 Oct 11 j 20:33	29° <del>✕</del> 34'07	-2°-50'-36	minimum elong	-2442 Jul 01 j 17:55	17° <del>Π</del> 49'01	0°07'53
min. Earth dist.	-2448 Oct 11 j 12:56	29° <del>✕</del> 35'43	7.90831 AU	behind sun begin	-2442 Jul 01 j 11:24	17° <del>Π</del> 46'59	
direct	-2448 Dec 16 j 20:10	26° <del>✕</del> 05'39		behind sun end	-2442 Jul 02 j 00:26	17° <del>Π</del> 51'03	
	-2447 Feb 21 j 21:18	0° <del>Υ</del>		max. Earth dist.	-2442 Jul 02 j 06:01	17° <del>Π</del> 52'49	10.30602 AU
evening set	-2447 Mar 31 j 01:49	4° <del>Υ</del> 27'06		morning rise	-2442 Jul 19 j 13:18	20° <del>Π</del> 02'56	
				retrograde	-2442 Oct 28 j 15:14	27° <del>Π</del> 42'37	
conjunction	-2447 Apr 18 j 02:25	6° <del>Υ</del> 49'26	-2°-10'-29	opposition	-2441 Jan 03 j 12:50	24° <del>Π</del> 19'00	0°29'23
minimum elong	-2447 Apr 18 j 02:28	6° <del>Υ</del> 49'27	2°10'29	min. Earth dist.	-2441 Jan 03 j 04:18	24° <del>Π</del> 20'43	8.37423 AU
max. Earth dist.	-2447 Apr 18 j 13:41	6° <del>Υ</del> 53'10	9.90350 AU	direct	-2441 Mar 13 j 14:16	20° <del>Π</del> 50'36	
morning rise	-2447 May 06 j 05:07	9° <del>Υ</del> 12'24		evening set	-2441 Jun 27 j 18:36	28° <del>Π</del> 44'45	
retrograde	-2447 Aug 20 j 17:40	17° <del>Υ</del> 43'39			-2441 Jul 07 j 23:25	0° <del>☾</del>	
opposition	-2447 Oct 26 j 11:01	14° <del>Υ</del> 13'06	-2°-33'-32				
min. Earth dist.	-2447 Oct 26 j 01:38	14° <del>Υ</del> 15'03	7.91110 AU	conjunction	-2441 Jul 15 j 13:41	0° <del>☾</del> 56'39	0°39'45
direct	-2447 Dec 31 j 16:05	10° <del>Υ</del> 43'54		minimum elong	-2441 Jul 15 j 13:39	0° <del>☾</del> 56'38	0°39'50
evening set	-2446 Apr 15 j 14:58	19° <del>Υ</del> 07'02		max. Earth dist.	-2441 Jul 15 j 23:13	0° <del>☾</del> 59'36	10.44582 AU
				morning rise	-2441 Aug 02 j 04:04	3° <del>☾</del> 07'02	
conjunction	-2446 May 03 j 18:19	21° <del>Υ</del> 29'43	-1°-52'-47	retrograde	-2441 Nov 10 j 09:36	10° <del>☾</del> 35'15	
minimum elong	-2446 May 03 j 18:23	21° <del>Υ</del> 29'45	1°52'46	opposition	-2440 Jan 16 j 15:38	7° <del>☾</del> 13'14	1°07'13
max. Earth dist.	-2446 May 04 j 07:44	21° <del>Υ</del> 34'09	9.92420 AU	min. Earth dist.	-2440 Jan 16 j 08:13	7° <del>☾</del> 14'42	8.51656 AU
morning rise	-2446 May 21 j 22:17	23° <del>Υ</del> 52'35		direct	-2440 Mar 26 j 08:40	3° <del>☾</del> 45'50	
	-2446 Jul 15 j 19:00	0° <del>♄</del>		evening set	-2440 Jul 10 j 06:33	11° <del>☾</del> 30'34	
retrograde	-2446 Sep 04 j 10:46	2° <del>♄</del> 17'24					
	-2446 Oct 26 j 05:14	30° <del>℞</del> <del>Υ</del>		conjunction	-2440 Jul 27 j 20:31	13° <del>☾</del> 39'00	1°08'52
opposition	-2446 Nov 09 j 23:03	28° <del>Υ</del> 47'44	-2°-6'-37	minimum elong	-2440 Jul 27 j 20:28	13° <del>☾</del> 38'59	1°08'56
min. Earth dist.	-2446 Nov 09 j 12:12	28° <del>Υ</del> 49'59	7.94857 AU	max. Earth dist.	-2440 Jul 28 j 03:55	13° <del>☾</del> 41'16	10.58846 AU
direct	-2445 Jan 15 j 12:40	25° <del>Υ</del> 18'06		morning rise	-2440 Aug 14 j 05:24	15° <del>☾</del> 45'52	
	-2445 Mar 31 j 19:02	0° <del>♄</del>		retrograde	-2440 Nov 21 j 19:22	23° <del>☾</del> 03'45	
evening set	-2445 May 01 j 02:30	3° <del>♄</del> 39'52		opposition	-2439 Jan 28 j 10:59	19° <del>☾</del> 43'15	1°40'34
				min. Earth dist.	-2439 Jan 28 j 05:04	19° <del>☾</del> 44'24	8.65835 AU
conjunction	-2445 May 19 j 07:18	6° <del>♄</del> 01'59	-1°-28'-2	direct	-2439 Apr 08 j 17:48	16° <del>☾</del> 16'59	
minimum elong	-2445 May 19 j 07:22	6° <del>♄</del> 02'00	1°28'00	evening set	-2439 Jul 23 j 06:49	23° <del>☾</del> 52'28	
max. Earth dist.	-2445 May 19 j 22:09	6° <del>♄</del> 06'51	9.97924 AU				
morning rise	-2445 Jun 06 j 11:12	8° <del>♄</del> 23'47		conjunction	-2439 Aug 09 j 15:25	25° <del>☾</del> 57'32	1°33'58
	-2445 Aug 07 j 04:59	15° <del>♄</del>		minimum elong	-2439 Aug 09 j 15:22	25° <del>☾</del> 57'31	1°34'01
retrograde	-2445 Sep 18 j 21:00	16° <del>♄</del> 39'13		max. Earth dist.	-2439 Aug 09 j 20:51	25° <del>☾</del> 59'10	10.72696 AU
	-2445 Nov 01 j 03:25	15° <del>℞</del> <del>♄</del>		morning rise	-2439 Aug 26 j 18:43	28° <del>☾</del> 01'03	
opposition	-2445 Nov 24 j 06:32	13° <del>♄</del> 10'47	-1°-32'-5		-2439 Sep 13 j 01:50	0° <del>♈</del>	
min. Earth dist.	-2445 Nov 23 j 19:02	13° <del>♄</del> 13'10	8.01894 AU	retrograde	-2439 Dec 03 j 21:31	5° <del>♈</del> 10'03	
direct	-2444 Jan 30 j 07:56	9° <del>♄</del> 41'01		opposition	-2438 Feb 09 j 23:33	1° <del>♈</del> 50'54	2°08'18
	-2444 Apr 20 j 20:06	15° <del>♄</del>		min. Earth dist.	-2438 Feb 09 j 20:05	1° <del>♈</del> 51'34	8.79302 AU
evening set	-2444 May 15 j 08:45	17° <del>♄</del> 58'38			-2438 Mar 07 j 11:47	30° <del>℞</del> <del>☾</del>	
				direct	-2438 Apr 21 j 18:36	28° <del>☾</del> 25'51	
conjunction	-2444 Jun 02 j 13:24	20° <del>♄</del> 19'13	0°-58'-12		-2438 Jun 05 j 08:46	0° <del>♈</del>	
minimum elong	-2444 Jun 02 j 13:27	20° <del>♄</del> 19'14	0°58'10	evening set	-2438 Aug 04 j 20:09	5° <del>♈</del> 52'39	
max. Earth dist.	-2444 Jun 03 j 04:36	20° <del>♄</del> 24'09	10.06527 AU				
morning rise	-2444 Jun 20 j 15:45	22° <del>♄</del> 39'03		conjunction	-2438 Aug 21 j 23:21	7° <del>♈</del> 54'37	1°54'17
	-2444 Sep 04 j 01:25	0° <del>♈</del>		minimum elong	-2438 Aug 21 j 23:18	7° <del>♈</del> 54'36	1°54'19
retrograde	-2444 Oct 01 j 22:18	0° <del>♈</del> 43'12		max. Earth dist.	-2438 Aug 22 j 01:55	7° <del>♈</del> 55'23	10.85525 AU
	-2444 Oct 29 j 21:43	30° <del>℞</del> <del>♄</del>		morning rise	-2438 Sep 07 j 21:28	9° <del>♈</del> 55'07	
opposition	-2444 Dec 07 j 08:05	27° <del>♄</del> 16'14	0°-52'-40		-2438 Oct 28 j 07:33	15° <del>♈</del>	
min. Earth dist.	-2444 Dec 06 j 20:59	27° <del>♄</del> 18'31	8.11781 AU	retrograde	-2438 Dec 15 j 17:36	16° <del>♈</del> 56'50	
direct	-2443 Feb 12 j 23:37	23° <del>♄</del> 46'38			-2437 Feb 03 j 20:51	15° <del>℞</del> <del>♈</del>	
	-2443 May 14 j 04:32	0° <del>♈</del>		opposition	-2437 Feb 22 j 06:34	13° <del>♈</del> 38'52	2°29'46
evening set	-2443 May 30 j 06:36	1° <del>♈</del> 57'48		min. Earth dist.	-2437 Feb 22 j 06:01	13° <del>♈</del> 38'58	8.91489 AU
				direct	-2437 May 04 j 10:17	10° <del>♈</del> 15'06	

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 39

Attention, astronomical year style is used: The year -2437 in astronomical counting style is the year 2438 BCE in historical counting style.

	-2437 Jul 24 j 18:10	15°♈		conjunction	-2431 Nov 07 j 02:05	26°♊13'03	1°47'24
evening set	-2437 Aug 16 j 23:24	17°♈33'57		minimum elong	-2431 Nov 07 j 02:08	26°♊13'03	1°47'22
				max. Earth dist.	-2431 Nov 06 j 14:19	26°♊09'36	11.15528 AU
conjunction	-2437 Sep 02 j 21:34	19°♈33'14	2°09'21	morning rise	-2431 Nov 23 j 12:33	28°♊07'30	
minimum elong	-2437 Sep 02 j 21:32	19°♈33'13	2°09'23		-2431 Dec 10 j 10:49	0°♈	
max. Earth dist.	-2437 Sep 02 j 20:32	19°♈32'55	10.96830 AU	retrograde	-2430 Mar 04 j 13:01	5°♈04'49	
morning rise	-2437 Sep 19 j 15:17	21°♈31'12		opposition	-2430 May 14 j 11:08	1°♈47'21	1°59'05
retrograde	-2437 Dec 27 j 07:20	28°♈27'19		min. Earth dist.	-2430 May 14 j 21:49	1°♈45'24	9.12875 AU
opposition	-2436 Mar 05 j 08:48	25°♈10'16	2°44'37		-2430 Jun 09 j 07:40	30°♈♊	
min. Earth dist.	-2436 Mar 05 j 10:27	25°♈09'57	9.01928 AU	direct	-2430 Jul 24 j 09:04	28°♊29'37	
direct	-2436 May 15 j 19:54	21°♈47'47			-2430 Sep 05 j 23:02	0°♈	
evening set	-2436 Aug 27 j 18:04	28°♈59'40		evening set	-2430 Nov 01 j 17:48	5°♈25'51	
	-2436 Sep 05 j 10:23	0°♈					
				conjunction	-2430 Nov 18 j 05:23	7°♈21'18	1°27'02
conjunction	-2436 Sep 13 j 12:03	0°♈56'44	2°18'57	minimum elong	-2430 Nov 18 j 05:26	7°♈21'18	1°27'00
minimum elong	-2436 Sep 13 j 12:02	0°♈56'44	2°18'59	max. Earth dist.	-2430 Nov 17 j 16:21	7°♈17'28	11.09407 AU
max. Earth dist.	-2436 Sep 13 j 08:21	0°♈55'39	11.06200 AU	morning rise	-2430 Dec 04 j 17:50	9°♈17'05	
morning rise	-2436 Sep 30 j 02:10	2°♈52'42			-2429 Feb 03 j 07:43	15°♈	
retrograde	-2435 Jan 06 j 20:11	9°♈44'54		retrograde	-2429 Mar 16 j 11:51	16°♈20'16	
opposition	-2435 Mar 17 j 07:12	6°♈28'30	2°52'46		-2429 Apr 27 j 18:39	15°♈♈	
min. Earth dist.	-2435 Mar 17 j 10:28	6°♈27'54	9.10233 AU	opposition	-2429 May 26 j 12:44	13°♈01'44	1°32'00
direct	-2435 May 27 j 23:50	3°♈07'15		min. Earth dist.	-2429 May 27 j 00:28	12°♈59'34	9.05439 AU
evening set	-2435 Sep 08 j 05:37	10°♈13'16		direct	-2429 Aug 04 j 23:02	9°♈43'56	
					-2429 Oct 28 j 19:20	15°♈	
conjunction	-2435 Sep 24 j 20:24	12°♈08'42	2°23'03	evening set	-2429 Nov 12 j 23:39	16°♈42'39	
minimum elong	-2435 Sep 24 j 20:23	12°♈08'42	2°23'05				
max. Earth dist.	-2435 Sep 24 j 15:03	12°♈07'08	11.13296 AU	conjunction	-2429 Nov 29 j 12:53	18°♈39'38	1°03'02
morning rise	-2435 Oct 11 j 07:43	14°♈03'12		minimum elong	-2429 Nov 29 j 12:55	18°♈39'38	1°02'59
retrograde	-2434 Jan 18 j 06:42	20°♈53'09		max. Earth dist.	-2429 Nov 28 j 22:35	18°♈35'23	11.00814 AU
opposition	-2434 Mar 29 j 03:20	17°♈37'09	2°54'16	morning rise	-2429 Dec 16 j 04:04	20°♈37'14	
min. Earth dist.	-2434 Mar 29 j 08:30	17°♈36'12	9.16111 AU	retrograde	-2428 Mar 27 j 18:08	27°♈47'53	
direct	-2434 Jun 08 j 20:16	14°♈17'00		opposition	-2428 Jun 06 j 18:43	24°♈28'02	1°00'48
evening set	-2434 Sep 19 j 11:51	21°♈18'21		min. Earth dist.	-2428 Jun 07 j 07:11	24°♈25'43	8.95625 AU
				direct	-2428 Aug 15 j 17:52	21°♈09'54	
conjunction	-2434 Oct 06 j 00:10	23°♈12'41	2°21'42	evening set	-2428 Nov 23 j 11:05	28°♈12'48	
minimum elong	-2434 Oct 06 j 00:10	23°♈12'41	2°21'43		-2428 Dec 08 j 11:27	0°♈♈	
max. Earth dist.	-2434 Oct 05 j 16:46	23°♈10'32	11.17875 AU				
morning rise	-2434 Oct 22 j 09:46	25°♈06'19		conjunction	-2428 Dec 10 j 02:38	0°♈11'46	0°36'03
	-2434 Dec 11 j 08:06	0°♈		minimum elong	-2428 Dec 10 j 02:39	0°♈11'46	0°36'00
retrograde	-2433 Jan 29 j 17:02	1°♈55'41		max. Earth dist.	-2428 Dec 09 j 12:34	0°♈07'33	10.89964 AU
	-2433 Mar 22 j 02:13	30°♈♈		morning rise	-2428 Dec 26 j 20:54	2°♈11'37	
opposition	-2433 Apr 09 j 22:22	28°♈39'47	2°49'21	retrograde	-2427 Apr 09 j 08:03	9°♈31'19	
min. Earth dist.	-2433 Apr 10 j 06:05	28°♈38'22	9.19377 AU	opposition	-2427 Jun 19 j 06:03	6°♈09'57	0°26'20
direct	-2433 Jun 20 j 13:54	25°♈20'33		min. Earth dist.	-2427 Jun 19 j 17:53	6°♈07'44	8.83741 AU
	-2433 Sep 09 j 09:10	0°♈		direct	-2427 Aug 27 j 15:52	2°♈51'15	
evening set	-2433 Sep 30 j 14:27	2°♈18'32		evening set	-2427 Dec 05 j 06:00	10°♈00'02	
				max. Earth dist.	-2427 Dec 21 j 11:30	11°♈57'29	10.77255 AU
conjunction	-2433 Oct 17 j 01:10	4°♈12'20	2°15'08				
minimum elong	-2433 Oct 17 j 01:11	4°♈12'21	2°15'07	conjunction	-2427 Dec 22 j 00:20	12°♈01'23	0°07'00
max. Earth dist.	-2433 Oct 16 j 15:01	4°♈09'23	11.19806 AU	minimum elong	-2427 Dec 22 j 00:20	12°♈01'23	0°06'56
morning rise	-2433 Nov 02 j 10:15	6°♈05'42		behind sun begin	-2427 Dec 21 j 17:49	11°♈59'25	
retrograde	-2432 Feb 10 j 03:24	12°♈56'05		behind sun end	-2427 Dec 22 j 06:52	12°♈03'21	
opposition	-2432 Apr 20 j 17:13	9°♈39'58	2°38'15	morning rise	-2426 Jan 07 j 21:58	14°♈03'50	
min. Earth dist.	-2432 Apr 21 j 02:45	9°♈38'13	9.19937 AU	desc. node	-2426 Mar 19 j 11:27	20°♈38'11	
direct	-2432 Jul 01 j 04:36	6°♈21'28		retrograde	-2426 Apr 22 j 07:52	21°♈34'00	
evening set	-2432 Oct 10 j 15:00	13°♈17'25		opposition	-2426 Jul 02 j 00:06	18°♈10'58	0°-10'-16
				min. Earth dist.	-2426 Jul 02 j 10:16	18°♈09'02	8.70291 AU
conjunction	-2432 Oct 27 j 01:13	15°♈11'15	2°03'35	direct	-2426 Sep 08 j 19:59	14°♈51'27	
minimum elong	-2432 Oct 27 j 01:16	15°♈11'15	2°03'33	evening set	-2426 Dec 17 j 10:10	22°♈07'38	
max. Earth dist.	-2432 Oct 26 j 13:45	15°♈07'55	11.19026 AU				
morning rise	-2432 Nov 12 j 10:39	17°♈04'54		conjunction	-2425 Jan 03 j 07:30	24°♈11'41	0°-23'-12
retrograde	-2431 Feb 20 j 17:42	23°♈57'58		minimum elong	-2425 Jan 03 j 07:29	24°♈11'40	0°23'17
opposition	-2431 May 02 j 13:03	20°♈41'17	2°21'20	max. Earth dist.	-2425 Jan 02 j 19:48	24°♈08'05	10.63264 AU
min. Earth dist.	-2431 May 02 j 23:15	20°♈39'26	9.17753 AU	morning rise	-2425 Jan 20 j 08:53	26°♈17'02	
direct	-2431 Jul 12 j 19:42	17°♈23'17			-2425 Feb 22 j 12:16	0°♈	
evening set	-2431 Oct 21 j 15:28	24°♈18'39		retrograde	-2425 May 05 j 18:19	3°♈58'40	
				opposition	-2425 Jul 15 j 01:26	0°♈33'52	0°-47'-36

## Planetary Phenomena of Saturn from -2900 through -2400 (UT), Astrodiens AG 7-Dez-2017 14:41, page 40

Attention, astronomical year style is used: The year -2425 in astronomical counting style is the year 2426 BCE in historical counting style.

min. Earth dist.	-2425 Jul 15 j 09:56	0° $\overline{32}$ '14	8.55900 AU	min. Earth dist.	-2419 Oct 05 j 03:44	23° $\overline{10}$ '23	7.90103 AU
	-2425 Jul 22 j 10:05	30° $\overline{R}$ ' $\overline{27}$		direct	-2419 Dec 10 j 08:59	19° $\overline{10}$ '32'14	
direct	-2425 Sep 21 j 05:22	27° $\overline{27}$ '13'16		evening set	-2418 Mar 24 j 05:59	27° $\overline{10}$ '52'37	
	-2425 Nov 17 j 15:50	0° $\overline{3}$			-2418 Apr 09 j 08:39	0° $\overline{V}$	
evening set	-2425 Dec 30 j 01:24	4° $\overline{3}$ '38'18					
				conjunction	-2418 Apr 11 j 05:06	0° $\overline{V}$ '14'45	-2°-15'-59
conjunction	-2424 Jan 16 j 01:55	6° $\overline{3}$ '45'13	0°-53'-6	minimum elong	-2418 Apr 11 j 05:09	0° $\overline{V}$ '14'46	2°15'59
minimum elong	-2424 Jan 16 j 01:53	6° $\overline{3}$ '45'12	0°53'10	max. Earth dist.	-2418 Apr 11 j 15:37	0° $\overline{V}$ '18'14	9.88731 AU
max. Earth dist.	-2424 Jan 15 j 15:27	6° $\overline{3}$ '41'56	10.48644 AU	morning rise	-2418 Apr 29 j 06:53	2° $\overline{V}$ '37'43	
morning rise	-2424 Feb 02 j 07:13	8° $\overline{3}$ '53'40		retrograde	-2418 Aug 14 j 05:49	11° $\overline{V}$ '11'42	
retrograde	-2424 May 18 j 12:46	16° $\overline{3}$ '47'16		opposition	-2418 Oct 20 j 02:11	7° $\overline{V}$ '40'10	-2°-42'-59
opposition	-2424 Jul 27 j 10:16	13° $\overline{3}$ '20'43	-1°-23'-54	min. Earth dist.	-2418 Oct 19 j 17:17	7° $\overline{V}$ '42'02	7.88681 AU
min. Earth dist.	-2424 Jul 27 j 17:13	13° $\overline{3}$ '19'22	8.41260 AU	direct	-2418 Dec 25 j 03:24	4° $\overline{V}$ '10'37	
direct	-2424 Oct 02 j 23:33	9° $\overline{3}$ '58'49		evening set	-2417 Apr 08 j 19:12	12° $\overline{V}$ '34'05	
evening set	-2423 Jan 11 j 04:40	17° $\overline{3}$ '33'51					
				conjunction	-2417 Apr 26 j 21:24	14° $\overline{V}$ '56'58	-2°-2'-4
conjunction	-2423 Jan 28 j 08:38	19° $\overline{3}$ '43'46	-1°-21'-11	minimum elong	-2417 Apr 26 j 21:28	14° $\overline{V}$ '56'59	2°02'03
minimum elong	-2423 Jan 28 j 08:35	19° $\overline{3}$ '43'45	1°21'16	max. Earth dist.	-2417 Apr 27 j 10:06	15° $\overline{V}$ '01'10	9.89190 AU
max. Earth dist.	-2423 Jan 28 j 00:49	19° $\overline{3}$ '41'17	10.34112 AU	morning rise	-2417 May 15 j 01:04	17° $\overline{V}$ '20'15	
morning rise	-2423 Feb 14 j 17:47	21° $\overline{3}$ '55'20		retrograde	-2417 Aug 29 j 02:09	25° $\overline{V}$ '49'14	
	-2423 May 28 j 14:28	0° $\approx$		opposition	-2417 Nov 03 j 16:03	22° $\overline{V}$ '18'26	-2°-20'-23
retrograde	-2423 Jun 01 j 16:13	0° $\approx$ '00'51		min. Earth dist.	-2417 Nov 03 j 05:56	22° $\overline{V}$ '20'34	7.90939 AU
	-2423 Jun 05 j 18:17	30° $\overline{R}$ ' $\overline{3}$		direct	-2416 Jan 09 j 00:33	18° $\overline{V}$ '48'20	
opposition	-2423 Aug 10 j 02:56	26° $\overline{3}$ '32'40	-1°-57'-7	evening set	-2416 Apr 23 j 08:10	27° $\overline{V}$ '11'44	
min. Earth dist.	-2423 Aug 10 j 07:40	26° $\overline{3}$ '31'43	8.27111 AU				
direct	-2423 Oct 16 j 03:56	23° $\overline{3}$ '09'22		conjunction	-2416 May 11 j 12:23	29° $\overline{V}$ '34'26	-1°-40'-21
	-2422 Jan 17 j 12:09	0° $\approx$		minimum elong	-2416 May 11 j 12:27	29° $\overline{V}$ '34'28	1°40'20
evening set	-2422 Jan 24 j 20:31	0° $\approx$ '54'57		max. Earth dist.	-2416 May 12 j 02:33	29° $\overline{V}$ '39'06	9.93311 AU
					-2416 May 14 j 18:02	0° $\overline{8}$	
conjunction	-2422 Feb 11 j 04:13	3° $\approx$ '07'55	-1°-45'-45	morning rise	-2416 May 29 j 16:41	1° $\overline{8}$ '57'05	
minimum elong	-2422 Feb 11 j 04:10	3° $\approx$ '07'53	1°45'49	retrograde	-2416 Sep 11 j 15:47	10° $\overline{8}$ '17'49	
max. Earth dist.	-2422 Feb 11 j 00:12	3° $\approx$ '06'37	10.20429 AU	opposition	-2416 Nov 17 j 02:14	6° $\overline{8}$ '48'12	-1°-49'-1
morning rise	-2422 Feb 28 j 17:05	5° $\approx$ '22'32		min. Earth dist.	-2416 Nov 16 j 15:11	6° $\overline{8}$ '50'30	7.96730 AU
retrograde	-2422 Jun 16 j 04:44	13° $\approx$ '39'08		direct	-2415 Jan 22 j 21:58	3° $\overline{8}$ '17'54	
opposition	-2422 Aug 24 j 02:55	10° $\approx$ '09'28	-2°-24'-57	evening set	-2415 May 08 j 17:22	11° $\overline{8}$ '38'18	
min. Earth dist.	-2422 Aug 24 j 04:34	10° $\approx$ '09'08	8.14216 AU				
direct	-2422 Oct 29 j 16:49	6° $\approx$ '44'44		conjunction	-2415 May 26 j 22:15	13° $\overline{8}$ '59'52	-1°-12'-35
evening set	-2421 Feb 08 j 01:19	14° $\approx$ '40'56		minimum elong	-2415 May 26 j 22:18	13° $\overline{8}$ '59'53	1°12'33
	-2421 Feb 10 j 12:53	15° $\approx$		max. Earth dist.	-2415 May 27 j 13:08	14° $\overline{8}$ '04'44	10.00813 AU
					-2415 Jun 03 j 14:47	15° $\overline{8}$	
conjunction	-2421 Feb 25 j 12:56	16° $\approx$ '56'47	-2°-4'-59	morning rise	-2415 Jun 14 j 01:47	16° $\overline{8}$ '20'56	
minimum elong	-2421 Feb 25 j 12:53	16° $\approx$ '56'46	2°05'02	retrograde	-2415 Sep 25 j 20:41	24° $\overline{8}$ '31'02	
max. Earth dist.	-2421 Feb 25 j 13:03	16° $\approx$ '56'50	10.08370 AU	opposition	-2415 Dec 01 j 06:53	21° $\overline{8}$ '02'55	-1°-11'-25
morning rise	-2421 Mar 15 j 05:22	19° $\approx$ '14'14		min. Earth dist.	-2415 Nov 30 j 19:07	21° $\overline{8}$ '05'21	8.05669 AU
retrograde	-2421 Jul 01 j 01:15	27° $\approx$ '40'02		direct	-2414 Feb 06 j 16:39	17° $\overline{8}$ '32'50	
opposition	-2421 Sep 07 j 09:09	24° $\approx$ '09'15	-2°-45'-5	evening set	-2414 May 23 j 19:45	25° $\overline{8}$ '47'42	
min. Earth dist.	-2421 Sep 07 j 07:31	24° $\approx$ '09'35	8.03322 AU				
direct	-2421 Nov 12 j 13:50	20° $\approx$ '43'05		conjunction	-2414 Jun 10 j 23:43	28° $\overline{8}$ '07'16	0°-40'-54
evening set	-2420 Feb 22 j 18:00	28° $\approx$ '49'11		minimum elong	-2414 Jun 10 j 23:46	28° $\overline{8}$ '07'17	0°40'51
	-2420 Mar 02 j 19:43	0° $\overline{10}$		max. Earth dist.	-2414 Jun 11 j 14:47	28° $\overline{8}$ '12'08	10.11182 AU
					-2414 Jun 25 j 15:03	0° $\overline{II}$	
conjunction	-2420 Mar 11 j 09:34	1° $\overline{10}$ '07'38	-2°-17'-11	morning rise	-2414 Jun 29 j 00:58	0° $\overline{II}$ '25'55	
minimum elong	-2420 Mar 11 j 09:33	1° $\overline{10}$ '07'38	2°17'13	retrograde	-2414 Oct 09 j 15:57	8° $\overline{II}$ '24'03	
max. Earth dist.	-2420 Mar 11 j 13:40	1° $\overline{10}$ '09'00	9.98671 AU	opposition	-2414 Dec 15 j 04:52	4° $\overline{II}$ '57'42	0°-30'-31
morning rise	-2420 Mar 29 j 05:27	3° $\overline{10}$ '27'32		min. Earth dist.	-2414 Dec 14 j 17:00	5° $\overline{II}$ '00'08	8.17163 AU
retrograde	-2420 Jul 15 j 02:16	11° $\overline{10}$ '59'45		direct	-2413 Feb 21 j 06:18	1° $\overline{II}$ '28'09	
opposition	-2420 Sep 20 j 20:28	8° $\overline{10}$ '28'14	-2°-55'-32	evening set	-2413 Jun 07 j 12:54	9° $\overline{II}$ '35'37	
min. Earth dist.	-2420 Sep 20 j 15:42	8° $\overline{10}$ '29'13	7.95101 AU				
direct	-2420 Nov 25 j 19:44	5° $\overline{10}$ '00'45		conjunction	-2413 Jun 25 j 14:18	11° $\overline{II}$ '52'26	0°-7'-37
evening set	-2419 Mar 08 j 20:25	13° $\overline{10}$ '15'10		minimum elong	-2413 Jun 25 j 14:19	11° $\overline{II}$ '52'27	0°07'33
				behind sun begin	-2413 Jun 25 j 07:42	11° $\overline{II}$ '50'22	
conjunction	-2419 Mar 26 j 15:52	15° $\overline{10}$ '35'46	-2°-21'-4	behind sun end	-2413 Jun 25 j 20:56	11° $\overline{II}$ '54'31	
minimum elong	-2419 Mar 26 j 15:53	15° $\overline{10}$ '35'46	2°21'06	max. Earth dist.	-2413 Jun 26 j 04:51	11° $\overline{II}$ '57'03	10.23733 AU
max. Earth dist.	-2419 Mar 26 j 23:30	15° $\overline{10}$ '38'17	9.91968 AU	morning rise	-2413 Jul 13 j 11:47	14° $\overline{II}$ '08'01	
morning rise	-2419 Apr 13 j 14:56	17° $\overline{10}$ '57'34		asc. node	-2413 Sep 19 j 16:19	20° $\overline{II}$ '52'59	
retrograde	-2419 Jul 30 j 04:50	26° $\overline{10}$ '32'39		retrograde	-2413 Oct 23 j 01:36	21° $\overline{II}$ '53'50	
opposition	-2419 Oct 05 j 10:57	23° $\overline{10}$ '00'52	-2°-54'-57	opposition	-2413 Dec 28 j 19:26	18° $\overline{II}$ '29'21	0°10'52

Attention, astronomical year style is used: The year -2413 in astronomical counting style is the year 2414 BCE in historical counting style.

min. Earth dist.	-2413 Dec 28 j 08:28	18° $\Pi$ 31'33	8.30497 AU		-2406 Apr 05 j 01:14	30° $\mathbb{R}$ $\mathbb{Q}$	
direct	-2412 Mar 06 j 12:11	15° $\Pi$ 00'39		direct	-2406 May 22 j 21:46	28° $\mathbb{Q}$ 19'20	
evening set	-2412 Jun 20 j 19:06	22° $\Pi$ 59'25			-2406 Jul 08 j 15:18	0° $\mathbb{M}$	
				evening set	-2406 Sep 03 j 13:01	5° $\mathbb{M}$ 28'08	
conjunction	-2412 Jul 08 j 16:34	25° $\Pi$ 13'01	0°25'19				
minimum elong	-2412 Jul 08 j 16:33	25° $\Pi$ 13'01	0°25'23	conjunction	-2406 Sep 20 j 05:05	7° $\mathbb{M}$ 24'17	2°21'47
max. Earth dist.	-2412 Jul 09 j 05:35	25° $\Pi$ 17'05	10.37712 AU	minimum elong	-2406 Sep 20 j 05:04	7° $\mathbb{M}$ 24'17	2°21'49
morning rise	-2412 Jul 26 j 09:17	27° $\Pi$ 25'08		max. Earth dist.	-2406 Sep 19 j 23:10	7° $\mathbb{M}$ 22'33	11.10716 AU
	-2412 Aug 17 j 08:16	0° $\mathbb{S}$		morning rise	-2406 Oct 06 j 17:35	9° $\mathbb{M}$ 19'25	
retrograde	-2412 Nov 04 j 02:07	4° $\mathbb{S}$ 58'59		retrograde	-2405 Jan 13 j 13:48	16° $\mathbb{M}$ 10'26	
opposition	-2411 Jan 10 j 02:20	1° $\mathbb{S}$ 36'23	0°50'19	opposition	-2405 Mar 24 j 06:20	12° $\mathbb{M}$ 54'38	2°54'17
min. Earth dist.	-2411 Jan 09 j 17:15	1° $\mathbb{S}$ 38'11	8.44904 AU	min. Earth dist.	-2405 Mar 24 j 12:24	12° $\mathbb{M}$ 53'31	9.13919 AU
	-2411 Jan 31 j 03:53	30° $\mathbb{R}$ $\Pi$		direct	-2405 Jun 03 j 21:31	9° $\mathbb{M}$ 34'15	
direct	-2411 Mar 20 j 09:57	28° $\Pi$ 08'44		evening set	-2405 Sep 14 j 21:51	16° $\mathbb{M}$ 37'55	
	-2411 May 07 j 02:38	0° $\mathbb{S}$					
evening set	-2411 Jul 04 j 13:26	5° $\mathbb{S}$ 58'11		conjunction	-2405 Oct 01 j 11:05	18° $\mathbb{M}$ 32'44	2°22'52
				minimum elong	-2405 Oct 01 j 11:05	18° $\mathbb{M}$ 32'44	2°22'53
conjunction	-2411 Jul 22 j 05:57	8° $\mathbb{S}$ 08'19	0°55'58	max. Earth dist.	-2405 Oct 01 j 02:36	18° $\mathbb{M}$ 30'15	11.16076 AU
minimum elong	-2411 Jul 22 j 05:54	8° $\mathbb{S}$ 08'18	0°56'02	morning rise	-2405 Oct 17 j 21:31	20° $\mathbb{M}$ 26'45	
max. Earth dist.	-2411 Jul 22 j 16:15	8° $\mathbb{S}$ 11'30	10.52334 AU	retrograde	-2404 Jan 25 j 00:37	27° $\mathbb{M}$ 16'33	
morning rise	-2411 Aug 08 j 17:22	10° $\mathbb{S}$ 16'52		opposition	-2404 Apr 04 j 02:04	24° $\mathbb{M}$ 00'46	2°52'14
retrograde	-2411 Nov 16 j 15:36	17° $\mathbb{S}$ 39'41		min. Earth dist.	-2404 Apr 04 j 09:32	23° $\mathbb{M}$ 59'24	9.17973 AU
opposition	-2410 Jan 23 j 01:39	14° $\mathbb{S}$ 18'50	1°25'56	direct	-2404 Jun 14 j 19:24	20° $\mathbb{M}$ 41'13	
min. Earth dist.	-2410 Jan 22 j 18:58	14° $\mathbb{S}$ 20'08	8.59595 AU	evening set	-2404 Sep 25 j 02:12	27° $\mathbb{M}$ 40'57	
direct	-2410 Apr 03 j 00:26	10° $\mathbb{S}$ 52'23					
evening set	-2410 Jul 17 j 19:55	18° $\mathbb{S}$ 32'26		conjunction	-2404 Oct 11 j 13:42	29° $\mathbb{M}$ 35'01	2°18'37
				minimum elong	-2404 Oct 11 j 13:43	29° $\mathbb{M}$ 35'01	2°18'37
conjunction	-2410 Aug 04 j 06:55	20° $\mathbb{S}$ 39'03	1°23'03	max. Earth dist.	-2404 Oct 11 j 04:05	29° $\mathbb{M}$ 32'13	11.18785 AU
minimum elong	-2410 Aug 04 j 06:52	20° $\mathbb{S}$ 39'02	1°23'06		-2404 Oct 15 j 03:40	0° $\mathbb{S}$	
max. Earth dist.	-2410 Aug 04 j 13:31	20° $\mathbb{S}$ 41'03	10.66832 AU	morning rise	-2404 Oct 27 j 22:55	1° $\mathbb{S}$ 28'31	
morning rise	-2410 Aug 21 j 12:52	22° $\mathbb{S}$ 44'07		retrograde	-2403 Feb 04 j 12:16	8° $\mathbb{S}$ 18'36	
retrograde	-2410 Nov 28 j 20:33	29° $\mathbb{S}$ 57'14		opposition	-2403 Apr 15 j 20:55	5° $\mathbb{S}$ 02'33	2°43'53
opposition	-2409 Feb 04 j 17:48	26° $\mathbb{S}$ 37'57	1°56'21	min. Earth dist.	-2403 Apr 16 j 05:55	5° $\mathbb{S}$ 00'54	9.19310 AU
min. Earth dist.	-2409 Feb 04 j 13:08	26° $\mathbb{S}$ 38'50	8.73815 AU	direct	-2403 Jun 26 j 11:14	1° $\mathbb{S}$ 43'39	
direct	-2409 Apr 16 j 06:59	23° $\mathbb{S}$ 12'47		evening set	-2403 Oct 06 j 03:48	8° $\mathbb{S}$ 40'44	
	-2409 Jul 24 j 08:34	0° $\mathbb{Q}$					
evening set	-2409 Jul 30 j 14:47	0° $\mathbb{Q}$ 43'43		conjunction	-2403 Oct 22 j 14:19	10° $\mathbb{S}$ 34'36	2°09'16
				minimum elong	-2403 Oct 22 j 14:21	10° $\mathbb{S}$ 34'37	2°09'15
conjunction	-2409 Aug 16 j 20:19	2° $\mathbb{Q}$ 47'03	1°45'38	max. Earth dist.	-2403 Oct 22 j 02:53	10° $\mathbb{S}$ 31'17	11.18775 AU
minimum elong	-2409 Aug 16 j 20:16	2° $\mathbb{Q}$ 47'02	1°45'41	morning rise	-2403 Nov 07 j 23:24	12° $\mathbb{S}$ 28'10	
max. Earth dist.	-2409 Aug 16 j 23:49	2° $\mathbb{Q}$ 48'06	10.80498 AU	retrograde	-2402 Feb 16 j 00:23	19° $\mathbb{S}$ 20'11	
morning rise	-2409 Sep 02 j 20:54	4° $\mathbb{Q}$ 48'54		opposition	-2402 Apr 27 j 16:30	16° $\mathbb{S}$ 03'34	2°29'33
retrograde	-2409 Dec 10 j 20:16	11° $\mathbb{Q}$ 53'54		min. Earth dist.	-2402 Apr 28 j 03:25	16° $\mathbb{S}$ 01'34	9.17912 AU
opposition	-2408 Feb 17 j 03:42	8° $\mathbb{Q}$ 35'53	2°20'44	direct	-2402 Jul 08 j 01:12	12° $\mathbb{S}$ 45'02	
min. Earth dist.	-2408 Feb 17 j 01:02	8° $\mathbb{Q}$ 36'23	8.86874 AU	evening set	-2402 Oct 17 j 04:17	19° $\mathbb{S}$ 40'55	
direct	-2408 Apr 28 j 03:14	5° $\mathbb{Q}$ 12'03					
evening set	-2408 Aug 10 j 22:48	12° $\mathbb{Q}$ 34'31		conjunction	-2402 Nov 02 j 14:35	21° $\mathbb{S}$ 35'08	1°55'07
				minimum elong	-2402 Nov 02 j 14:38	21° $\mathbb{S}$ 35'08	1°55'05
conjunction	-2408 Aug 27 j 23:18	14° $\mathbb{Q}$ 34'58	2°03'08	max. Earth dist.	-2402 Nov 02 j 01:09	21° $\mathbb{S}$ 31'13	11.16070 AU
minimum elong	-2408 Aug 27 j 23:15	14° $\mathbb{Q}$ 34'58	2°03'10	morning rise	-2402 Nov 19 j 00:37	23° $\mathbb{S}$ 29'17	
max. Earth dist.	-2408 Aug 28 j 00:13	14° $\mathbb{Q}$ 35'15	10.92678 AU		-2401 Feb 05 j 00:14	0° $\mathbb{M}$	
	-2408 Aug 31 j 11:33	15° $\mathbb{Q}$		retrograde	-2401 Feb 27 j 16:06	0° $\mathbb{M}$ 24'53	
morning rise	-2408 Sep 13 j 18:57	16° $\mathbb{Q}$ 34'01			-2401 Mar 22 j 15:05	30° $\mathbb{R}$ $\mathbb{S}$	
retrograde	-2408 Dec 21 j 13:42	23° $\mathbb{Q}$ 32'38		opposition	-2401 May 09 j 13:45	27° $\mathbb{S}$ 07'25	2°09'38
opposition	-2407 Feb 28 j 08:17	20° $\mathbb{Q}$ 15'39	2°38'36	min. Earth dist.	-2401 May 10 j 02:01	27° $\mathbb{S}$ 05'10	9.13843 AU
min. Earth dist.	-2407 Feb 28 j 08:22	20° $\mathbb{Q}$ 15'38	8.98161 AU	direct	-2401 Jul 19 j 15:42	23° $\mathbb{S}$ 49'04	
direct	-2407 May 10 j 15:59	16° $\mathbb{Q}$ 53'05			-2401 Oct 21 j 14:11	0° $\mathbb{M}$	
evening set	-2407 Aug 22 j 21:45	24° $\mathbb{Q}$ 08'09		evening set	-2401 Oct 28 j 05:34	0° $\mathbb{M}$ 45'12	
conjunction	-2407 Sep 08 j 17:43	26° $\mathbb{Q}$ 06'11	2°15'13	conjunction	-2401 Nov 13 j 16:39	2° $\mathbb{M}$ 40'16	1°36'34
minimum elong	-2407 Sep 08 j 17:41	26° $\mathbb{Q}$ 06'10	2°15'15	minimum elong	-2401 Nov 13 j 16:41	2° $\mathbb{M}$ 40'17	1°36'32
max. Earth dist.	-2407 Sep 08 j 15:33	26° $\mathbb{Q}$ 05'33	11.02852 AU	max. Earth dist.	-2401 Nov 13 j 02:44	2° $\mathbb{M}$ 36'11	11.10764 AU
morning rise	-2407 Sep 25 j 09:14	28° $\mathbb{Q}$ 02'59		morning rise	-2401 Nov 30 j 04:19	4° $\mathbb{M}$ 35'34	
	-2407 Oct 12 j 21:13	0° $\mathbb{M}$		retrograde	-2400 Mar 10 j 12:08	11° $\mathbb{M}$ 36'23	
retrograde	-2406 Jan 02 j 04:16	4° $\mathbb{M}$ 56'57		opposition	-2400 May 20 j 13:33	8° $\mathbb{M}$ 17'47	1°44'37
opposition	-2406 Mar 12 j 08:42	1° $\mathbb{M}$ 40'44	2°49'47	min. Earth dist.	-2400 May 21 j 01:43	8° $\mathbb{M}$ 15'32	9.07238 AU
min. Earth dist.	-2406 Mar 12 j 12:12	1° $\mathbb{M}$ 40'05	9.07257 AU	direct	-2400 Jul 30 j 06:25	4° $\mathbb{M}$ 59'24	

Attention, astronomical year style is used: The year -2400 in astronomical counting style is the year 2401 BCE in historical counting style.

evening set	-2400 Nov 07 j 09:33	11° $\mathbb{M}$ 57'23	
conjunction	-2400 Nov 23 j 22:13	13° $\mathbb{M}$ 53'49	1°14'06
minimum elong	-2400 Nov 23 j 22:15	13° $\mathbb{M}$ 53'49	1°14'04
max. Earth dist.	-2400 Nov 23 j 08:42	13° $\mathbb{M}$ 49'49	11.03016 AU
	-2400 Dec 03 j 06:21	15° $\mathbb{M}$	
morning rise	-2400 Dec 10 j 12:07	15° $\mathbb{M}$ 50'43	

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Attention, astronomical year style is used: The year -2400 in astronomical counting style is the year 2401 BCE in historical counting style.

retrograde	-2400 Mar 10 j 12:08	11° $\mathbb{M}$ 36'23		minimum elong	-2394 Jan 22 j 20:03	14° $\mathfrak{Z}$ 12'07	1°09'09
opposition	-2400 May 20 j 13:33	8° $\mathbb{M}$ 17'47	1°44'37	max. Earth dist.	-2394 Jan 22 j 13:14	14° $\mathfrak{Z}$ 09'59	10.39843 AU
min. Earth dist.	-2400 May 21 j 01:43	8° $\mathbb{M}$ 15'32	9.07238 AU	morning rise	-2394 Feb 09 j 03:21	16° $\mathfrak{Z}$ 22'22	
direct	-2400 Jul 30 j 06:25	4° $\mathbb{M}$ 59'24		retrograde	-2394 May 26 j 18:45	24° $\mathfrak{Z}$ 22'58	
evening set	-2400 Nov 07 j 09:33	11° $\mathbb{M}$ 57'23		opposition	-2394 Aug 04 j 10:46	20° $\mathfrak{Z}$ 55'21	-1°-42'-57
				min. Earth dist.	-2394 Aug 04 j 14:39	20° $\mathfrak{Z}$ 54'35	8.32852 AU
conjunction	-2400 Nov 23 j 22:13	13° $\mathbb{M}$ 53'49	1°14'06	direct	-2394 Oct 10 j 17:17	17° $\mathfrak{Z}$ 32'41	
minimum elong	-2400 Nov 23 j 22:15	13° $\mathbb{M}$ 53'49	1°14'04	evening set	-2393 Jan 19 j 04:07	25° $\mathfrak{Z}$ 13'45	
max. Earth dist.	-2400 Nov 23 j 08:42	13° $\mathbb{M}$ 49'49	11.03016 AU				
	-2400 Dec 03 j 06:21	15° $\mathbb{M}$		conjunction	-2393 Feb 05 j 10:07	27° $\mathfrak{Z}$ 25'25	-1°-35'-25
morning rise	-2400 Dec 10 j 12:07	15° $\mathbb{M}$ 50'43		minimum elong	-2393 Feb 05 j 10:04	27° $\mathfrak{Z}$ 25'24	1°35'30
retrograde	-2399 Mar 22 j 16:58	22° $\mathbb{M}$ 58'20		max. Earth dist.	-2393 Feb 05 j 05:48	27° $\mathfrak{Z}$ 24'02	10.26127 AU
opposition	-2399 Jun 01 j 17:24	19° $\mathbb{M}$ 38'28	1°15'09	morning rise	-2393 Feb 22 j 21:15	29° $\mathfrak{Z}$ 38'45	
min. Earth dist.	-2399 Jun 02 j 05:03	19° $\mathbb{M}$ 36'18	8.98300 AU		-2393 Feb 25 j 17:18	0° $\approx$	
direct	-2399 Aug 10 j 23:32	16° $\mathbb{M}$ 19'52		retrograde	-2393 Jun 10 j 05:24	7° $\approx$ 50'50	
evening set	-2399 Nov 18 j 18:17	23° $\mathbb{M}$ 21'15		opposition	-2393 Aug 18 j 07:57	4° $\approx$ 21'54	-2°-13'-25
				min. Earth dist.	-2393 Aug 18 j 09:23	4° $\approx$ 21'36	8.19746 AU
conjunction	-2399 Dec 05 j 08:53	25° $\mathbb{M}$ 19'29	0°48'21	direct	-2393 Oct 24 j 00:55	0° $\approx$ 58'00	
minimum elong	-2399 Dec 05 j 08:54	25° $\mathbb{M}$ 19'29	0°48'18	evening set	-2392 Feb 02 j 03:46	8° $\approx$ 49'43	
max. Earth dist.	-2399 Dec 04 j 19:15	25° $\mathbb{M}$ 15'24	10.93074 AU				
morning rise	-2399 Dec 22 j 01:40	27° $\mathbb{M}$ 18'27		conjunction	-2392 Feb 19 j 13:26	11° $\approx$ 04'17	-1°-57'-12
	-2398 Jan 15 j 06:06	0° $\mathfrak{Z}$		minimum elong	-2392 Feb 19 j 13:23	11° $\approx$ 04'16	1°57'16
retrograde	-2398 Apr 04 j 03:18	4° $\mathfrak{Z}$ 34'26		max. Earth dist.	-2392 Feb 19 j 12:08	11° $\approx$ 03'52	10.13702 AU
opposition	-2398 Jun 14 j 02:28	1° $\mathfrak{Z}$ 13'07	0°41'59	morning rise	-2392 Mar 08 j 04:18	13° $\approx$ 20'32	
min. Earth dist.	-2398 Jun 14 j 13:48	1° $\mathfrak{Z}$ 11'00	8.87340 AU		-2392 Mar 21 j 12:06	15° $\approx$	
	-2398 Jun 30 j 18:50	30° $\mathbb{R}$ $\mathbb{M}$		retrograde	-2392 Jun 23 j 23:40	21° $\approx$ 42'39	
direct	-2398 Aug 22 j 18:08	27° $\mathbb{M}$ 54'05		opposition	-2392 Aug 31 j 11:56	18° $\approx$ 12'39	-2°-37'-10
	-2398 Oct 12 j 11:07	0° $\mathfrak{Z}$		min. Earth dist.	-2392 Aug 31 j 10:59	18° $\approx$ 12'50	8.08322 AU
evening set	-2398 Nov 30 j 09:43	5° $\mathfrak{Z}$ 00'33			-2392 Oct 21 j 22:39	15° $\mathbb{R}$ $\approx$	
				direct	-2392 Nov 05 j 18:36	14° $\approx$ 47'29	
conjunction	-2398 Dec 17 j 02:42	7° $\mathfrak{Z}$ 00'57	0°20'04		-2392 Nov 20 j 14:17	15° $\approx$	
minimum elong	-2398 Dec 17 j 02:43	7° $\mathfrak{Z}$ 00'57	0°20'01	evening set	-2391 Feb 15 j 15:41	22° $\approx$ 49'26	
max. Earth dist.	-2398 Dec 16 j 12:58	6° $\mathfrak{Z}$ 56'49	10.81297 AU				
morning rise	-2397 Jan 02 j 22:57	9° $\mathfrak{Z}$ 02'23		conjunction	-2391 Mar 05 j 05:14	25° $\approx$ 06'42	-2°-12'-40
retrograde	-2397 Apr 16 j 21:52	16° $\mathfrak{Z}$ 28'10		minimum elong	-2391 Mar 05 j 05:12	25° $\approx$ 06'41	2°12'43
opposition	-2397 Jun 26 j 17:39	13° $\mathfrak{Z}$ 05'18	0°06'08	max. Earth dist.	-2391 Mar 05 j 07:33	25° $\approx$ 07'28	10.03325 AU
min. Earth dist.	-2397 Jun 27 j 04:36	13° $\mathfrak{Z}$ 03'13	8.74772 AU	morning rise	-2391 Mar 22 j 23:40	27° $\approx$ 25'31	
desc. node	-2397 Aug 28 j 14:58	9° $\mathfrak{Z}$ 47'35			-2391 Apr 12 j 18:34	0° $\mathfrak{H}$	
direct	-2397 Sep 03 j 19:33	9° $\mathfrak{Z}$ 45'35		retrograde	-2391 Jul 08 j 22:20	5° $\mathfrak{H}$ 55'14	
evening set	-2397 Dec 12 j 09:33	16° $\mathfrak{Z}$ 58'44		opposition	-2391 Sep 14 j 21:41	2° $\mathfrak{H}$ 24'30	-2°-52'-2
				min. Earth dist.	-2391 Sep 14 j 18:11	2° $\mathfrak{H}$ 25'14	7.99288 AU
conjunction	-2397 Dec 29 j 05:30	19° $\mathfrak{Z}$ 01'41	0°-9'-49		-2391 Oct 17 j 09:13	30° $\mathbb{R}$ $\approx$	
minimum elong	-2397 Dec 29 j 05:29	19° $\mathfrak{Z}$ 01'40	0°09'54	direct	-2391 Nov 19 j 22:30	28° $\approx$ 58'06	
behind sun begin	-2397 Dec 28 j 23:44	18° $\mathfrak{Z}$ 59'56			-2391 Dec 23 j 00:47	0° $\mathfrak{H}$	
behind sun end	-2397 Dec 29 j 11:15	19° $\mathfrak{Z}$ 03'25		evening set	-2390 Mar 02 j 14:15	7° $\mathfrak{H}$ 08'57	
max. Earth dist.	-2397 Dec 28 j 17:21	18° $\mathfrak{Z}$ 57'58	10.68124 AU				
morning rise	-2396 Jan 15 j 05:23	21° $\mathfrak{Z}$ 05'52		conjunction	-2390 Mar 20 j 07:50	9° $\mathfrak{H}$ 28'32	-2°-20'-18
retrograde	-2396 Apr 29 j 02:57	28° $\mathfrak{Z}$ 42'38		minimum elong	-2390 Mar 20 j 07:49	9° $\mathfrak{H}$ 28'32	2°20'20
opposition	-2396 Jul 08 j 15:43	25° $\mathfrak{Z}$ 18'08	0°-31'-5	max. Earth dist.	-2390 Mar 20 j 14:07	9° $\mathfrak{H}$ 30'37	9.95658 AU
min. Earth dist.	-2396 Jul 09 j 01:03	25° $\mathfrak{Z}$ 16'21	8.61086 AU	morning rise	-2390 Apr 07 j 05:35	11° $\mathfrak{H}$ 49'28	
direct	-2396 Sep 15 j 03:21	21° $\mathfrak{Z}$ 57'35		retrograde	-2390 Jul 23 j 23:32	20° $\mathfrak{H}$ 23'29	
evening set	-2396 Dec 23 j 19:41	29° $\mathfrak{Z}$ 18'55		opposition	-2390 Sep 29 j 11:14	16° $\mathfrak{H}$ 52'22	-2°-56'-21
	-2396 Dec 29 j 09:55	0° $\mathfrak{Z}$		min. Earth dist.	-2390 Sep 29 j 05:09	16° $\mathfrak{H}$ 53'38	7.93196 AU
				direct	-2390 Dec 04 j 09:44	13° $\mathfrak{H}$ 24'49	
conjunction	-2395 Jan 09 j 18:51	1° $\mathfrak{Z}$ 24'38	0°-39'-59	evening set	-2389 Mar 17 j 21:14	21° $\mathfrak{H}$ 42'30	
minimum elong	-2395 Jan 09 j 18:49	1° $\mathfrak{Z}$ 24'37	0°40'04				
max. Earth dist.	-2395 Jan 09 j 09:18	1° $\mathfrak{Z}$ 21'40	10.54087 AU	conjunction	-2389 Apr 04 j 18:44	24° $\mathfrak{H}$ 03'53	-2°-19'-9
morning rise	-2395 Jan 26 j 22:21	3° $\mathfrak{Z}$ 31'47		minimum elong	-2389 Apr 04 j 18:46	24° $\mathfrak{H}$ 03'53	2°19'10
retrograde	-2395 May 12 j 17:38	11° $\mathfrak{Z}$ 20'21		max. Earth dist.	-2389 Apr 05 j 04:31	24° $\mathfrak{H}$ 07'07	9.91159 AU
opposition	-2395 Jul 21 j 21:16	7° $\mathfrak{Z}$ 54'15	-1°-8'-6	morning rise	-2389 Apr 22 j 19:21	26° $\mathfrak{H}$ 26'15	
min. Earth dist.	-2395 Jul 22 j 04:02	7° $\mathfrak{Z}$ 52'56	8.46879 AU		-2389 May 21 j 19:47	0° $\mathbb{Y}$	
direct	-2395 Sep 27 j 18:11	4° $\mathfrak{Z}$ 32'42		retrograde	-2389 Aug 08 j 00:54	5° $\mathbb{Y}$ 00'43	
evening set	-2394 Jan 05 j 17:34	12° $\mathfrak{Z}$ 03'28		opposition	-2389 Oct 14 j 02:17	1° $\mathbb{Y}$ 29'39	-2°-49'-19
				min. Earth dist.	-2389 Oct 13 j 17:55	1° $\mathbb{Y}$ 31'24	7.90371 AU
conjunction	-2394 Jan 22 j 20:05	14° $\mathfrak{Z}$ 12'08	-1°-9'-5		-2389 Nov 01 j 14:36	30° $\mathbb{R}$ $\mathfrak{H}$	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), AstroDienst AG 7-Dez-2017 14:42, page 2

Attention, astronomical year style is used: The year -2389 in astronomical counting style is the year 2390 BCE in historical counting style.

direct	-2389 Dec 19 j 02:02	28° $\text{X}$ 01'08		behind sun end	-2383 Jul 03 j 05:52	19° $\text{II}$ 45'42	
	-2388 Feb 03 j 14:28	0° $\text{Y}$		max. Earth dist.	-2383 Jul 03 j 12:20	19° $\text{II}$ 47'44	10.31131 AU
evening set	-2388 Apr 01 j 09:13	6° $\text{Y}$ 23'04		morning rise	-2383 Jul 20 j 19:47	21° $\text{II}$ 57'49	
				retrograde	-2383 Oct 29 j 21:01	29° $\text{II}$ 37'05	
conjunction	-2388 Apr 19 j 10:10	8° $\text{Y}$ 45'33	-2°-9'-1	opposition	-2382 Jan 04 j 18:32	26° $\text{II}$ 13'35	0°33'39
minimum elong	-2388 Apr 19 j 10:13	8° $\text{Y}$ 45'34	2°09'01	min. Earth dist.	-2382 Jan 04 j 09:27	26° $\text{II}$ 15'24	8.38002 AU
max. Earth dist.	-2388 Apr 19 j 22:26	8° $\text{Y}$ 49'37	9.90037 AU	direct	-2382 Mar 14 j 20:24	22° $\text{II}$ 45'17	
morning rise	-2388 May 07 j 12:57	11° $\text{Y}$ 08'37			-2382 Jun 23 j 15:29	0° $\text{Z}$	
retrograde	-2388 Aug 21 j 23:59	19° $\text{Y}$ 39'50		evening set	-2382 Jun 29 j 01:09	0° $\text{Z}$ 39'07	
opposition	-2388 Oct 27 j 16:58	16° $\text{Y}$ 09'17	-2°-31'-13				
min. Earth dist.	-2388 Oct 27 j 06:58	16° $\text{Y}$ 11'22	7.90924 AU	conjunction	-2382 Jul 16 j 19:59	2° $\text{Z}$ 50'52	0°43'05
direct	-2387 Jan 01 j 20:59	12° $\text{Y}$ 40'03		minimum elong	-2382 Jul 16 j 19:57	2° $\text{Z}$ 50'52	0°43'09
evening set	-2387 Apr 16 j 22:34	21° $\text{Y}$ 03'26		max. Earth dist.	-2382 Jul 17 j 05:54	2° $\text{Z}$ 53'57	10.45204 AU
				morning rise	-2382 Aug 03 j 09:59	5° $\text{Z}$ 01'06	
conjunction	-2387 May 05 j 02:07	23° $\text{Y}$ 26'12	-1°-50'-33	retrograde	-2382 Nov 11 j 14:49	12° $\text{Z}$ 28'52	
minimum elong	-2387 May 05 j 02:11	23° $\text{Y}$ 26'14	1°50'32	opposition	-2381 Jan 17 j 21:07	9° $\text{Z}$ 06'58	1°11'08
max. Earth dist.	-2387 May 05 j 16:09	23° $\text{Y}$ 30'51	9.92354 AU	min. Earth dist.	-2381 Jan 17 j 13:13	9° $\text{Z}$ 08'32	8.52310 AU
morning rise	-2387 May 23 j 06:06	25° $\text{Y}$ 49'07		direct	-2381 Mar 28 j 14:54	5° $\text{Z}$ 39'40	
	-2387 Jun 27 j 01:35	0° $\text{Z}$		evening set	-2381 Jul 12 j 12:45	13° $\text{Z}$ 24'03	
retrograde	-2387 Sep 05 j 18:40	4° $\text{Z}$ 13'41					
opposition	-2387 Nov 11 j 05:06	0° $\text{Z}$ 44'05	-2°-3'-25	conjunction	-2381 Jul 30 j 02:24	15° $\text{Z}$ 32'18	1°11'51
min. Earth dist.	-2387 Nov 10 j 18:09	0° $\text{Z}$ 46'22	7.94887 AU	minimum elong	-2381 Jul 30 j 02:21	15° $\text{Z}$ 32'17	1°11'55
	-2387 Nov 20 j 02:06	30° $\text{R}$ $\text{Y}$		max. Earth dist.	-2381 Jul 30 j 10:36	15° $\text{Z}$ 34'49	10.59527 AU
direct	-2386 Jan 16 j 18:05	27° $\text{Y}$ 14'26		morning rise	-2381 Aug 16 j 10:46	17° $\text{Z}$ 38'58	
	-2386 Mar 13 j 23:57	0° $\text{Z}$		retrograde	-2381 Nov 24 j 00:19	24° $\text{Z}$ 56'27	
evening set	-2386 May 02 j 10:08	5° $\text{Z}$ 36'19		opposition	-2380 Jan 30 j 16:23	21° $\text{Z}$ 36'03	1°43'57
				min. Earth dist.	-2380 Jan 30 j 10:40	21° $\text{Z}$ 37'10	8.66539 AU
conjunction	-2386 May 20 j 15:00	7° $\text{Z}$ 58'27	-1°-25'-11	direct	-2380 Apr 09 j 23:59	18° $\text{Z}$ 09'52	
minimum elong	-2386 May 20 j 15:04	7° $\text{Z}$ 58'28	1°25'09	evening set	-2380 Jul 24 j 12:32	25° $\text{Z}$ 44'57	
max. Earth dist.	-2386 May 21 j 05:54	8° $\text{Z}$ 03'20	9.98051 AU				
morning rise	-2386 Jun 07 j 18:54	10° $\text{Z}$ 20'15		conjunction	-2380 Aug 10 j 20:41	27° $\text{Z}$ 49'49	1°36'29
	-2386 Jul 17 j 14:09	15° $\text{Z}$		minimum elong	-2380 Aug 10 j 20:38	27° $\text{Z}$ 49'48	1°36'32
retrograde	-2386 Sep 20 j 04:30	18° $\text{Z}$ 35'19		max. Earth dist.	-2380 Aug 11 j 02:14	27° $\text{Z}$ 51'29	10.73411 AU
opposition	-2386 Nov 25 j 12:34	15° $\text{Z}$ 06'59	-1°-28'-13	morning rise	-2380 Aug 27 j 23:32	29° $\text{Z}$ 53'08	
min. Earth dist.	-2386 Nov 25 j 01:35	15° $\text{Z}$ 09'16	8.02099 AU		-2380 Aug 28 j 22:49	0° $\text{Z}$	
	-2386 Nov 26 j 22:17	15° $\text{R}$ $\text{Z}$		retrograde	-2380 Dec 05 j 02:43	7° $\text{Z}$ 01'44	
direct	-2385 Jan 31 j 14:29	11° $\text{Z}$ 37'13		opposition	-2379 Feb 11 j 04:50	3° $\text{Z}$ 42'41	2°11'02
	-2385 Apr 04 j 22:36	15° $\text{Z}$		min. Earth dist.	-2379 Feb 11 j 01:52	3° $\text{Z}$ 43'15	8.80037 AU
evening set	-2385 May 17 j 16:20	19° $\text{Z}$ 54'52		direct	-2379 Apr 22 j 23:20	0° $\text{Z}$ 17'42	
				evening set	-2379 Aug 06 j 01:14	7° $\text{Z}$ 44'01	
conjunction	-2385 Jun 04 j 20:54	22° $\text{Z}$ 15'25	0°-54'-55				
minimum elong	-2385 Jun 04 j 20:57	22° $\text{Z}$ 15'26	0°54'53	conjunction	-2379 Aug 23 j 03:57	9° $\text{Z}$ 45'48	1°56'14
max. Earth dist.	-2385 Jun 05 j 11:30	22° $\text{Z}$ 20'08	10.06811 AU	minimum elong	-2379 Aug 23 j 03:54	9° $\text{Z}$ 45'47	1°56'17
morning rise	-2385 Jun 22 j 23:14	24° $\text{Z}$ 35'12		max. Earth dist.	-2379 Aug 23 j 05:55	9° $\text{Z}$ 46'23	10.86256 AU
	-2385 Aug 10 j 07:02	0° $\text{Z}$		morning rise	-2379 Sep 09 j 01:48	11° $\text{Z}$ 46'08	
retrograde	-2385 Oct 04 j 04:08	2° $\text{Z}$ 38'54			-2379 Oct 08 j 14:57	15° $\text{Z}$	
	-2385 Nov 29 j 18:31	30° $\text{R}$ $\text{Z}$		retrograde	-2379 Dec 16 j 20:24	18° $\text{Z}$ 47'27	
opposition	-2385 Dec 09 j 14:06	29° $\text{Z}$ 12'05	0°-48'-24	opposition	-2378 Feb 23 j 11:30	15° $\text{Z}$ 29'32	2°31'46
min. Earth dist.	-2385 Dec 09 j 03:38	29° $\text{Z}$ 14'14	8.12132 AU	min. Earth dist.	-2378 Feb 23 j 10:55	15° $\text{Z}$ 29'39	8.92224 AU
direct	-2384 Feb 15 j 07:18	25° $\text{Z}$ 42'31			-2378 Mar 02 j 00:09	15° $\text{R}$ $\text{Z}$	
	-2384 Apr 28 j 06:53	0° $\text{Z}$		direct	-2378 May 05 j 16:24	12° $\text{Z}$ 05'50	
evening set	-2384 May 31 j 14:01	3° $\text{Z}$ 53'37			-2378 Jul 06 j 18:15	15° $\text{Z}$	
				evening set	-2378 Aug 18 j 03:53	19° $\text{Z}$ 24'11	
conjunction	-2384 Jun 18 j 16:38	6° $\text{Z}$ 11'44	0°-22'-3				
minimum elong	-2384 Jun 18 j 16:39	6° $\text{Z}$ 11'44	0°22'00	conjunction	-2378 Sep 04 j 01:42	21° $\text{Z}$ 23'16	2°10'42
max. Earth dist.	-2384 Jun 19 j 05:58	6° $\text{Z}$ 16'00	10.18074 AU	minimum elong	-2378 Sep 04 j 01:40	21° $\text{Z}$ 23'15	2°10'43
morning rise	-2384 Jul 06 j 15:59	8° $\text{Z}$ 28'47		max. Earth dist.	-2378 Sep 04 j 00:34	21° $\text{Z}$ 22'56	10.97548 AU
retrograde	-2384 Oct 16 j 17:13	16° $\text{Z}$ 20'15		morning rise	-2378 Sep 20 j 19:09	23° $\text{Z}$ 21'04	
opposition	-2384 Dec 22 j 08:17	12° $\text{Z}$ 55'05	0°-6'-54		-2378 Dec 10 j 08:30	0° $\text{Z}$	
min. Earth dist.	-2384 Dec 21 j 22:24	12° $\text{Z}$ 57'05	8.24349 AU	retrograde	-2378 Dec 28 j 11:36	0° $\text{Z}$ 16'51	
asc. node	-2383 Feb 23 j 17:43	9° $\text{Z}$ 27'21			-2377 Jan 15 j 19:32	30° $\text{R}$ $\text{Z}$	
direct	-2383 Feb 28 j 17:56	9° $\text{Z}$ 26'01		opposition	-2377 Mar 07 j 13:21	26° $\text{Z}$ 59'48	2°45'51
evening set	-2383 Jun 15 j 01:23	17° $\text{Z}$ 28'57		min. Earth dist.	-2377 Mar 07 j 14:18	26° $\text{Z}$ 59'38	9.02628 AU
				direct	-2377 May 18 j 02:08	23° $\text{Z}$ 37'24	
conjunction	-2383 Jul 03 j 00:39	19° $\text{Z}$ 44'04	0°11'18		-2377 Aug 22 j 18:02	0° $\text{Z}$	
minimum elong	-2383 Jul 03 j 00:38	19° $\text{Z}$ 44'03	0°11'22	evening set	-2377 Aug 29 j 21:54	0° $\text{Z}$ 48'44	
behind sun begin	-2383 Jul 02 j 19:24	19° $\text{Z}$ 42'25					



## Planetary Phenomena of Saturn from -2400 through -1900 (UT), AstroDienst AG 7-Dez-2017 14:42, page 3

Attention, astronomical year style is used: The year -2377 in astronomical counting style is the year 2378 BCE in historical counting style.

conjunction	-2377 Sep 15 j 15:42	2°♑45'39	2°19'39	morning rise	-2371 Dec 05 j 19:35	11°♌01'40	
minimum elong	-2377 Sep 15 j 15:41	2°♑45'39	2°19'41		-2370 Jan 12 j 18:56	15°♌	
max. Earth dist.	-2377 Sep 15 j 12:50	2°♑44'49	11.06874 AU	retrograde	-2370 Mar 17 j 14:30	18°♌04'51	
morning rise	-2377 Oct 02 j 05:28	4°♑41'27			-2370 May 24 j 13:05	15°♌	
retrograde	-2376 Jan 08 j 23:48	11°♑33'21		opposition	-2370 May 27 j 15:32	14°♌46'19	1°28'42
opposition	-2376 Mar 18 j 11:37	8°♑16'57	2°53'12	min. Earth dist.	-2370 May 28 j 03:36	14°♌44'06	9.05571 AU
min. Earth dist.	-2376 Mar 18 j 14:33	8°♑16'24	9.10879 AU	direct	-2370 Aug 06 j 02:16	11°♌28'34	
direct	-2376 May 29 j 03:23	4°♑55'46			-2370 Oct 12 j 21:14	15°♌	
evening set	-2376 Sep 09 j 08:50	12°♑01'12		evening set	-2370 Nov 14 j 00:57	18°♌27'05	
conjunction	-2376 Sep 25 j 23:24	13°♑56'31	2°23'06	conjunction	-2370 Nov 30 j 14:21	20°♌24'05	1°00'11
minimum elong	-2376 Sep 25 j 23:24	13°♑56'30	2°23'08	minimum elong	-2370 Nov 30 j 14:23	20°♌24'06	1°00'09
max. Earth dist.	-2376 Sep 25 j 18:23	13°♑55'03	11.13909 AU	max. Earth dist.	-2370 Nov 30 j 00:37	20°♌20'00	11.00929 AU
morning rise	-2376 Oct 12 j 10:32	15°♑50'54		morning rise	-2370 Dec 17 j 05:42	22°♌21'43	
retrograde	-2375 Jan 19 j 10:05	22°♑40'35		retrograde	-2369 Mar 29 j 19:51	29°♌32'27	
opposition	-2375 Mar 30 j 07:28	19°♑24'34	2°53'57	opposition	-2369 Jun 08 j 21:23	26°♌12'34	0°57'11
min. Earth dist.	-2375 Mar 30 j 13:04	19°♑23'32	9.16692 AU	min. Earth dist.	-2369 Jun 09 j 09:19	26°♌10'21	8.95722 AU
direct	-2375 Jun 10 j 00:28	16°♑04'28		direct	-2369 Aug 17 j 19:53	22°♌54'29	
evening set	-2375 Sep 20 j 14:35	23°♑05'17		evening set	-2369 Nov 25 j 12:23	29°♌57'13	
					-2369 Nov 25 j 21:53	0°♊	
conjunction	-2375 Oct 07 j 02:41	24°♑59'31	2°21'09	conjunction	-2369 Dec 12 j 04:10	1°♊56'12	0°33'02
minimum elong	-2375 Oct 07 j 02:41	24°♑59'31	2°21'09	minimum elong	-2369 Dec 12 j 04:11	1°♊56'12	0°32'59
max. Earth dist.	-2375 Oct 06 j 18:37	24°♑57'11	11.18418 AU	max. Earth dist.	-2369 Dec 11 j 15:05	1°♊52'17	10.90050 AU
morning rise	-2375 Oct 23 j 12:19	26°♑53'04		morning rise	-2369 Dec 28 j 22:31	3°♊56'04	
	-2375 Nov 21 j 19:15	0°♊		retrograde	-2368 Apr 10 j 10:50	11°♊15'52	
retrograde	-2374 Jan 30 j 19:03	3°♊42'11		opposition	-2368 Jun 20 j 08:32	7°♊54'28	0°22'33
opposition	-2374 Apr 11 j 02:02	0°♊26'15	2°48'17	min. Earth dist.	-2368 Jun 20 j 19:35	7°♊52'24	8.83810 AU
min. Earth dist.	-2374 Apr 11 j 09:57	0°♊24'49	9.19878 AU	direct	-2368 Aug 28 j 18:28	4°♊35'49	
	-2374 Apr 17 j 02:02	30°♑		evening set	-2368 Dec 06 j 07:28	11°♊44'29	
direct	-2374 Jun 21 j 17:23	27°♑07'05					
	-2374 Aug 22 j 20:57	0°♊		conjunction	-2368 Dec 23 j 01:56	13°♊45'52	0°03'55
evening set	-2374 Oct 01 j 16:40	4°♊04'35		minimum elong	-2368 Dec 23 j 01:55	13°♊45'51	0°03'51
conjunction	-2374 Oct 18 j 03:21	5°♊58'19	2°13'59	behind sun begin	-2368 Dec 22 j 18:58	13°♊43'46	
minimum elong	-2374 Oct 18 j 03:22	5°♊58'19	2°13'58	behind sun end	-2368 Dec 23 j 08:52	13°♊47'56	
max. Earth dist.	-2374 Oct 17 j 17:23	5°♊55'25	11.20265 AU	max. Earth dist.	-2368 Dec 22 j 12:52	13°♊41'54	10.77298 AU
morning rise	-2374 Nov 03 j 12:28	7°♊51'38		morning rise	-2367 Jan 08 j 23:44	15°♊48'21	
retrograde	-2373 Feb 11 j 06:05	14°♊41'52		desc. node	-2367 Feb 09 j 15:01	19°♊18'52	
opposition	-2373 Apr 22 j 20:37	11°♊25'41	2°36'30	retrograde	-2367 Apr 23 j 11:51	23°♊18'37	
min. Earth dist.	-2373 Apr 23 j 05:28	11°♊24'04	9.20339 AU	opposition	-2367 Jul 03 j 02:30	19°♊55'35	0°-14'-3
direct	-2373 Jul 03 j 09:01	8°♊07'15		min. Earth dist.	-2367 Jul 03 j 12:44	19°♊53'38	8.70298 AU
evening set	-2373 Oct 12 j 16:45	15°♊02'46		direct	-2367 Sep 09 j 20:46	16°♊36'06	
				evening set	-2367 Dec 18 j 11:51	23°♊52'18	
conjunction	-2373 Oct 29 j 03:05	16°♊56'34	2°01'54	conjunction	-2366 Jan 04 j 09:12	25°♊56'21	0°-26'-15
minimum elong	-2373 Oct 29 j 03:07	16°♊56'34	2°01'52	minimum elong	-2366 Jan 04 j 09:11	25°♊56'21	0°26'19
max. Earth dist.	-2373 Oct 28 j 16:29	16°♊53'29	11.19382 AU	max. Earth dist.	-2366 Jan 03 j 20:43	25°♊52'30	10.63233 AU
morning rise	-2373 Nov 14 j 12:29	18°♊50'10		morning rise	-2366 Jan 21 j 10:49	28°♊01'46	
retrograde	-2372 Feb 22 j 21:19	25°♊43'08			-2366 Feb 07 j 06:29	0°♋	
opposition	-2372 May 03 j 16:16	22°♊26'27	2°18'59	retrograde	-2366 May 06 j 20:13	5°♋43'34	
min. Earth dist.	-2372 May 04 j 01:54	22°♊24'41	9.18051 AU	opposition	-2366 Jul 16 j 03:54	2°♋18'48	0°-51'-15
direct	-2372 Jul 13 j 22:13	19°♊08'32		min. Earth dist.	-2366 Jul 16 j 13:03	2°♋17'02	8.55827 AU
evening set	-2372 Oct 22 j 17:04	26°♊03'29			-2366 Aug 18 j 07:29	30°♑♊	
conjunction	-2372 Nov 08 j 03:44	27°♊57'52	1°45'15	direct	-2366 Sep 22 j 06:56	28°♊58'12	
minimum elong	-2372 Nov 08 j 03:46	27°♊57'53	1°45'13		-2366 Oct 26 j 12:51	0°♋	
max. Earth dist.	-2372 Nov 07 j 15:54	27°♊54'25	11.15784 AU	evening set	-2366 Dec 31 j 03:18	6°♋23'23	
morning rise	-2372 Nov 24 j 14:20	29°♊52'20					
	-2372 Nov 25 j 17:13	0°♌		conjunction	-2365 Jan 17 j 03:56	8°♋30'21	0°-55'-56
retrograde	-2371 Mar 05 j 14:41	6°♌49'36		minimum elong	-2365 Jan 17 j 03:54	8°♋30'20	0°56'01
opposition	-2371 May 15 j 14:06	3°♌32'07	1°56'12	max. Earth dist.	-2365 Jan 16 j 17:19	8°♋27'01	10.48533 AU
min. Earth dist.	-2371 May 16 j 01:09	3°♌30'06	9.13079 AU	morning rise	-2365 Feb 03 j 09:25	10°♋38'50	
direct	-2371 Jul 25 j 10:36	0°♌14'26		retrograde	-2365 May 20 j 14:27	18°♋32'42	
evening set	-2371 Nov 02 j 19:15	7°♌10'24		opposition	-2365 Jul 29 j 12:51	15°♋06'11	-1°-27'-14
				min. Earth dist.	-2365 Jul 29 j 20:16	15°♋04'44	8.41111 AU
conjunction	-2371 Nov 19 j 06:52	9°♌05'51	1°24'30	direct	-2365 Oct 05 j 02:49	11°♋44'18	
minimum elong	-2371 Nov 19 j 06:54	9°♌05'52	1°24'28	evening set	-2364 Jan 13 j 06:57	19°♋19'31	
max. Earth dist.	-2371 Nov 18 j 17:18	9°♌01'52	11.09579 AU				

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), AstroDienst AG 7-Dez-2017 14:42, page 4

Attention, astronomical year style is used: The year -2364 in astronomical counting style is the year 2365 BCE in historical counting style.

conjunction	-2364 Jan 30 j 11:10	21°☿29'32	-1°-23'-41	conjunction	-2358 Apr 28 j 02:23	16°♃46'27	-2°00'-20
minimum elong	-2364 Jan 30 j 11:07	21°☿29'31	1°23'46	minimum elong	-2358 Apr 28 j 02:26	16°♃46'28	2°00'19
max. Earth dist.	-2364 Jan 30 j 03:52	21°☿27'12	10.33923 AU	max. Earth dist.	-2358 Apr 28 j 14:37	16°♃50'30	9.89135 AU
morning rise	-2364 Feb 16 j 20:24	23°♄41'10		morning rise	-2358 May 16 j 06:13	19°♃09'47	
	-2364 Apr 17 j 11:26	0°♄		retrograde	-2358 Aug 30 j 05:58	27°♃38'32	
retrograde	-2364 Jun 02 j 19:18	1°♄47'00		opposition	-2358 Nov 04 j 19:29	24°♃07'46	-2°-17'-48
	-2364 Jul 20 j 00:59	30°♄		min. Earth dist.	-2358 Nov 04 j 09:28	24°♃09'52	7.90926 AU
opposition	-2364 Aug 11 j 05:34	28°♄18'48	-1°-59'-56	direct	-2357 Jan 10 j 05:16	20°♃37'36	
min. Earth dist.	-2364 Aug 11 j 10:09	28°♄17'54	8.26894 AU	evening set	-2357 Apr 25 j 13:03	29°♃01'07	
direct	-2364 Oct 17 j 06:20	24°♄55'31			-2357 May 03 j 02:21	0°♄	
	-2363 Jan 03 j 16:55	0°♄		conjunction	-2357 May 13 j 17:30	1°♄23'51	-1°-37'-59
evening set	-2363 Jan 25 j 23:23	2°♄41'25		minimum elong	-2357 May 13 j 17:33	1°♄23'52	1°37'57
				max. Earth dist.	-2357 May 14 j 07:38	1°♄28'30	9.93350 AU
conjunction	-2363 Feb 12 j 07:18	4°♄54'27	-1°-47'-46	morning rise	-2357 May 31 j 21:51	3°♄46'30	
minimum elong	-2363 Feb 12 j 07:15	4°♄54'26	1°47'50	retrograde	-2357 Sep 13 j 18:51	12°♄06'53	
max. Earth dist.	-2363 Feb 12 j 03:43	4°♄53'17	10.20176 AU	opposition	-2357 Nov 19 j 05:31	8°♄37'17	-1°-45'-43
morning rise	-2363 Mar 01 j 20:10	7°♄09'08		min. Earth dist.	-2357 Nov 18 j 18:08	8°♄39'40	7.96805 AU
	-2363 May 26 j 02:48	15°♄		direct	-2356 Jan 25 j 02:45	5°♄06'57	
retrograde	-2363 Jun 17 j 09:16	15°♄26'02		evening set	-2356 May 09 j 22:12	13°♄27'22	
	-2363 Jul 09 j 17:04	15°♄			-2356 May 21 j 21:09	15°♄	
opposition	-2363 Aug 25 j 05:40	11°♄56'23	-2°-27'-5	conjunction	-2356 May 28 j 03:13	15°♄48'56	-1°-9'-44
min. Earth dist.	-2363 Aug 25 j 06:53	11°♄56'08	8.13951 AU	minimum elong	-2356 May 28 j 03:16	15°♄48'57	1°09'42
direct	-2363 Oct 30 j 18:28	8°♄31'39		max. Earth dist.	-2356 May 28 j 18:33	15°♄53'56	10.00934 AU
	-2362 Jan 28 j 11:09	15°♄		morning rise	-2356 Jun 15 j 06:38	18°♄09'57	
evening set	-2362 Feb 09 j 04:44	16°♄28'13		retrograde	-2356 Sep 26 j 23:35	26°♄19'41	
				opposition	-2356 Dec 02 j 10:08	22°♄51'36	-1°-7'-39
conjunction	-2362 Feb 26 j 16:28	18°♄44'09	-2°-6'-22	min. Earth dist.	-2356 Dec 01 j 21:58	22°♄54'07	8.05821 AU
minimum elong	-2362 Feb 26 j 16:25	18°♄44'08	2°06'25	direct	-2355 Feb 07 j 20:39	19°♄21'28	
max. Earth dist.	-2362 Feb 26 j 16:30	18°♄44'09	10.08089 AU	evening set	-2355 May 25 j 00:14	27°♄36'15	
morning rise	-2362 Mar 16 j 08:59	21°♄01'40		conjunction	-2355 Jun 12 j 04:13	29°♄55'47	0°-37'-46
retrograde	-2362 Jul 02 j 05:43	29°♄27'44		minimum elong	-2355 Jun 12 j 04:15	29°♄55'47	0°37'43
opposition	-2362 Sep 08 j 12:12	25°♄56'57	-2°-46'-22		-2355 Jun 12 j 17:20	0°♄	
min. Earth dist.	-2362 Sep 08 j 10:22	25°♄57'19	8.03046 AU	max. Earth dist.	-2355 Jun 12 j 19:54	0°♄00'50	10.11373 AU
direct	-2362 Nov 13 j 16:28	22°♄30'45		morning rise	-2355 Jun 30 j 05:14	2°♄14'20	
	-2361 Feb 19 j 01:32	0°♄		retrograde	-2355 Oct 10 j 19:27	10°♄12'07	
evening set	-2361 Feb 23 j 21:53	0°♄37'16		opposition	-2355 Dec 16 j 08:02	6°♄45'47	0°-26'-32
				min. Earth dist.	-2355 Dec 15 j 20:18	6°♄48'11	8.17380 AU
conjunction	-2361 Mar 13 j 13:34	2°♄55'48	-2°-17'-50	direct	-2354 Feb 22 j 09:00	3°♄16'12	
minimum elong	-2361 Mar 13 j 13:33	2°♄55'48	2°17'52	evening set	-2354 Jun 08 j 17:07	11°♄23'32	
max. Earth dist.	-2361 Mar 13 j 16:59	2°♄56'56	9.98404 AU	conjunction	-2354 Jun 26 j 18:22	13°♄40'17	0°-4'-24
morning rise	-2361 Mar 31 j 09:39	5°♄15'47		minimum elong	-2354 Jun 26 j 18:23	13°♄40'17	0°04'22
retrograde	-2361 Jul 17 j 06:23	13°♄48'10		behind sun begin	-2354 Jun 26 j 11:12	13°♄38'02	
opposition	-2361 Sep 22 j 23:45	10°♄16'40	-2°-55'-51	behind sun end	-2354 Jun 27 j 01:34	13°♄42'33	
min. Earth dist.	-2361 Sep 22 j 19:21	10°♄17'34	7.94852 AU	max. Earth dist.	-2354 Jun 27 j 09:01	13°♄44'55	10.23979 AU
direct	-2361 Nov 27 j 22:48	6°♄49'07		morning rise	-2354 Jul 14 j 15:36	15°♄55'45	
evening set	-2360 Mar 10 j 00:52	15°♄03'55		asc. node	-2354 Aug 15 j 06:30	19°♄36'13	
				retrograde	-2354 Oct 24 j 05:35	23°♄41'12	
conjunction	-2360 Mar 27 j 20:26	17°♄24'37	-2°-20'-55	opposition	-2354 Dec 29 j 22:23	20°♄16'45	0°14'49
minimum elong	-2360 Mar 27 j 20:27	17°♄24'37	2°20'56	min. Earth dist.	-2354 Dec 29 j 12:04	20°♄18'50	8.30765 AU
max. Earth dist.	-2360 Mar 28 j 02:59	17°♄26'47	9.91746 AU	direct	-2353 Mar 08 j 14:47	16°♄48'02	
morning rise	-2360 Apr 14 j 19:45	19°♄46'29		evening set	-2353 Jun 22 j 23:02	24°♄46'41	
retrograde	-2360 Jul 31 j 08:40	28°♄21'35		conjunction	-2353 Jul 10 j 20:09	27°♄00'10	0°28'26
opposition	-2360 Oct 06 j 14:19	24°♄49'51	-2°-54'-15	minimum elong	-2353 Jul 10 j 20:08	27°♄00'09	0°28'30
min. Earth dist.	-2360 Oct 06 j 07:54	24°♄51'11	7.89912 AU	max. Earth dist.	-2353 Jul 11 j 08:33	27°♄04'02	10.37996 AU
direct	-2360 Dec 11 j 12:19	21°♄21'08		morning rise	-2353 Jul 28 j 12:38	29°♄12'11	
evening set	-2359 Mar 25 j 10:43	29°♄41'50			-2353 Aug 04 j 02:18	0°♄	
	-2359 Mar 27 j 18:27	0°♄		retrograde	-2353 Nov 06 j 03:49	6°♄45'42	
conjunction	-2359 Apr 12 j 09:59	2°♄04'03	-2°-15'00	opposition	-2352 Jan 12 j 05:13	3°♄23'10	0°54'03
minimum elong	-2359 Apr 12 j 10:02	2°♄04'04	2°15'00	min. Earth dist.	-2352 Jan 11 j 20:38	3°♄24'52	8.45209 AU
max. Earth dist.	-2359 Apr 12 j 19:35	2°♄07'14	9.88583 AU	direct	-2352 Mar 21 j 14:21	29°♄55'31	
morning rise	-2359 Apr 30 j 11:59	4°♄27'06			-2352 Mar 30 j 21:32	0°♄	
retrograde	-2359 Aug 15 j 09:32	13°♄00'57					
opposition	-2359 Oct 21 j 05:40	9°♄29'27	-2°-41'-16				
min. Earth dist.	-2359 Oct 20 j 21:21	9°♄31'12	7.88574 AU				
direct	-2359 Dec 26 j 07:06	5°♄59'51					
evening set	-2358 Apr 09 j 23:58	14°♄23'30					

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 5

Attention, astronomical year style is used: The year -2352 in astronomical counting style is the year 2353 BCE in historical counting style.

evening set	-2352 Jul 05 j 16:52	7° <del>5</del> 44'50		conjunction	-2346 Oct 02 j 11:56	20° <del>1</del> 15'22	2°22'35
				minimum elong	-2346 Oct 02 j 11:56	20° <del>1</del> 15'22	2°22'36
conjunction	-2352 Jul 23 j 08:58	9° <del>5</del> 54'48	0°58'50	max. Earth dist.	-2346 Oct 02 j 04:23	20° <del>1</del> 13'10	11.16686 AU
minimum elong	-2352 Jul 23 j 08:56	9° <del>5</del> 54'47	0°58'53	morning rise	-2346 Oct 18 j 22:09	22° <del>1</del> 09'18	
max. Earth dist.	-2352 Jul 23 j 18:29	9° <del>5</del> 57'44	10.52650 AU	retrograde	-2345 Jan 26 j 02:27	28° <del>1</del> 58'52	
morning rise	-2352 Aug 09 j 20:10	12° <del>5</del> 03'14		opposition	-2345 Apr 06 j 03:46	25° <del>1</del> 43'08	2°51'31
retrograde	-2352 Nov 17 j 17:07	19° <del>5</del> 25'50		min. Earth dist.	-2345 Apr 06 j 10:42	25° <del>1</del> 41'52	9.18563 AU
opposition	-2351 Jan 24 j 04:21	16° <del>5</del> 05'02	1°29'15	direct	-2345 Jun 16 j 20:18	22° <del>1</del> 23'44	
min. Earth dist.	-2351 Jan 23 j 21:22	16° <del>5</del> 06'24	8.59931 AU	evening set	-2345 Sep 27 j 02:47	29° <del>1</del> 22'59	
direct	-2351 Apr 04 j 04:48	12° <del>5</del> 38'38			-2345 Oct 02 j 12:15	0° <del>0</del>	
evening set	-2351 Jul 18 j 22:52	20° <del>5</del> 18'30					
				conjunction	-2345 Oct 13 j 14:12	1° <del>0</del> 16'58	2°17'46
conjunction	-2351 Aug 05 j 09:34	22° <del>5</del> 24'59	1°25'33	minimum elong	-2345 Oct 13 j 14:13	1° <del>0</del> 16'59	2°17'46
minimum elong	-2351 Aug 05 j 09:30	22° <del>5</del> 24'58	1°25'35	max. Earth dist.	-2345 Oct 13 j 04:53	1° <del>0</del> 14'16	11.19357 AU
max. Earth dist.	-2351 Aug 05 j 16:13	22° <del>5</del> 27'01	10.67184 AU	morning rise	-2345 Oct 29 j 23:21	3° <del>0</del> 10'25	
morning rise	-2351 Aug 22 j 15:12	24° <del>5</del> 29'55		retrograde	-2344 Feb 06 j 12:45	10° <del>0</del> 00'19	
	-2351 Oct 16 j 04:27	0° <del>0</del>		opposition	-2344 Apr 16 j 22:38	6° <del>0</del> 44'19	2°42'29
retrograde	-2351 Nov 29 j 23:26	1° <del>0</del> 42'53		min. Earth dist.	-2344 Apr 17 j 07:57	6° <del>0</del> 42'37	9.19857 AU
	-2350 Jan 15 j 01:57	30° <del>1</del> 00'		direct	-2344 Jun 27 j 12:01	3° <del>0</del> 25'31	
opposition	-2350 Feb 05 j 20:16	28° <del>5</del> 23'37	1°59'09	evening set	-2344 Oct 07 j 04:04	10° <del>0</del> 22'11	
min. Earth dist.	-2350 Feb 05 j 14:54	28° <del>5</del> 24'39	8.74187 AU				
direct	-2350 Apr 17 j 09:26	24° <del>5</del> 58'33		conjunction	-2344 Oct 23 j 14:29	12° <del>0</del> 16'00	2°07'53
	-2350 Jul 09 j 15:25	0° <del>0</del>		minimum elong	-2344 Oct 23 j 14:31	12° <del>0</del> 16'00	2°07'52
evening set	-2350 Jul 31 j 17:21	2° <del>0</del> 29'16		max. Earth dist.	-2344 Oct 23 j 02:31	12° <del>0</del> 12'31	11.19297 AU
				morning rise	-2344 Nov 08 j 23:45	14° <del>0</del> 09'31	
conjunction	-2350 Aug 17 j 22:40	4° <del>0</del> 32'29	1°47'40	retrograde	-2343 Feb 17 j 01:07	21° <del>0</del> 01'22	
minimum elong	-2350 Aug 17 j 22:37	4° <del>0</del> 32'28	1°47'42	opposition	-2343 Apr 28 j 18:00	17° <del>0</del> 44'48	2°27'33
max. Earth dist.	-2350 Aug 18 j 03:06	4° <del>0</del> 33'49	10.80895 AU	min. Earth dist.	-2343 Apr 29 j 05:11	17° <del>0</del> 42'45	9.18397 AU
morning rise	-2350 Sep 03 j 22:49	6° <del>0</del> 34'12		direct	-2343 Jul 09 j 02:46	14° <del>0</del> 26'22	
retrograde	-2350 Dec 11 j 22:06	13° <del>0</del> 39'02		evening set	-2343 Oct 18 j 04:17	21° <del>0</del> 21'51	
opposition	-2349 Feb 18 j 06:08	10° <del>0</del> 21'05	2°22'54				
min. Earth dist.	-2349 Feb 18 j 03:12	10° <del>0</del> 21'39	8.87305 AU	conjunction	-2343 Nov 03 j 14:40	23° <del>0</del> 16'01	1°53'16
direct	-2349 Apr 30 j 05:50	6° <del>0</del> 57'20		minimum elong	-2343 Nov 03 j 14:42	23° <del>0</del> 16'02	1°53'14
evening set	-2349 Aug 13 j 01:04	14° <del>0</del> 19'33		max. Earth dist.	-2343 Nov 03 j 01:26	23° <del>0</del> 12'10	11.16520 AU
	-2349 Aug 18 j 19:26	15° <del>0</del>		morning rise	-2343 Nov 20 j 00:49	25° <del>0</del> 10'10	
conjunction	-2349 Aug 30 j 01:15	16° <del>0</del> 19'51	2°04'37		-2342 Jan 07 j 19:09	0° <del>0</del>	
minimum elong	-2349 Aug 30 j 01:12	16° <del>0</del> 19'51	2°04'39	retrograde	-2342 Feb 28 j 16:08	2° <del>0</del> 05'39	
max. Earth dist.	-2349 Aug 30 j 02:50	16° <del>0</del> 20'19	10.93151 AU		-2342 Apr 23 j 21:00	30° <del>1</del> 00'	
morning rise	-2349 Sep 15 j 20:32	18° <del>0</del> 18'46		opposition	-2342 May 10 j 14:58	28° <del>0</del> 48'10	2°07'06
retrograde	-2349 Dec 23 j 16:07	25° <del>0</del> 17'11		min. Earth dist.	-2342 May 11 j 02:41	28° <del>0</del> 46'01	9.14243 AU
opposition	-2348 Mar 01 j 10:43	22° <del>0</del> 00'17	2°40'04	direct	-2342 Jul 20 j 17:00	25° <del>0</del> 29'55	
min. Earth dist.	-2348 Mar 01 j 11:07	22° <del>0</del> 00'12	8.98687 AU		-2342 Oct 07 j 01:10	0° <del>0</del>	
direct	-2348 May 11 j 18:17	18° <del>0</del> 37'47		evening set	-2342 Oct 29 j 05:22	2° <del>0</del> 25'42	
evening set	-2348 Aug 23 j 23:36	25° <del>0</del> 52'29					
				conjunction	-2342 Nov 14 j 16:39	4° <del>0</del> 20'45	1°34'19
conjunction	-2348 Sep 09 j 19:10	27° <del>0</del> 50'22	2°16'07	minimum elong	-2342 Nov 14 j 16:42	4° <del>0</del> 20'45	1°34'17
minimum elong	-2348 Sep 09 j 19:08	27° <del>0</del> 50'22	2°16'09	max. Earth dist.	-2342 Nov 14 j 03:36	4° <del>0</del> 16'55	11.11120 AU
max. Earth dist.	-2348 Sep 09 j 16:42	27° <del>0</del> 49'39	11.03419 AU	morning rise	-2342 Dec 01 j 04:21	6° <del>0</del> 16'01	
morning rise	-2348 Sep 26 j 10:33	29° <del>0</del> 47'03		retrograde	-2341 Mar 12 j 14:21	13° <del>0</del> 16'46	
	-2348 Sep 28 j 07:39	0° <del>0</del>		opposition	-2341 May 22 j 14:44	9° <del>0</del> 58'10	1°41'39
retrograde	-2347 Jan 03 j 04:22	6° <del>0</del> 40'46		min. Earth dist.	-2341 May 23 j 02:15	9° <del>0</del> 56'03	9.07540 AU
opposition	-2347 Mar 13 j 10:53	3° <del>0</del> 24'35	2°50'31	direct	-2341 Aug 01 j 07:54	6° <del>0</del> 39'53	
min. Earth dist.	-2347 Mar 13 j 14:19	3° <del>0</del> 23'57	9.07861 AU	evening set	-2341 Nov 09 j 09:17	13° <del>0</del> 37'29	
direct	-2347 May 23 j 23:33	0° <del>0</del> 03'16			-2341 Nov 21 j 03:15	15° <del>0</del>	
evening set	-2347 Sep 04 j 14:20	7° <del>0</del> 11'39					
				conjunction	-2341 Nov 25 j 22:01	15° <del>0</del> 33'55	1°11'32
conjunction	-2347 Sep 21 j 06:11	9° <del>0</del> 07'40	2°22'05	minimum elong	-2341 Nov 25 j 22:03	15° <del>0</del> 33'55	1°11'30
minimum elong	-2347 Sep 21 j 06:10	9° <del>0</del> 07'40	2°22'07	max. Earth dist.	-2341 Nov 25 j 08:24	15° <del>0</del> 29'53	11.03274 AU
max. Earth dist.	-2347 Sep 21 j 00:21	9° <del>0</del> 05'58	11.11334 AU	morning rise	-2341 Dec 12 j 12:05	17° <del>0</del> 30'50	
morning rise	-2347 Oct 07 j 18:34	11° <del>0</del> 02'41		retrograde	-2340 Mar 23 j 17:20	24° <del>0</del> 38'24	
retrograde	-2346 Jan 14 j 15:27	17° <del>0</del> 53'30		opposition	-2340 Jun 02 j 18:31	21° <del>0</del> 18'30	1°11'51
opposition	-2346 Mar 25 j 08:11	14° <del>0</del> 37'43	2°54'16	min. Earth dist.	-2340 Jun 03 j 06:22	21° <del>0</del> 16'19	8.98505 AU
min. Earth dist.	-2346 Mar 25 j 13:30	14° <del>0</del> 36'44	9.14539 AU	direct	-2340 Aug 11 j 22:35	17° <del>0</del> 59'57	
direct	-2346 Jun 05 j 01:19	11° <del>0</del> 17'26		evening set	-2340 Nov 19 j 18:05	25° <del>0</del> 01'05	
evening set	-2346 Sep 15 j 22:45	18° <del>0</del> 20'39					
				conjunction	-2340 Dec 06 j 08:42	26° <del>0</del> 59'18	0°45'33
				minimum elong	-2340 Dec 06 j 08:44	26° <del>0</del> 59'19	0°45'30

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 6

Attention, astronomical year style is used: The year -2340 in astronomical counting style is the year 2341 BCE in historical counting style.

max. Earth dist.	-2340 Dec 05 j 18:23	26° $\mathbb{M}$ 55'02	10.93238 AU	conjunction	-2333 Feb 20 j 14:13	12° $\approx$ 45'09	-1°-58'-46
morning rise	-2340 Dec 23 j 01:47	28° $\mathbb{M}$ 58'18		minimum elong	-2333 Feb 20 j 14:10	12° $\approx$ 45'08	1°58'49
	-2340 Dec 31 j 23:48	0° $\mathcal{A}$		max. Earth dist.	-2333 Feb 20 j 12:46	12° $\approx$ 44'41	10.13337 AU
retrograde	-2339 Apr 05 j 03:12	6° $\mathcal{A}$ 14'16		morning rise	-2333 Mar 10 j 05:15	15° $\approx$ 01'28	
opposition	-2339 Jun 15 j 03:19	2° $\mathcal{A}$ 52'56	0°38'28		-2333 Mar 10 j 00:37	15° $\approx$	
min. Earth dist.	-2339 Jun 15 j 15:18	2° $\mathcal{A}$ 50'41	8.87451 AU	retrograde	-2333 Jun 25 j 23:21	23° $\approx$ 23'51	
	-2339 Jul 31 j 20:08	30° $\mathbb{R}$ $\mathbb{M}$		opposition	-2333 Sep 02 j 12:26	19° $\approx$ 53'49	-2°-38'-44
direct	-2339 Aug 23 j 19:17	29° $\mathbb{M}$ 33'53		min. Earth dist.	-2333 Sep 02 j 11:56	19° $\approx$ 53'55	8.07937 AU
	-2339 Sep 15 j 11:08	0° $\mathcal{A}$		direct	-2333 Nov 07 j 20:20	16° $\approx$ 28'33	
evening set	-2339 Dec 01 j 09:27	6° $\mathcal{A}$ 40'11		evening set	-2332 Feb 17 j 16:41	24° $\approx$ 30'54	
conjunction	-2339 Dec 18 j 02:36	8° $\mathcal{A}$ 40'37	0°17'10	conjunction	-2332 Mar 06 j 06:31	26° $\approx$ 48'17	-2°-13'-35
minimum elong	-2339 Dec 18 j 02:36	8° $\mathcal{A}$ 40'37	0°17'07	minimum elong	-2332 Mar 06 j 06:29	26° $\approx$ 48'17	2°13'37
max. Earth dist.	-2339 Dec 17 j 13:05	8° $\mathcal{A}$ 36'32	10.81363 AU	max. Earth dist.	-2332 Mar 06 j 09:14	26° $\approx$ 49'11	10.02922 AU
morning rise	-2338 Jan 03 j 23:00	10° $\mathcal{A}$ 42'04		morning rise	-2332 Mar 24 j 01:02	29° $\approx$ 07'12	
retrograde	-2338 Apr 17 j 22:34	18° $\mathcal{A}$ 07'53			-2332 Mar 30 j 23:04	0° $\mathcal{H}$	
opposition	-2338 Jun 27 j 18:21	14° $\mathcal{A}$ 44'58	0°02'33	retrograde	-2332 Jul 09 j 22:13	7° $\mathcal{H}$ 37'12	
min. Earth dist.	-2338 Jun 28 j 05:16	14° $\mathcal{A}$ 42'54	8.74786 AU	opposition	-2332 Sep 15 j 22:17	4° $\mathcal{H}$ 06'25	-2°-52'-44
desc. node	-2338 Jul 23 j 22:39	12° $\mathcal{A}$ 52'56		min. Earth dist.	-2332 Sep 15 j 18:38	4° $\mathcal{H}$ 07'10	7.98883 AU
direct	-2338 Sep 04 j 20:27	11° $\mathcal{A}$ 25'15		direct	-2332 Nov 20 j 23:09	0° $\mathcal{H}$ 39'58	
evening set	-2338 Dec 13 j 09:19	18° $\mathcal{A}$ 38'18		evening set	-2331 Mar 03 j 15:40	8° $\mathcal{H}$ 51'14	
conjunction	-2338 Dec 30 j 05:27	20° $\mathcal{A}$ 41'16	0°-12'-42	conjunction	-2331 Mar 21 j 09:30	11° $\mathcal{H}$ 10'58	-2°-20'-30
minimum elong	-2338 Dec 30 j 05:27	20° $\mathcal{A}$ 41'16	0°12'47	minimum elong	-2331 Mar 21 j 09:30	11° $\mathcal{H}$ 10'58	2°20'31
behind sun begin	-2338 Dec 30 j 00:58	20° $\mathcal{A}$ 39'54		max. Earth dist.	-2331 Mar 21 j 16:30	11° $\mathcal{H}$ 13'16	9.95260 AU
behind sun end	-2338 Dec 30 j 09:55	20° $\mathcal{A}$ 42'37		morning rise	-2331 Apr 08 j 07:17	13° $\mathcal{H}$ 31'59	
max. Earth dist.	-2338 Dec 29 j 18:00	20° $\mathcal{A}$ 37'46	10.68087 AU	retrograde	-2331 Jul 25 j 00:53	22° $\mathcal{H}$ 06'16	
morning rise	-2337 Jan 16 j 05:22	22° $\mathcal{A}$ 45'29		opposition	-2331 Sep 30 j 12:01	18° $\mathcal{H}$ 35'07	-2°-56'-8
	-2337 Apr 09 j 22:51	0° $\mathcal{B}$		min. Earth dist.	-2331 Sep 30 j 05:19	18° $\mathcal{H}$ 36'31	7.92831 AU
retrograde	-2337 May 01 j 03:19	0° $\mathcal{B}$ 22'21		direct	-2331 Dec 05 j 09:31	15° $\mathcal{H}$ 07'33	
	-2337 May 22 j 12:18	30° $\mathbb{R}$ $\mathcal{A}$		evening set	-2330 Mar 18 j 23:03	23° $\mathcal{H}$ 25'37	
opposition	-2337 Jul 10 j 16:17	26° $\mathcal{A}$ 57'47	0°-34'-35	conjunction	-2330 Apr 05 j 20:47	25° $\mathcal{H}$ 47'07	-2°-18'-35
min. Earth dist.	-2337 Jul 11 j 01:03	26° $\mathcal{A}$ 56'07	8.61003 AU	minimum elong	-2330 Apr 05 j 20:49	25° $\mathcal{H}$ 47'08	2°18'36
direct	-2337 Sep 17 j 03:38	23° $\mathcal{A}$ 37'13		max. Earth dist.	-2330 Apr 06 j 07:14	25° $\mathcal{H}$ 50'35	9.90848 AU
	-2337 Dec 17 j 16:41	0° $\mathcal{B}$		morning rise	-2330 Apr 23 j 21:27	28° $\mathcal{H}$ 09'36	
evening set	-2337 Dec 25 j 19:40	0° $\mathcal{B}$ 58'33			-2330 May 08 j 09:27	0° $\mathcal{Y}$	
conjunction	-2336 Jan 11 j 18:57	3° $\mathcal{B}$ 04'19	0°-42'-45	retrograde	-2330 Aug 09 j 03:26	6° $\mathcal{Y}$ 44'12	
minimum elong	-2336 Jan 11 j 18:55	3° $\mathcal{B}$ 04'18	0°42'49	opposition	-2330 Oct 15 j 03:17	3° $\mathcal{Y}$ 13'08	-2°-48'-9
max. Earth dist.	-2336 Jan 11 j 09:22	3° $\mathcal{Y}$ 01'20	10.53954 AU	min. Earth dist.	-2330 Oct 14 j 18:26	3° $\mathcal{Y}$ 14'58	7.90140 AU
morning rise	-2336 Jan 28 j 22:33	5° $\mathcal{B}$ 11'30			-2330 Dec 03 j 16:31	30° $\mathbb{R}$ $\mathcal{H}$	
retrograde	-2336 May 13 j 19:02	13° $\mathcal{B}$ 00'12		direct	-2330 Dec 20 j 01:55	29° $\mathcal{H}$ 44'34	
opposition	-2336 Jul 22 j 21:40	9° $\mathcal{B}$ 34'02	-1°-11'-22		-2329 Jan 05 j 11:39	0° $\mathcal{Y}$	
min. Earth dist.	-2336 Jul 23 j 04:13	9° $\mathcal{B}$ 32'46	8.46703 AU	evening set	-2329 Apr 03 j 11:24	8° $\mathcal{Y}$ 06'47	
direct	-2336 Sep 28 j 18:02	6° $\mathcal{B}$ 12'27		conjunction	-2329 Apr 21 j 12:32	10° $\mathcal{Y}$ 29'20	-2°-7'-43
evening set	-2335 Jan 06 j 17:49	13° $\mathcal{B}$ 43'20		minimum elong	-2329 Apr 21 j 12:35	10° $\mathcal{Y}$ 29'21	2°07'43
conjunction	-2335 Jan 23 j 20:21	15° $\mathcal{B}$ 52'03	-1°-11'-34	max. Earth dist.	-2329 Apr 22 j 01:02	10° $\mathcal{Y}$ 33'29	9.89907 AU
minimum elong	-2335 Jan 23 j 20:18	15° $\mathcal{B}$ 52'02	1°11'39	morning rise	-2329 May 09 j 15:24	12° $\mathcal{Y}$ 52'28	
max. Earth dist.	-2335 Jan 23 j 12:32	15° $\mathcal{B}$ 49'35	10.39620 AU	retrograde	-2329 Aug 24 j 02:54	21° $\mathcal{Y}$ 23'32	
morning rise	-2335 Feb 10 j 03:48	18° $\mathcal{B}$ 02'21		opposition	-2329 Oct 29 j 18:03	17° $\mathcal{Y}$ 53'00	-2°-29'-11
retrograde	-2335 May 27 j 20:31	26° $\mathcal{B}$ 03'07		min. Earth dist.	-2329 Oct 29 j 08:12	17° $\mathcal{Y}$ 55'03	7.90886 AU
opposition	-2335 Aug 05 j 11:10	22° $\mathcal{B}$ 35'27	-1°-45'-49	direct	-2328 Jan 03 j 22:24	14° $\mathcal{Y}$ 23'42	
min. Earth dist.	-2335 Aug 05 j 15:34	22° $\mathcal{B}$ 34'35	8.32586 AU	evening set	-2328 Apr 18 j 00:57	22° $\mathcal{Y}$ 47'11	
direct	-2335 Oct 11 j 16:19	19° $\mathcal{B}$ 12'42		conjunction	-2328 May 06 j 04:31	25° $\mathcal{Y}$ 09'58	-1°-48'-36
evening set	-2334 Jan 20 j 04:30	26° $\mathcal{B}$ 54'00		minimum elong	-2328 May 06 j 04:35	25° $\mathcal{Y}$ 10'00	1°48'35
conjunction	-2334 Feb 06 j 10:32	29° $\mathcal{B}$ 05'43	-1°-37'-31	max. Earth dist.	-2328 May 06 j 18:06	25° $\mathcal{Y}$ 14'27	9.92399 AU
minimum elong	-2334 Feb 06 j 10:29	29° $\mathcal{B}$ 05'42	1°37'34	morning rise	-2328 May 24 j 08:35	27° $\mathcal{Y}$ 32'54	
max. Earth dist.	-2334 Feb 06 j 05:23	29° $\mathcal{B}$ 04'04	10.25824 AU		-2328 Jun 12 j 23:37	0° $\mathcal{B}$	
	-2334 Feb 13 j 12:10	0° $\approx$		retrograde	-2328 Sep 06 j 20:12	5° $\mathcal{B}$ 57'08	
morning rise	-2334 Feb 23 j 21:52	1° $\approx$ 19'07		opposition	-2328 Nov 12 j 06:08	2° $\mathcal{B}$ 27'35	-2°00'-39
retrograde	-2334 Jun 11 j 06:27	9° $\approx$ 31'26		min. Earth dist.	-2328 Nov 11 j 19:52	2° $\mathcal{B}$ 29'44	7.94987 AU
opposition	-2334 Aug 19 j 08:24	6° $\approx$ 02'27	-2°-15'-42		-2328 Dec 15 j 02:12	30° $\mathbb{R}$ $\mathcal{Y}$	
min. Earth dist.	-2334 Aug 19 j 10:39	6° $\approx$ 01'59	8.19409 AU	direct	-2327 Jan 17 j 20:17	28° $\mathcal{Y}$ 57'53	
direct	-2334 Oct 25 j 01:05	2° $\approx$ 38'27			-2327 Feb 20 j 11:04	0° $\mathcal{B}$	
evening set	-2333 Feb 03 j 04:22	10° $\approx$ 30'30		evening set	-2327 May 03 j 12:24	7° $\mathcal{B}$ 19'48	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 7

Attention, astronomical year style is used: The year -2327 in astronomical counting style is the year 2328 BCE in historical counting style.

conjunction	-2327 May 21 j 17:12	9° $\text{♄}$ 41'54	-1°-22'-43	opposition	-2321 Jan 31 j 17:37	23° $\text{♄}$ 18'12	1°46'52
minimum elong	-2327 May 21 j 17:16	9° $\text{♄}$ 41'56	1°22'42	min. Earth dist.	-2321 Jan 31 j 12:35	23° $\text{♄}$ 19'11	8.66769 AU
max. Earth dist.	-2327 May 22 j 07:09	9° $\text{♄}$ 46'28	9.98197 AU	direct	-2321 Apr 12 j 00:33	19° $\text{♄}$ 52'05	
morning rise	-2327 Jun 08 j 21:10	12° $\text{♄}$ 03'41		evening set	-2321 Jul 26 j 14:13	27° $\text{♄}$ 27'08	
	-2327 Jul 02 j 20:10	15° $\text{♄}$					
retrograde	-2327 Sep 21 j 04:46	20° $\text{♄}$ 18'25		conjunction	-2321 Aug 12 j 21:56	29° $\text{♄}$ 31'54	1°38'39
opposition	-2327 Nov 26 j 13:34	16° $\text{♄}$ 50'10	-1°-24'-54	minimum elong	-2321 Aug 12 j 21:53	29° $\text{♄}$ 31'53	1°38'41
min. Earth dist.	-2327 Nov 26 j 03:15	16° $\text{♄}$ 52'19	8.02273 AU	max. Earth dist.	-2321 Aug 13 j 02:42	29° $\text{♄}$ 33'20	10.73637 AU
	-2327 Dec 19 j 22:38	15° $\text{♄}$			-2321 Aug 16 j 18:57	0° $\text{♄}$	
direct	-2326 Feb 01 j 16:28	13° $\text{♄}$ 20'23		morning rise	-2321 Aug 30 j 00:34	1° $\text{♄}$ 35'08	
	-2326 Mar 17 j 00:51	15° $\text{♄}$		retrograde	-2321 Dec 07 j 02:11	8° $\text{♄}$ 43'40	
evening set	-2326 May 18 j 18:26	21° $\text{♄}$ 38'01		opposition	-2320 Feb 13 j 06:14	5° $\text{♄}$ 24'41	2°13'24
				min. Earth dist.	-2320 Feb 13 j 03:16	5° $\text{♄}$ 25'16	8.80273 AU
conjunction	-2326 Jun 05 j 22:56	23° $\text{♄}$ 58'32	0°-52'-7	direct	-2320 Apr 24 j 01:44	1° $\text{♄}$ 59'47	
minimum elong	-2326 Jun 05 j 22:58	23° $\text{♄}$ 58'32	0°52'04	evening set	-2320 Aug 07 j 02:30	9° $\text{♄}$ 26'00	
max. Earth dist.	-2326 Jun 06 j 12:30	24° $\text{♄}$ 02'55	10.07004 AU				
morning rise	-2326 Jun 24 j 01:18	26° $\text{♄}$ 18'17		conjunction	-2320 Aug 24 j 04:54	11° $\text{♄}$ 27'40	1°57'55
	-2326 Jul 25 j 02:58	0° $\text{♄}$		minimum elong	-2320 Aug 24 j 04:51	11° $\text{♄}$ 27'40	1°57'57
retrograde	-2326 Oct 05 j 04:30	4° $\text{♄}$ 21'40		max. Earth dist.	-2320 Aug 24 j 06:40	11° $\text{♄}$ 28'12	10.86489 AU
opposition	-2326 Dec 10 j 14:59	0° $\text{♄}$ 54'57	0°-44'-46	morning rise	-2320 Sep 10 j 02:33	13° $\text{♄}$ 27'55	
min. Earth dist.	-2326 Dec 10 j 04:41	0° $\text{♄}$ 57'04	8.12335 AU		-2320 Sep 23 j 13:15	15° $\text{♄}$	
	-2326 Dec 21 j 21:57	30° $\text{♄}$		retrograde	-2320 Dec 17 j 21:57	20° $\text{♄}$ 29'15	
direct	-2325 Feb 16 j 08:56	27° $\text{♄}$ 25'24		opposition	-2319 Feb 24 j 12:51	17° $\text{♄}$ 11'21	2°33'30
	-2325 Apr 12 j 15:21	0° $\text{♄}$		min. Earth dist.	-2319 Feb 24 j 11:32	17° $\text{♄}$ 11'36	8.92460 AU
evening set	-2325 Jun 02 j 16:08	5° $\text{♄}$ 36'29			-2319 Mar 28 j 02:07	15° $\text{♄}$	
				direct	-2319 May 06 j 18:44	13° $\text{♄}$ 47'44	
conjunction	-2325 Jun 20 j 18:39	7° $\text{♄}$ 54'34	0°-19'-3		-2319 Jun 14 j 21:08	15° $\text{♄}$	
minimum elong	-2325 Jun 20 j 18:40	7° $\text{♄}$ 54'35	0°19'01	evening set	-2319 Aug 19 j 04:52	21° $\text{♄}$ 05'54	
max. Earth dist.	-2325 Jun 21 j 07:29	7° $\text{♄}$ 58'40	10.18283 AU				
morning rise	-2325 Jul 08 j 17:52	10° $\text{♄}$ 11'32		conjunction	-2319 Sep 05 j 02:32	23° $\text{♄}$ 04'55	2°11'50
retrograde	-2325 Oct 18 j 18:19	18° $\text{♄}$ 02'47		minimum elong	-2319 Sep 05 j 02:30	23° $\text{♄}$ 04'55	2°11'52
opposition	-2325 Dec 24 j 09:09	14° $\text{♄}$ 37'41	0°-3'-10	max. Earth dist.	-2319 Sep 05 j 02:12	23° $\text{♄}$ 04'49	10.97779 AU
min. Earth dist.	-2325 Dec 23 j 22:55	14° $\text{♄}$ 39'46	8.24558 AU	morning rise	-2319 Sep 21 j 19:40	25° $\text{♄}$ 02'38	
asc. node	-2324 Jan 22 j 11:36	12° $\text{♄}$ 27'04			-2319 Nov 10 j 09:54	0° $\text{♄}$	
direct	-2324 Mar 01 j 19:22	11° $\text{♄}$ 08'41		retrograde	-2319 Dec 29 j 12:47	1° $\text{♄}$ 58'23	
evening set	-2324 Jun 16 j 03:22	19° $\text{♄}$ 11'36			-2318 Feb 18 j 13:54	30° $\text{♄}$	
				opposition	-2318 Mar 08 j 14:38	28° $\text{♄}$ 41'21	2°46'54
conjunction	-2324 Jul 04 j 02:32	21° $\text{♄}$ 26'39	0°14'18	min. Earth dist.	-2318 Mar 08 j 15:12	28° $\text{♄}$ 41'15	9.02855 AU
minimum elong	-2324 Jul 04 j 02:31	21° $\text{♄}$ 26'39	0°14'21	direct	-2318 May 19 j 02:41	25° $\text{♄}$ 19'01	
behind sun begin	-2324 Jul 03 j 23:20	21° $\text{♄}$ 25'39			-2318 Aug 08 j 02:28	0° $\text{♄}$	
behind sun end	-2324 Jul 04 j 05:41	21° $\text{♄}$ 27'38		evening set	-2318 Aug 30 j 22:39	2° $\text{♄}$ 30'08	
max. Earth dist.	-2324 Jul 04 j 14:31	21° $\text{♄}$ 30'25	10.31344 AU				
morning rise	-2324 Jul 21 j 21:21	23° $\text{♄}$ 40'20		conjunction	-2318 Sep 16 j 16:16	4° $\text{♄}$ 26'59	2°20'14
	-2324 Sep 22 j 11:30	0° $\text{♄}$		minimum elong	-2318 Sep 16 j 16:15	4° $\text{♄}$ 26'59	2°20'15
retrograde	-2324 Oct 30 j 21:51	1° $\text{♄}$ 19'26		max. Earth dist.	-2318 Sep 16 j 13:57	4° $\text{♄}$ 26'19	11.07096 AU
	-2324 Dec 09 j 00:17	30° $\text{♄}$		morning rise	-2318 Oct 03 j 05:47	6° $\text{♄}$ 22'43	
opposition	-2323 Jan 05 j 19:33	27° $\text{♄}$ 56'01	0°37'17	retrograde	-2317 Jan 10 j 00:51	13° $\text{♄}$ 14'35	
min. Earth dist.	-2323 Jan 05 j 10:08	27° $\text{♄}$ 57'54	8.38216 AU	opposition	-2317 Mar 20 j 12:59	9° $\text{♄}$ 58'12	2°53'33
direct	-2323 Mar 15 j 22:15	24° $\text{♄}$ 27'47		min. Earth dist.	-2317 Mar 20 j 16:15	9° $\text{♄}$ 57'35	9.11099 AU
	-2323 Jun 10 j 00:23	0° $\text{♄}$		direct	-2317 May 31 j 04:47	6° $\text{♄}$ 37'03	
evening set	-2323 Jun 30 j 02:58	2° $\text{♄}$ 21'36		evening set	-2317 Sep 11 j 09:19	13° $\text{♄}$ 42'16	
conjunction	-2323 Jul 17 j 21:38	4° $\text{♄}$ 33'16	0°45'56	conjunction	-2317 Sep 27 j 23:36	15° $\text{♄}$ 37'30	2°23'06
minimum elong	-2323 Jul 17 j 21:35	4° $\text{♄}$ 33'15	0°46'00	minimum elong	-2317 Sep 27 j 23:36	15° $\text{♄}$ 37'30	2°23'07
max. Earth dist.	-2323 Jul 18 j 08:09	4° $\text{♄}$ 36'32	10.45421 AU	max. Earth dist.	-2317 Sep 27 j 18:12	15° $\text{♄}$ 35'55	11.14126 AU
morning rise	-2323 Aug 04 j 11:15	6° $\text{♄}$ 43'24		morning rise	-2317 Oct 14 j 10:42	17° $\text{♄}$ 31'50	
retrograde	-2323 Nov 12 j 16:31	14° $\text{♄}$ 11'04		retrograde	-2316 Jan 21 j 09:50	24° $\text{♄}$ 21'28	
opposition	-2322 Jan 18 j 22:17	10° $\text{♄}$ 49'16	1°14'29	opposition	-2316 Mar 31 j 08:46	21° $\text{♄}$ 05'26	2°53'35
min. Earth dist.	-2322 Jan 18 j 14:40	10° $\text{♄}$ 50'46	8.52531 AU	min. Earth dist.	-2316 Mar 31 j 14:31	21° $\text{♄}$ 04'23	9.16911 AU
direct	-2322 Mar 29 j 15:47	7° $\text{♄}$ 22'01		direct	-2316 Jun 11 j 01:02	17° $\text{♄}$ 45'23	
evening set	-2322 Jul 13 j 14:33	15° $\text{♄}$ 06'23		evening set	-2316 Sep 21 j 14:42	24° $\text{♄}$ 45'56	
conjunction	-2322 Jul 31 j 03:53	17° $\text{♄}$ 14'33	1°14'25	conjunction	-2316 Oct 08 j 02:42	26° $\text{♄}$ 40'07	2°20'34
minimum elong	-2322 Jul 31 j 03:50	17° $\text{♄}$ 14'32	1°14'28	minimum elong	-2316 Oct 08 j 02:42	26° $\text{♄}$ 40'07	2°20'35
max. Earth dist.	-2322 Jul 31 j 12:04	17° $\text{♄}$ 17'03	10.59746 AU	max. Earth dist.	-2316 Oct 07 j 18:41	26° $\text{♄}$ 37'47	11.18637 AU
morning rise	-2322 Aug 17 j 11:55	19° $\text{♄}$ 21'07		morning rise	-2316 Oct 24 j 12:22	28° $\text{♄}$ 33'38	
retrograde	-2322 Nov 25 j 01:54	26° $\text{♄}$ 38'30			-2316 Nov 06 j 11:12	0° $\text{♄}$	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 8

Attention, astronomical year style is used: The year -2315 in astronomical counting style is the year 2316 BCE in historical counting style.

retrograde	-2315 Jan 31 j 19:04	5°♂22'43		max. Earth dist.	-2310 Dec 12 j 14:27	3°♂30'51	10.90295 AU
opposition	-2315 Apr 12 j 03:01	2°♂06'44	2°47'15	morning rise	-2310 Dec 29 j 21:45	5°♂34'33	
min. Earth dist.	-2315 Apr 12 j 10:12	2°♂05'26	9.20091 AU	retrograde	-2309 Apr 12 j 11:45	12°♂54'14	
	-2315 May 13 j 11:38	30°♂		opposition	-2309 Jun 22 j 08:37	9°♂32'50	0°19'05
direct	-2315 Jun 22 j 19:20	28°♂47'36		min. Earth dist.	-2309 Jun 22 j 19:22	9°♂30'49	8.84083 AU
	-2315 Aug 01 j 04:14	0°♂		direct	-2309 Aug 30 j 16:59	6°♂14'13	
evening set	-2315 Oct 02 j 16:28	5°♂44'49		evening set	-2309 Dec 08 j 06:25	13°♂22'34	
				max. Earth dist.	-2309 Dec 24 j 11:23	15°♂19'49	10.77595 AU
conjunction	-2315 Oct 19 j 03:14	7°♂38'31	2°12'53	conjunction	-2309 Dec 25 j 00:53	15°♂23'54	0°01'03
minimum elong	-2315 Oct 19 j 03:16	7°♂38'32	2°12'52	minimum elong	-2309 Dec 25 j 00:52	15°♂23'54	0°00'59
max. Earth dist.	-2315 Oct 18 j 18:17	7°♂35'55	11.20474 AU	behind sun begin	-2309 Dec 24 j 17:51	15°♂21'48	
morning rise	-2315 Nov 04 j 12:17	9°♂31'48		behind sun end	-2309 Dec 25 j 07:54	15°♂26'01	
retrograde	-2314 Feb 12 j 07:48	16°♂21'58		desc. node	-2308 Jan 06 j 21:15	16°♂57'12	
opposition	-2314 Apr 23 j 21:26	13°♂05'46	2°34'51	morning rise	-2308 Jan 10 j 22:57	17°♂26'24	
min. Earth dist.	-2314 Apr 24 j 05:36	13°♂04'17	9.20534 AU	retrograde	-2308 Apr 24 j 10:15	24°♂56'31	
direct	-2314 Jul 04 j 10:00	9°♂47'24		opposition	-2308 Jul 04 j 02:21	21°♂33'29	0°-17'-30
evening set	-2314 Oct 13 j 16:21	16°♂42'35		min. Earth dist.	-2308 Jul 04 j 13:03	21°♂31'27	8.70601 AU
				direct	-2308 Sep 10 j 19:55	18°♂14'00	
conjunction	-2314 Oct 30 j 02:42	18°♂36'21	2°00'18	evening set	-2308 Dec 19 j 10:49	25°♂29'59	
minimum elong	-2314 Oct 30 j 02:45	18°♂36'22	2°00'17				
max. Earth dist.	-2314 Oct 29 j 16:26	18°♂33'22	11.19574 AU	conjunction	-2307 Jan 05 j 08:14	27°♂34'00	0°-28'-59
morning rise	-2314 Nov 15 j 12:08	20°♂29'58		minimum elong	-2307 Jan 05 j 08:13	27°♂34'00	0°29'04
retrograde	-2313 Feb 23 j 20:53	27°♂22'52		max. Earth dist.	-2307 Jan 04 j 19:48	27°♂30'11	10.63530 AU
opposition	-2313 May 05 j 17:03	24°♂06'09	2°16'46	morning rise	-2307 Jan 22 j 10:00	29°♂39'23	
min. Earth dist.	-2313 May 06 j 02:48	24°♂04'22	9.18234 AU		-2307 Jan 25 j 06:37	0°♂	
direct	-2313 Jul 15 j 21:26	20°♂48'16		retrograde	-2307 May 07 j 18:53	7°♂21'05	
evening set	-2313 Oct 24 j 16:28	27°♂42'56		opposition	-2307 Jul 17 j 03:23	3°♂56'19	0°-54'-31
				min. Earth dist.	-2307 Jul 17 j 12:50	3°♂54'30	8.56108 AU
conjunction	-2313 Nov 10 j 03:06	29°♂37'18	1°43'14	direct	-2307 Sep 23 j 07:29	0°♂35'45	
minimum elong	-2313 Nov 10 j 03:09	29°♂37'18	1°43'13	evening set	-2306 Jan 01 j 02:14	8°♂00'45	
max. Earth dist.	-2313 Nov 09 j 14:50	29°♂33'43	11.15973 AU				
	-2313 Nov 13 j 08:55	0°♂		conjunction	-2306 Jan 18 j 03:02	10°♂07'42	0°-58'-28
morning rise	-2313 Nov 26 j 13:58	1°♂31'46		minimum elong	-2306 Jan 18 j 03:00	10°♂07'41	0°58'33
retrograde	-2312 Mar 06 j 14:51	8°♂28'58		max. Earth dist.	-2306 Jan 17 j 17:06	10°♂04'36	10.48782 AU
opposition	-2312 May 16 j 14:44	5°♂11'28	1°53'30	morning rise	-2306 Feb 04 j 08:30	12°♂16'10	
min. Earth dist.	-2312 May 17 j 02:04	5°♂09'24	9.13265 AU	retrograde	-2306 May 21 j 14:26	20°♂09'59	
direct	-2312 Jul 26 j 11:31	1°♂53'48		opposition	-2306 Jul 30 j 12:11	16°♂43'28	-1°-30'-11
evening set	-2312 Nov 03 j 18:24	8°♂49'29		min. Earth dist.	-2306 Jul 30 j 19:14	16°♂42'05	8.41334 AU
				direct	-2306 Oct 06 j 01:39	13°♂21'38	
conjunction	-2312 Nov 20 j 06:10	10°♂44'56	1°22'08	evening set	-2305 Jan 14 j 05:59	20°♂56'46	
minimum elong	-2312 Nov 20 j 06:12	10°♂44'57	1°22'06				
max. Earth dist.	-2312 Nov 19 j 17:05	10°♂41'05	11.09772 AU	conjunction	-2305 Jan 31 j 10:20	23°♂06'45	-1°-25'-53
morning rise	-2312 Dec 06 j 19:05	12°♂40'47		minimum elong	-2305 Jan 31 j 10:17	23°♂06'44	1°25'57
	-2312 Dec 27 j 19:50	15°♂		max. Earth dist.	-2305 Jan 31 j 03:25	23°♂04'33	10.34102 AU
retrograde	-2311 Mar 18 j 13:34	19°♂43'55		morning rise	-2305 Feb 17 j 19:33	25°♂18'22	
opposition	-2311 May 28 j 15:51	16°♂25'20	1°25'37		-2305 Mar 31 j 11:13	0°♂	
min. Earth dist.	-2311 May 29 j 03:21	16°♂23'13	9.05763 AU	retrograde	-2305 Jun 04 j 19:22	3°♂24'12	
	-2311 Jun 17 j 15:31	15°♂			-2305 Aug 12 j 08:45	30°♂	
direct	-2311 Aug 07 j 02:09	13°♂07'38		opposition	-2305 Aug 13 j 04:47	29°♂56'01	-2°-2'-23
	-2311 Sep 24 j 12:39	15°♂		min. Earth dist.	-2305 Aug 13 j 08:50	29°♂55'13	8.27041 AU
evening set	-2311 Nov 14 j 23:58	20°♂05'53		direct	-2305 Oct 19 j 04:56	26°♂32'46	
					-2305 Dec 21 j 13:48	0°♂	
conjunction	-2311 Dec 01 j 13:35	22°♂02'53	0°57'34	evening set	-2304 Jan 27 j 22:46	4°♂18'41	
minimum elong	-2311 Dec 01 j 13:37	22°♂02'53	0°57'31				
max. Earth dist.	-2311 Dec 01 j 00:55	21°♂59'07	11.01131 AU	conjunction	-2304 Feb 14 j 06:43	6°♂31'43	-1°-49'-30
morning rise	-2311 Dec 18 j 05:00	24°♂00'31		minimum elong	-2304 Feb 14 j 06:39	6°♂31'42	1°49'33
	-2310 Feb 20 j 04:35	0°♂		max. Earth dist.	-2304 Feb 14 j 02:34	6°♂30'23	10.20278 AU
retrograde	-2310 Mar 30 j 20:46	1°♂11'12		morning rise	-2304 Mar 02 j 19:39	8°♂46'24	
	-2310 May 09 j 09:24	30°♂			-2304 Apr 29 j 20:51	15°♂	
opposition	-2310 Jun 09 j 21:30	27°♂51'17	0°53'51	retrograde	-2304 Jun 18 j 08:49	17°♂03'17	
min. Earth dist.	-2310 Jun 10 j 08:29	27°♂49'15	8.95941 AU		-2304 Aug 07 j 19:37	15°♂	
direct	-2310 Aug 18 j 20:39	24°♂33'16		opposition	-2304 Aug 26 j 04:44	13°♂33'41	-2°-28'-53
	-2310 Nov 12 j 12:23	0°♂		min. Earth dist.	-2304 Aug 26 j 06:04	13°♂33'25	8.14019 AU
evening set	-2310 Nov 26 j 11:24	1°♂35'42		direct	-2304 Oct 31 j 17:23	10°♂08'57	
					-2303 Jan 15 j 16:45	15°♂	
conjunction	-2310 Dec 13 j 03:16	3°♂34'41	0°30'14	evening set	-2303 Feb 10 j 04:20	18°♂05'39	
minimum elong	-2310 Dec 13 j 03:17	3°♂34'41	0°30'11				

Attention, astronomical year style is used: The year -2303 in astronomical counting style is the year 2304 BCE in historical counting style.

conjunction	-2303 Feb 27 j 16:03	20° $\approx$ 21'36	-2°-7'-32	minimum elong	-2297 May 30 j 03:54	17° $\approx$ 28'07	1°07'11
minimum elong	-2303 Feb 27 j 16:01	20° $\approx$ 21'35	2°07'35	max. Earth dist.	-2297 May 30 j 19:26	17° $\approx$ 33'11	10.00851 AU
max. Earth dist.	-2303 Feb 27 j 14:59	20° $\approx$ 21'15	10.08121 AU	morning rise	-2297 Jun 17 j 07:10	19° $\approx$ 49'07	
morning rise	-2303 Mar 17 j 08:44	22° $\approx$ 39'08		retrograde	-2297 Sep 29 j 00:34	27° $\approx$ 58'43	
	-2303 May 28 j 23:49	0° $\approx$		opposition	-2297 Dec 04 j 09:35	24° $\approx$ 30'40	-1°-4'-21
retrograde	-2303 Jul 03 j 05:26	1° $\approx$ 05'12		min. Earth dist.	-2297 Dec 03 j 21:49	24° $\approx$ 33'06	8.05736 AU
	-2303 Aug 07 j 15:30	30° $\approx$		direct	-2296 Feb 09 j 19:19	21° $\approx$ 00'29	
opposition	-2303 Sep 09 j 11:20	27° $\approx$ 34'29	-2°-47'-25	evening set	-2296 May 26 j 00:46	29° $\approx$ 15'23	
min. Earth dist.	-2303 Sep 09 j 10:11	27° $\approx$ 34'43	8.03046 AU		-2296 May 31 j 21:14	0° $\approx$	
direct	-2303 Nov 14 j 14:47	24° $\approx$ 08'16					
	-2302 Feb 06 j 21:43	0° $\approx$		conjunction	-2296 Jun 13 j 04:38	1° $\approx$ 34'56	0°-35'00
evening set	-2302 Feb 24 j 21:36	2° $\approx$ 14'57		minimum elong	-2296 Jun 13 j 04:40	1° $\approx$ 34'56	0°34'58
				max. Earth dist.	-2296 Jun 13 j 20:05	1° $\approx$ 39'54	10.11296 AU
conjunction	-2302 Mar 14 j 13:19	4° $\approx$ 33'31	-2°-18'-21	morning rise	-2296 Jul 01 j 05:30	3° $\approx$ 53'29	
minimum elong	-2302 Mar 14 j 13:18	4° $\approx$ 33'31	2°18'22	retrograde	-2296 Oct 11 j 19:50	11° $\approx$ 51'08	
max. Earth dist.	-2302 Mar 14 j 15:41	4° $\approx$ 34'18	9.98380 AU	opposition	-2296 Dec 17 j 07:36	8° $\approx$ 24'49	0°-23'-2
morning rise	-2302 Apr 01 j 09:36	6° $\approx$ 53'33		min. Earth dist.	-2296 Dec 16 j 20:37	8° $\approx$ 27'04	8.17312 AU
retrograde	-2302 Jul 18 j 06:29	15° $\approx$ 25'56		direct	-2295 Feb 23 j 08:54	4° $\approx$ 55'11	
opposition	-2302 Sep 23 j 22:56	11° $\approx$ 54'30	-2°-56'-3	evening set	-2295 Jun 09 j 17:32	13° $\approx$ 02'36	
min. Earth dist.	-2302 Sep 23 j 19:25	11° $\approx$ 55'14	7.94805 AU				
direct	-2302 Nov 28 j 21:51	8° $\approx$ 26'55		conjunction	-2295 Jun 27 j 18:33	15° $\approx$ 19'19	0°-1'-33
evening set	-2301 Mar 12 j 00:49	16° $\approx$ 41'57		minimum elong	-2295 Jun 27 j 18:33	15° $\approx$ 19'20	0°01'30
				behind sun begin	-2295 Jun 27 j 11:14	15° $\approx$ 17'02	
conjunction	-2301 Mar 29 j 20:34	19° $\approx$ 02'42	-2°-20'-43	behind sun end	-2295 Jun 28 j 01:52	15° $\approx$ 21'38	
minimum elong	-2301 Mar 29 j 20:35	19° $\approx$ 02'42	2°20'44	max. Earth dist.	-2295 Jun 28 j 08:22	15° $\approx$ 23'42	10.23920 AU
max. Earth dist.	-2301 Mar 30 j 02:27	19° $\approx$ 04'39	9.91686 AU	asc. node	-2295 Jul 14 j 22:40	17° $\approx$ 29'29	
morning rise	-2301 Apr 16 j 20:04	21° $\approx$ 24'38		morning rise	-2295 Jul 15 j 15:41	17° $\approx$ 34'47	
retrograde	-2301 Aug 02 j 08:22	29° $\approx$ 59'41		retrograde	-2295 Oct 25 j 03:55	25° $\approx$ 20'07	
opposition	-2301 Oct 08 j 13:28	26° $\approx$ 28'01	-2°-53'-33	opposition	-2295 Dec 30 j 21:56	21° $\approx$ 55'42	0°18'19
min. Earth dist.	-2301 Oct 08 j 07:37	26° $\approx$ 29'15	7.89835 AU	min. Earth dist.	-2295 Dec 30 j 12:05	21° $\approx$ 57'41	8.30721 AU
direct	-2301 Dec 13 j 12:21	22° $\approx$ 59'17		direct	-2294 Mar 09 j 16:06	18° $\approx$ 26'54	
	-2300 Mar 16 j 00:15	0° $\approx$		evening set	-2294 Jun 23 j 23:18	26° $\approx$ 25'39	
evening set	-2300 Mar 26 j 10:54	1° $\approx$ 20'14					
				conjunction	-2294 Jul 11 j 20:10	28° $\approx$ 39'04	0°31'12
conjunction	-2300 Apr 13 j 10:25	3° $\approx$ 42'31	-2°-14'-7	minimum elong	-2294 Jul 11 j 20:09	28° $\approx$ 39'04	0°31'15
minimum elong	-2300 Apr 13 j 10:28	3° $\approx$ 42'32	2°14'06	max. Earth dist.	-2294 Jul 12 j 07:42	28° $\approx$ 42'41	10.37958 AU
max. Earth dist.	-2300 Apr 13 j 19:53	3° $\approx$ 45'40	9.88499 AU		-2294 Jul 22 j 15:12	0° $\approx$	
morning rise	-2300 May 01 j 12:32	6° $\approx$ 05'37		morning rise	-2294 Jul 29 j 12:32	0° $\approx$ 51'03	
retrograde	-2300 Aug 16 j 08:42	14° $\approx$ 39'24		retrograde	-2294 Nov 07 j 02:44	8° $\approx$ 24'31	
opposition	-2300 Oct 22 j 04:54	11° $\approx$ 07'58	-2°-39'-44	opposition	-2293 Jan 13 j 04:41	5° $\approx$ 01'57	0°57'21
min. Earth dist.	-2300 Oct 21 j 20:33	11° $\approx$ 09'43	7.88479 AU	min. Earth dist.	-2293 Jan 12 j 19:54	5° $\approx$ 03'42	8.45181 AU
direct	-2300 Dec 27 j 07:44	7° $\approx$ 38'22		direct	-2293 Mar 23 j 14:40	1° $\approx$ 34'17	
evening set	-2299 Apr 11 j 00:13	16° $\approx$ 02'13		evening set	-2293 Jul 07 j 17:01	9° $\approx$ 23'38	
conjunction	-2299 Apr 29 j 02:53	18° $\approx$ 25'14	-1°-58'-47	conjunction	-2293 Jul 25 j 08:53	11° $\approx$ 33'34	1°01'23
minimum elong	-2299 Apr 29 j 02:56	18° $\approx$ 25'15	1°58'46	minimum elong	-2293 Jul 25 j 08:50	11° $\approx$ 33'33	1°01'26
max. Earth dist.	-2299 Apr 29 j 15:28	18° $\approx$ 29'24	9.89041 AU	max. Earth dist.	-2293 Jul 25 j 18:20	11° $\approx$ 36'29	10.52630 AU
morning rise	-2299 May 17 j 06:44	20° $\approx$ 48'37		morning rise	-2293 Aug 11 j 19:48	13° $\approx$ 41'55	
retrograde	-2299 Aug 31 j 04:42	29° $\approx$ 17'18		retrograde	-2293 Nov 19 j 16:53	21° $\approx$ 04'30	
opposition	-2299 Nov 05 j 18:46	25° $\approx$ 46'34	-2°-15'-30	opposition	-2292 Jan 26 j 03:53	17° $\approx$ 43'41	1°32'13
min. Earth dist.	-2299 Nov 05 j 08:23	25° $\approx$ 48'44	7.90827 AU	min. Earth dist.	-2292 Jan 25 j 20:13	17° $\approx$ 45'11	8.59921 AU
direct	-2298 Jan 11 j 05:00	22° $\approx$ 16'24		direct	-2292 Apr 05 j 04:19	14° $\approx$ 17'18	
	-2298 Apr 21 j 08:19	0° $\approx$		evening set	-2292 Jul 19 j 22:47	21° $\approx$ 57'09	
evening set	-2298 Apr 26 j 13:26	0° $\approx$ 40'04					
				conjunction	-2292 Aug 06 j 09:17	24° $\approx$ 03'35	1°27'46
conjunction	-2298 May 14 j 18:05	3° $\approx$ 02'53	-1°-35'-53	minimum elong	-2292 Aug 06 j 09:14	24° $\approx$ 03'34	1°27'49
minimum elong	-2298 May 14 j 18:09	3° $\approx$ 02'54	1°35'51	max. Earth dist.	-2292 Aug 06 j 16:50	24° $\approx$ 05'53	10.67190 AU
max. Earth dist.	-2298 May 15 j 08:43	3° $\approx$ 07'42	9.93260 AU	morning rise	-2292 Aug 23 j 14:32	26° $\approx$ 08'27	
morning rise	-2298 Jun 01 j 22:25	5° $\approx$ 25'33			-2292 Sep 27 j 20:44	0° $\approx$	
retrograde	-2298 Sep 14 j 18:27	13° $\approx$ 45'51		retrograde	-2292 Nov 30 j 22:35	3° $\approx$ 21'25	
opposition	-2298 Nov 20 j 04:50	10° $\approx$ 16'17	-1°-42'-49	opposition	-2291 Feb 06 j 19:55	0° $\approx$ 02'09	2°01'38
min. Earth dist.	-2298 Nov 19 j 17:17	10° $\approx$ 18'41	7.96713 AU	min. Earth dist.	-2291 Feb 06 j 14:24	0° $\approx$ 03'13	8.74214 AU
direct	-2297 Jan 26 j 01:11	6° $\approx$ 45'55			-2291 Feb 07 j 07:06	30° $\approx$	
evening set	-2297 May 11 j 22:44	15° $\approx$ 06'28		direct	-2291 Apr 18 j 09:17	26° $\approx$ 37'06	
	-2297 May 11 j 02:29	15° $\approx$			-2291 Jun 24 j 05:33	0° $\approx$	
				evening set	-2291 Aug 01 j 17:07	4° $\approx$ 07'48	
conjunction	-2297 May 30 j 03:51	17° $\approx$ 28'06	-1°-7'-13				

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodiens AG 7-Dez-2017 14:42, page 10

Attention, astronomical year style is used: The year -2291 in astronomical counting style is the year 2292 BCE in historical counting style.

conjunction	-2291 Aug 18 j 22:11	6°♈10'56	1°49'28	conjunction	-2285 Oct 25 j 12:37	13°♊51'51	2°06'34
minimum elong	-2291 Aug 18 j 22:08	6°♈10'56	1°49'30	minimum elong	-2285 Oct 25 j 12:39	13°♊51'52	2°06'33
max. Earth dist.	-2291 Aug 19 j 03:11	6°♈12'27	10.80947 AU	max. Earth dist.	-2285 Oct 25 j 00:49	13°♊48'26	11.19733 AU
morning rise	-2291 Sep 04 j 22:01	8°♈12'35		morning rise	-2285 Nov 10 j 21:59	15°♊45'21	
	-2291 Nov 24 j 15:10	15°♈		retrograde	-2284 Feb 18 j 22:56	22°♊37'06	
retrograde	-2291 Dec 12 j 22:27	15°♈17'26		opposition	-2284 Apr 29 j 17:15	19°♊20'33	2°25'40
	-2291 Dec 31 j 07:22	15°♈		min. Earth dist.	-2284 Apr 30 j 03:49	19°♊18'37	9.18820 AU
opposition	-2290 Feb 19 j 05:52	11°♈59'30	2°24'49	direct	-2284 Jul 10 j 01:59	16°♊02'14	
min. Earth dist.	-2290 Feb 19 j 03:19	11°♈59'59	8.87398 AU	evening set	-2284 Oct 19 j 02:14	22°♊57'22	
direct	-2290 May 01 j 05:18	8°♈35'46					
	-2290 Aug 05 j 14:40	15°♈		conjunction	-2284 Nov 04 j 12:48	24°♊51'31	1°51'31
evening set	-2290 Aug 14 j 00:46	15°♈57'55		minimum elong	-2284 Nov 04 j 12:51	24°♊51'31	1°51'29
				max. Earth dist.	-2284 Nov 04 j 00:29	24°♊47'55	11.16931 AU
conjunction	-2290 Aug 31 j 00:35	17°♈58'09	2°05'56	morning rise	-2284 Nov 20 j 22:57	26°♊45'37	
minimum elong	-2290 Aug 31 j 00:32	17°♈58'08	2°05'58		-2284 Dec 21 j 09:44	0°♈	
max. Earth dist.	-2290 Aug 31 j 01:53	17°♈58'32	10.93286 AU	retrograde	-2283 Mar 01 j 16:13	3°♈41'00	
morning rise	-2290 Sep 16 j 19:42	19°♈57'00		opposition	-2283 May 11 j 13:56	0°♈23'34	2°04'44
retrograde	-2290 Dec 24 j 14:13	26°♈55'22		min. Earth dist.	-2283 May 12 j 00:55	0°♈21'33	9.14628 AU
opposition	-2289 Mar 03 j 10:27	23°♈38'27	2°41'21		-2283 May 16 j 23:03	30°♈	
min. Earth dist.	-2289 Mar 03 j 10:49	23°♈38'23	8.98884 AU	direct	-2283 Jul 21 j 16:19	27°♈05'26	
direct	-2289 May 13 j 17:47	20°♈16'00			-2283 Sep 21 j 09:14	0°♈	
evening set	-2289 Aug 25 j 23:00	27°♈30'32		evening set	-2283 Oct 30 j 03:16	4°♈00'52	
conjunction	-2289 Sep 11 j 18:17	29°♈28'19	2°16'55	conjunction	-2283 Nov 15 j 14:38	5°♈55'54	1°32'12
minimum elong	-2289 Sep 11 j 18:15	29°♈28'19	2°16'56	minimum elong	-2283 Nov 15 j 14:40	5°♈55'55	1°32'10
max. Earth dist.	-2289 Sep 11 j 15:52	29°♈27'37	11.03675 AU	max. Earth dist.	-2283 Nov 15 j 01:41	5°♈52'06	11.11485 AU
	-2289 Sep 16 j 06:00	0°♈		morning rise	-2283 Dec 02 j 02:26	7°♈51'11	
morning rise	-2289 Sep 28 j 09:32	1°♈24'56		retrograde	-2282 Mar 13 j 12:45	14°♈51'47	
retrograde	-2288 Jan 05 j 03:13	8°♈18'34		opposition	-2282 May 23 j 13:41	11°♈33'14	1°38'53
opposition	-2288 Mar 14 j 10:37	5°♈02'22	2°51'08	min. Earth dist.	-2282 May 24 j 01:21	11°♈31'06	9.07873 AU
min. Earth dist.	-2288 Mar 14 j 13:06	5°♈01'55	9.08176 AU	direct	-2282 Aug 02 j 05:08	8°♈15'03	
direct	-2288 May 25 j 00:56	1°♈41'06			-2282 Nov 08 j 12:07	15°♈	
evening set	-2288 Sep 05 j 13:15	8°♈49'11		evening set	-2282 Nov 10 j 07:04	15°♈12'23	
conjunction	-2288 Sep 22 j 05:02	10°♈45'06	2°22'20	conjunction	-2282 Nov 26 j 19:47	17°♈08'46	1°09'08
minimum elong	-2288 Sep 22 j 05:01	10°♈45'06	2°22'21	minimum elong	-2282 Nov 26 j 19:50	17°♈08'47	1°09'06
max. Earth dist.	-2288 Sep 22 j 00:19	10°♈43'44	11.11694 AU	max. Earth dist.	-2282 Nov 26 j 05:35	17°♈04'34	11.03590 AU
morning rise	-2288 Oct 08 j 17:14	12°♈40'02		morning rise	-2282 Dec 13 j 10:07	19°♈05'42	
retrograde	-2287 Jan 15 j 15:26	19°♈30'43		retrograde	-2281 Mar 25 j 15:26	26°♈13'12	
opposition	-2287 Mar 26 j 07:47	16°♈14'56	2°54'13	opposition	-2281 Jun 04 j 17:23	22°♈53'20	1°08'46
min. Earth dist.	-2287 Mar 26 j 12:21	16°♈14'05	9.14929 AU	min. Earth dist.	-2281 Jun 05 j 05:45	22°♈51'02	8.98789 AU
direct	-2287 Jun 06 j 00:28	12°♈54'44		direct	-2281 Aug 13 j 21:45	19°♈34'50	
evening set	-2287 Sep 16 j 21:27	19°♈57'35		evening set	-2281 Nov 21 j 15:44	26°♈35'42	
conjunction	-2287 Oct 03 j 10:34	21°♈52'14	2°22'17	conjunction	-2281 Dec 08 j 06:31	28°♈33'55	0°42'58
minimum elong	-2287 Oct 03 j 10:34	21°♈52'14	2°22'17	minimum elong	-2281 Dec 08 j 06:32	28°♈33'56	0°42'55
max. Earth dist.	-2287 Oct 03 j 03:40	21°♈50'13	11.17097 AU	max. Earth dist.	-2281 Dec 07 j 16:23	28°♈29'42	10.93500 AU
morning rise	-2287 Oct 19 j 20:39	23°♈46'06			-2281 Dec 20 j 07:45	0°♈	
	-2287 Dec 31 j 03:51	0°♈		morning rise	-2281 Dec 24 j 23:47	0°♈32'56	
retrograde	-2286 Jan 27 j 01:06	0°♈35'29		retrograde	-2280 Apr 06 j 01:26	7°♈48'50	
	-2286 Feb 23 j 08:25	30°♈		opposition	-2280 Jun 16 j 01:53	4°♈27'30	0°35'13
opposition	-2286 Apr 07 j 03:14	27°♈19'48	2°50'48	min. Earth dist.	-2280 Jun 16 j 13:48	4°♈25'16	8.87680 AU
min. Earth dist.	-2286 Apr 07 j 10:22	27°♈18'29	9.18987 AU	direct	-2280 Aug 24 j 17:33	1°♈08'29	
direct	-2286 Jun 17 j 19:05	24°♈00'28		evening set	-2280 Dec 02 j 07:04	8°♈14'36	
	-2286 Sep 19 j 05:00	0°♈		max. Earth dist.	-2280 Dec 18 j 11:45	10°♈11'11	10.81556 AU
evening set	-2286 Sep 28 j 01:17	0°♈59'23					
conjunction	-2286 Oct 14 j 12:32	2°♈53'18	2°16'56	conjunction	-2280 Dec 19 j 00:27	10°♈15'01	0°14'30
minimum elong	-2286 Oct 14 j 12:33	2°♈53'19	2°16'56	minimum elong	-2280 Dec 19 j 00:27	10°♈15'01	0°14'26
max. Earth dist.	-2286 Oct 14 j 02:44	2°♈50'28	11.19790 AU	behind sun begin	-2280 Dec 18 j 21:08	10°♈14'02	
morning rise	-2286 Oct 30 j 21:45	4°♈46'42		behind sun end	-2280 Dec 19 j 03:46	10°♈16'00	
retrograde	-2285 Feb 07 j 11:28	11°♈36'27		morning rise	-2279 Jan 04 j 20:53	12°♈16'28	
opposition	-2285 Apr 18 j 22:05	8°♈20'30	2°41'10	retrograde	-2279 Apr 18 j 20:36	19°♈42'16	
min. Earth dist.	-2285 Apr 19 j 07:37	8°♈18'45	9.20292 AU	desc. node	-2279 Jun 21 j 00:35	16°♈53'58	
direct	-2285 Jun 29 j 11:28	5°♈01'48		opposition	-2279 Jun 28 j 16:38	16°♈19'19	0°00'44
evening set	-2285 Oct 09 j 02:13	11°♈58'06		min. Earth dist.	-2279 Jun 29 j 02:53	16°♈17'22	8.74944 AU
				direct	-2279 Sep 05 j 18:48	12°♈59'38	
				evening set	-2279 Dec 14 j 06:56	20°♈12'32	



## Planetary Phenomena of Saturn from -2400 through -1900 (UT), AstroDienst AG 7-Dez-2017 14:42, page 11

Attention, astronomical year style is used: The year -2279 in astronomical counting style is the year 2280 BCE in historical counting style.

conjunction	-2279 Dec 31 j 03:10	22°♄15'30	0°-15'-22	conjunction	-2272 Mar 22 j 08:01	12°♄45'46	-2°-20'-37
minimum elong	-2279 Dec 31 j 03:09	22°♄15'30	0°15'26	minimum elong	-2272 Mar 22 j 08:01	12°♄45'46	2°20'39
behind sun begin	-2279 Dec 31 j 00:57	22°♄14'50		max. Earth dist.	-2272 Mar 22 j 14:51	12°♄48'01	9.94996 AU
behind sun end	-2279 Dec 31 j 05:21	22°♄16'10		morning rise	-2272 Apr 09 j 05:51	15°♄06'51	
max. Earth dist.	-2279 Dec 30 j 15:43	22°♄12'00	10.68205 AU	retrograde	-2272 Jul 26 j 00:17	23°♄41'13	
morning rise	-2278 Jan 17 j 03:08	24°♄19'43		opposition	-2272 Oct 01 j 09:42	20°♄10'03	-2°-55'-52
	-2278 Mar 13 j 17:44	0°♄		min. Earth dist.	-2272 Oct 01 j 03:01	20°♄11'27	7.92568 AU
retrograde	-2278 May 02 j 02:36	1°♄56'36		direct	-2272 Dec 06 j 07:03	16°♄42'24	
	-2278 Jun 21 j 19:30	30°♄		evening set	-2271 Mar 19 j 21:42	25°♄00'48	
opposition	-2278 Jul 11 j 14:28	28°♄32'00	0°-37'-48	conjunction	-2271 Apr 06 j 19:29	27°♄22'22	-2°-18'-3
min. Earth dist.	-2278 Jul 11 j 23:00	28°♄30'22	8.61087 AU	minimum elong	-2271 Apr 06 j 19:31	27°♄22'23	2°18'03
direct	-2278 Sep 18 j 01:27	25°♄11'26		max. Earth dist.	-2271 Apr 07 j 05:21	27°♄25'38	9.90605 AU
	-2278 Dec 04 j 20:45	0°♄		morning rise	-2271 Apr 24 j 20:18	29°♄44'55	
evening set	-2278 Dec 26 j 17:21	2°♄32'40			-2271 Apr 26 j 18:53	0°♄	
conjunction	-2277 Jan 12 j 16:36	4°♄38'25	0°-45'-16	retrograde	-2271 Aug 10 j 02:13	8°♄19'34	
minimum elong	-2277 Jan 12 j 16:34	4°♄38'25	0°45'20	opposition	-2271 Oct 16 j 01:12	4°♄48'30	-2°-47'-3
max. Earth dist.	-2277 Jan 12 j 06:15	4°♄35'12	10.54004 AU	min. Earth dist.	-2271 Oct 15 j 16:44	4°♄50'16	7.89936 AU
morning rise	-2277 Jan 29 j 20:24	6°♄45'38		direct	-2271 Dec 21 j 00:11	1°♄19'53	
retrograde	-2277 May 15 j 18:01	14°♄34'20		evening set	-2270 Apr 04 j 10:13	9°♄42'22	
opposition	-2277 Jul 24 j 19:46	11°♄08'09	-1°-14'-20	conjunction	-2270 Apr 22 j 11:23	12°♄04'58	-2°-6'-32
min. Earth dist.	-2277 Jul 25 j 02:50	11°♄06'46	8.46719 AU	minimum elong	-2270 Apr 22 j 11:26	12°♄05'00	2°06'31
direct	-2277 Sep 30 j 14:29	7°♄46'30		max. Earth dist.	-2270 Apr 22 j 23:13	12°♄08'54	9.89772 AU
evening set	-2276 Jan 08 j 15:30	15°♄17'24		morning rise	-2270 May 10 j 14:28	14°♄28'10	
conjunction	-2276 Jan 25 j 18:05	17°♄26'06	-1°-13'-50	retrograde	-2270 Aug 25 j 00:46	22°♄59'07	
minimum elong	-2276 Jan 25 j 18:02	17°♄26'05	1°13'53	opposition	-2270 Oct 30 j 16:04	19°♄28'37	-2°-27'-19
max. Earth dist.	-2276 Jan 25 j 09:39	17°♄23'26	10.39602 AU	min. Earth dist.	-2270 Oct 30 j 06:44	19°♄30'34	7.90829 AU
morning rise	-2276 Feb 12 j 01:44	19°♄36'25		direct	-2269 Jan 04 j 21:01	15°♄59'15	
retrograde	-2276 May 28 j 17:29	27°♄37'13		evening set	-2269 Apr 19 j 23:57	24°♄22'49	
opposition	-2276 Aug 06 j 09:05	24°♄09'31	-1°-48'-23	conjunction	-2269 May 08 j 03:34	26°♄45'38	-1°-46'-51
min. Earth dist.	-2276 Aug 06 j 14:17	24°♄08'29	8.32530 AU	minimum elong	-2269 May 08 j 03:38	26°♄45'39	1°46'49
direct	-2276 Oct 12 j 14:51	20°♄46'41		max. Earth dist.	-2269 May 08 j 16:25	26°♄49'52	9.92427 AU
evening set	-2275 Jan 21 j 02:16	28°♄28'05		morning rise	-2269 May 26 j 07:48	29°♄08'33	
	-2275 Feb 02 j 04:09	0°♄			-2269 Jun 02 j 00:34	0°♄	
conjunction	-2275 Feb 07 j 08:26	0°♄39'49	-1°-39'-23	retrograde	-2269 Sep 08 j 17:23	7°♄32'29	
minimum elong	-2275 Feb 07 j 08:23	0°♄39'48	1°39'26	opposition	-2269 Nov 14 j 04:02	4°♄02'58	-1°-58'-9
max. Earth dist.	-2275 Feb 07 j 03:25	0°♄38'12	10.25727 AU	min. Earth dist.	-2269 Nov 13 j 18:08	4°♄05'02	7.95077 AU
morning rise	-2275 Feb 24 j 19:48	2°♄53'13		direct	-2268 Jan 19 j 18:33	0°♄33'13	
retrograde	-2275 Jun 12 j 02:56	11°♄05'37		evening set	-2268 May 04 j 11:17	8°♄55'04	
opposition	-2275 Aug 20 j 06:09	7°♄36'34	-2°-17'-44	conjunction	-2268 May 22 j 16:08	11°♄17'11	-1°-20'-31
min. Earth dist.	-2275 Aug 20 j 08:38	7°♄36'04	8.19279 AU	minimum elong	-2268 May 22 j 16:11	11°♄17'12	1°20'29
direct	-2275 Oct 26 j 00:03	4°♄12'30		max. Earth dist.	-2268 May 23 j 05:29	11°♄21'33	9.98332 AU
evening set	-2274 Feb 04 j 02:11	12°♄04'40		morning rise	-2268 Jun 09 j 20:09	13°♄38'56	
conjunction	-2274 Feb 21 j 12:13	14°♄19'22	-2°00'-8		-2268 Jun 20 j 13:14	15°♄	
minimum elong	-2274 Feb 21 j 12:10	14°♄19'21	2°00'11	retrograde	-2268 Sep 22 j 02:36	21°♄53'20	
max. Earth dist.	-2274 Feb 21 j 11:19	14°♄19'04	10.13166 AU	opposition	-2268 Nov 27 j 11:24	18°♄25'08	-1°-21'-56
	-2274 Feb 26 j 17:26	15°♄		min. Earth dist.	-2268 Nov 27 j 01:00	18°♄27'17	8.02428 AU
morning rise	-2274 Mar 11 j 03:13	16°♄35'43			-2267 Jan 24 j 11:14	15°♄	
retrograde	-2274 Jun 26 j 20:59	24°♄58'13		direct	-2267 Feb 02 j 15:06	14°♄55'19	
opposition	-2274 Sep 03 j 10:07	21°♄28'06	-2°-40'-5		-2267 Feb 11 j 18:55	15°♄	
min. Earth dist.	-2274 Sep 03 j 09:17	21°♄28'16	8.07741 AU	evening set	-2267 May 19 j 17:03	23°♄12'52	
direct	-2274 Nov 08 j 17:27	18°♄02'46		conjunction	-2267 Jun 06 j 21:36	25°♄33'22	0°-49'-36
evening set	-2273 Feb 18 j 14:43	26°♄05'17		minimum elong	-2267 Jun 06 j 21:38	25°♄33'23	0°49'34
conjunction	-2273 Mar 08 j 04:44	28°♄22'44	-2°-14'-22	max. Earth dist.	-2267 Jun 07 j 11:06	25°♄37'45	10.07170 AU
minimum elong	-2273 Mar 08 j 04:42	28°♄22'43	2°14'24	morning rise	-2267 Jun 24 j 23:54	27°♄53'05	
max. Earth dist.	-2273 Mar 08 j 07:48	28°♄23'44	10.02693 AU		-2267 Jul 12 j 04:04	0°♄	
	-2273 Mar 20 j 14:11	0°♄		retrograde	-2267 Oct 06 j 02:07	5°♄56'14	
morning rise	-2273 Mar 25 j 23:16	0°♄41'42		opposition	-2267 Dec 11 j 12:43	2°♄29'33	0°-41'-32
retrograde	-2273 Jul 11 j 21:33	9°♄11'49		min. Earth dist.	-2267 Dec 11 j 01:57	2°♄31'46	8.12492 AU
opposition	-2273 Sep 17 j 19:56	5°♄40'58	-2°-53'-19		-2266 Jan 14 j 12:28	30°♄	
min. Earth dist.	-2273 Sep 17 j 15:56	5°♄41'48	7.98636 AU	direct	-2266 Feb 17 j 07:39	29°♄00'01	
direct	-2273 Nov 22 j 19:53	2°♄14'26			-2266 Mar 22 j 23:23	0°♄	
evening set	-2272 Mar 04 j 14:04	10°♄25'58		evening set	-2266 Jun 03 j 14:43	7°♄11'05	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 12

Attention, astronomical year style is used: The year -2266 in astronomical counting style is the year 2267 BCE in historical counting style.

conjunction	-2266 Jun 21 j 17:16	9°II29'08	0°-16'-24	minimum elong	-2260 Sep 06 j 00:50	24°Ω40'33	2°12'51
minimum elong	-2266 Jun 21 j 17:17	9°II29'08	0°16'22	max. Earth dist.	-2260 Sep 06 j 01:09	24°Ω40'38	10.97684 AU
max. Earth dist.	-2266 Jun 22 j 06:33	9°II33'23	10.18432 AU	morning rise	-2260 Sep 22 j 17:44	26°Ω38'15	
morning rise	-2266 Jul 09 j 16:17	11°II46'03			-2260 Oct 23 j 23:42	0°൬	
retrograde	-2266 Oct 19 j 15:58	19°II37'08		retrograde	-2260 Dec 30 j 11:53	3°൬34'11	
asc. node	-2266 Dec 24 j 00:27	16°II18'18		opposition	-2259 Mar 09 j 13:32	0°൬17'10	2°47'49
opposition	-2266 Dec 25 j 06:55	16°II12'07	0°00'08	min. Earth dist.	-2259 Mar 09 j 14:34	0°൬16'59	9.02748 AU
min. Earth dist.	-2266 Dec 24 j 20:33	16°II14'13	8.24684 AU		-2259 Mar 13 j 09:26	30°RΩ	
direct	-2265 Mar 03 j 17:40	12°II43'09		direct	-2259 May 20 j 01:25	26°Ω54'52	
evening set	-2265 Jun 18 j 02:01	20°II46'06			-2259 Jul 23 j 10:42	0°൬	
				evening set	-2259 Aug 31 j 21:10	4°൬06'03	
conjunction	-2265 Jul 06 j 01:04	23°II01'07	0°16'57				
minimum elong	-2265 Jul 06 j 01:03	23°II01'07	0°17'00	conjunction	-2259 Sep 17 j 14:32	6°൬02'53	2°20'42
max. Earth dist.	-2265 Jul 06 j 13:28	23°II05'01	10.31451 AU	minimum elong	-2259 Sep 17 j 14:31	6°൬02'53	2°20'44
morning rise	-2265 Jul 23 j 19:36	25°II14'44		max. Earth dist.	-2259 Sep 17 j 11:44	6°൬02'04	11.06973 AU
	-2265 Sep 04 j 17:34	0°ଓ		morning rise	-2259 Oct 04 j 04:00	7°൬58'37	
retrograde	-2265 Nov 01 j 20:39	2°ଓ53'48		retrograde	-2258 Jan 10 j 23:04	14°൬50'38	
	-2264 Jan 01 j 13:20	30°RII		opposition	-2258 Mar 21 j 11:59	11°൬34'14	2°53'49
opposition	-2264 Jan 07 j 17:36	29°II30'27	0°40'30	min. Earth dist.	-2258 Mar 21 j 15:38	11°൬33'33	9.10970 AU
min. Earth dist.	-2264 Jan 07 j 08:39	29°II32'14	8.38301 AU	direct	-2258 Jun 01 j 03:07	8°൬13'07	
direct	-2264 Mar 16 j 19:18	26°II02'17		evening set	-2258 Sep 12 j 07:45	15°൬18'20	
	-2264 May 27 j 04:03	0°ଓ					
evening set	-2264 Jul 01 j 01:33	3°ଓ56'10		conjunction	-2258 Sep 28 j 21:51	17°൬13'33	2°23'03
				minimum elong	-2258 Sep 28 j 21:51	17°൬13'33	2°23'04
conjunction	-2264 Jul 18 j 19:56	6°ଓ07'47	0°48'27	max. Earth dist.	-2258 Sep 28 j 16:10	17°൬11'54	11.13986 AU
minimum elong	-2264 Jul 18 j 19:54	6°ଓ07'47	0°48'30	morning rise	-2258 Oct 15 j 08:57	19°൬07'55	
max. Earth dist.	-2264 Jul 19 j 06:14	6°ଓ10'59	10.45481 AU	retrograde	-2257 Jan 22 j 08:01	25°൬57'43	
morning rise	-2264 Aug 05 j 09:17	8°ଓ17'51		opposition	-2257 Apr 02 j 07:50	22°൬41'38	2°53'13
retrograde	-2264 Nov 13 j 15:01	15°ଓ45'34		min. Earth dist.	-2257 Apr 02 j 13:00	22°൬40'41	9.16764 AU
opposition	-2263 Jan 19 j 20:31	12°ଓ23'51	1°17'27	direct	-2257 Jun 13 j 01:03	19°൬21'35	
min. Earth dist.	-2263 Jan 19 j 13:37	12°ଓ25'13	8.52578 AU	evening set	-2257 Sep 23 j 12:56	26°൬22'06	
direct	-2263 Mar 30 j 13:31	8°ଓ56'39					
evening set	-2263 Jul 14 j 13:10	16°ଓ41'09		conjunction	-2257 Oct 10 j 00:58	28°൬16'18	2°20'00
				minimum elong	-2257 Oct 10 j 00:59	28°൬16'18	2°20'00
conjunction	-2263 Aug 01 j 02:10	18°ଓ49'16	1°16'41	max. Earth dist.	-2257 Oct 09 j 17:53	28°൬14'14	11.18488 AU
minimum elong	-2263 Aug 01 j 02:07	18°ଓ49'15	1°16'43		-2257 Oct 25 j 00:01	0°ଓ	
max. Earth dist.	-2263 Aug 01 j 09:25	18°ଓ51'29	10.59769 AU	morning rise	-2257 Oct 26 j 10:33	0°ଓ09'50	
morning rise	-2263 Aug 18 j 10:02	20°ଓ55'48		retrograde	-2256 Feb 02 j 19:11	6°ଓ59'04	
retrograde	-2263 Nov 25 j 22:52	28°ଓ13'16		opposition	-2256 Apr 13 j 02:12	3°ଓ43'01	2°46'15
opposition	-2262 Feb 01 j 15:55	24°ଓ53'03	1°49'27	min. Earth dist.	-2256 Apr 13 j 08:35	3°ଓ41'51	9.19937 AU
min. Earth dist.	-2262 Feb 01 j 11:01	24°ଓ54'00	8.66779 AU	direct	-2256 Jun 23 j 18:24	0°ଓ23'55	
direct	-2262 Apr 13 j 00:06	21°ଓ26'59		evening set	-2256 Oct 03 j 14:36	7°ଓ21'01	
evening set	-2262 Jul 27 j 12:50	29°ଓ02'11					
	-2262 Aug 04 j 14:38	0°Ω		conjunction	-2256 Oct 20 j 01:26	9°ଓ14'45	2°11'48
				minimum elong	-2256 Oct 20 j 01:27	9°ଓ14'45	2°11'48
conjunction	-2262 Aug 13 j 20:16	1°Ω06'54	1°40'33	max. Earth dist.	-2256 Oct 19 j 17:02	9°ଓ12'19	11.20321 AU
minimum elong	-2262 Aug 13 j 20:12	1°Ω06'53	1°40'36	morning rise	-2256 Nov 05 j 10:29	11°ଓ08'04	
max. Earth dist.	-2262 Aug 14 j 00:31	1°Ω08'11	10.73622 AU	retrograde	-2255 Feb 13 j 05:53	17°ଓ58'21	
morning rise	-2262 Aug 30 j 22:43	3°Ω10'05		opposition	-2255 Apr 24 j 20:39	14°ଓ42'04	2°33'16
retrograde	-2262 Dec 08 j 00:56	10°Ω18'48		min. Earth dist.	-2255 Apr 25 j 04:55	14°ଓ40'34	9.20382 AU
opposition	-2261 Feb 14 j 04:42	6°Ω59'52	2°15'30	direct	-2255 Jul 05 j 07:30	11°ଓ23'41	
min. Earth dist.	-2261 Feb 14 j 01:11	7°Ω00'32	8.80237 AU	evening set	-2255 Oct 14 j 14:30	18°ଓ18'48	
direct	-2261 Apr 26 j 01:07	3°Ω35'03					
evening set	-2261 Aug 09 j 01:03	11°Ω01'22		conjunction	-2255 Oct 31 j 00:49	20°ଓ12'35	1°58'46
				minimum elong	-2255 Oct 31 j 00:51	20°ଓ12'36	1°58'45
conjunction	-2261 Aug 26 j 03:16	13°Ω03'01	1°59'24	max. Earth dist.	-2255 Oct 30 j 14:08	20°ଓ09'29	11.19431 AU
minimum elong	-2261 Aug 26 j 03:14	13°Ω03'00	1°59'26	morning rise	-2255 Nov 16 j 10:27	22°ଓ06'14	
max. Earth dist.	-2261 Aug 26 j 05:38	13°Ω03'43	10.86432 AU	retrograde	-2254 Feb 24 j 20:02	28°ଓ59'13	
	-2261 Sep 11 j 13:35	15°Ω		opposition	-2254 May 06 j 16:17	25°ଓ42'27	2°14'39
morning rise	-2261 Sep 12 j 00:36	15°Ω03'13		min. Earth dist.	-2254 May 07 j 02:19	25°ଓ40'37	9.18097 AU
retrograde	-2261 Dec 19 j 20:41	22°Ω04'44		direct	-2254 Jul 16 j 21:12	22°ଓ24'32	
opposition	-2260 Feb 26 j 11:35	18°Ω46'52	2°35'02	evening set	-2254 Oct 25 j 14:30	29°ଓ19'06	
min. Earth dist.	-2260 Feb 26 j 09:55	18°Ω47'11	8.92382 AU		-2254 Oct 31 j 12:47	0°൬	
direct	-2260 May 07 j 16:31	15°Ω23'19					
evening set	-2260 Aug 20 j 03:22	22°Ω41'34		conjunction	-2254 Nov 11 j 01:12	1°൬13'30	1°41'18
				minimum elong	-2254 Nov 11 j 01:15	1°൬13'30	1°41'16
conjunction	-2260 Sep 06 j 00:52	24°Ω40'33	2°12'50	max. Earth dist.	-2254 Nov 10 j 13:10	1°൬09'59	11.15854 AU

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 13

Attention, astronomical year style is used: The year -2254 in astronomical counting style is the year 2255 BCE in historical counting style.

morning rise	-2254 Nov 27 j 12:15	3°♄08'01		conjunction	-2247 Jan 19 j 01:22	11°♄42'41	-1°00'-54
retrograde	-2253 Mar 08 j 12:48	10°♄05'19		minimum elong	-2247 Jan 19 j 01:20	11°♄42'41	1°00'58
opposition	-2253 May 18 j 13:59	6°♄47'44	1°50'55	max. Earth dist.	-2247 Jan 18 j 15:57	11°♄39'45	10.49140 AU
min. Earth dist.	-2253 May 19 j 00:44	6°♄45'46	9.13157 AU	morning rise	-2247 Feb 05 j 06:49	13°♄51'06	
direct	-2253 Jul 28 j 10:15	3°♄30'03		retrograde	-2247 May 22 j 12:55	21°♄44'45	
evening set	-2253 Nov 05 j 16:18	10°♄25'36		opposition	-2247 Jul 31 j 10:28	18°♄18'15	-1°-32'-59
				min. Earth dist.	-2247 Jul 31 j 16:52	18°♄17'00	8.41714 AU
conjunction	-2253 Nov 22 j 04:19	12°♄21'05	1°19'51	direct	-2247 Oct 06 j 23:50	14°♄56'29	
minimum elong	-2253 Nov 22 j 04:21	12°♄21'06	1°19'49	evening set	-2246 Jan 15 j 04:10	22°♄31'25	
max. Earth dist.	-2253 Nov 21 j 16:25	12°♄17'36	11.09685 AU				
morning rise	-2253 Dec 08 j 17:19	14°♄16'58		conjunction	-2246 Feb 01 j 08:29	24°♄41'22	-1°-27'-59
	-2253 Dec 15 j 00:27	15°♄		minimum elong	-2246 Feb 01 j 08:26	24°♄41'21	1°28'02
retrograde	-2252 Mar 19 j 13:10	21°♄20'13		max. Earth dist.	-2246 Feb 01 j 01:09	24°♄39'02	10.34487 AU
opposition	-2252 May 29 j 15:02	18°♄01'32	1°22'40	morning rise	-2246 Feb 18 j 17:47	26°♄52'55	
min. Earth dist.	-2252 May 30 j 01:28	17°♄59'37	9.05698 AU		-2246 Mar 17 j 03:37	0°≈	
	-2252 Jul 20 j 18:58	15°♄		retrograde	-2246 Jun 05 j 18:11	4°≈58'34	
direct	-2252 Aug 08 j 01:50	14°♄43'51		opposition	-2246 Aug 14 j 02:55	1°≈30'27	-2°-4'-42
	-2252 Aug 26 j 02:21	15°♄		min. Earth dist.	-2246 Aug 14 j 07:00	1°≈29'38	8.27435 AU
evening set	-2252 Nov 15 j 22:02	21°♄41'57			-2246 Sep 02 j 18:19	30°♄	
				direct	-2246 Oct 20 j 02:23	28°♄07'15	
conjunction	-2252 Dec 02 j 11:47	23°♄38'59	0°55'02		-2246 Dec 04 j 22:38	0°≈	
minimum elong	-2252 Dec 02 j 11:49	23°♄38'59	0°54'59	evening set	-2245 Jan 28 j 20:58	5°≈53'01	
max. Earth dist.	-2252 Dec 01 j 23:31	23°♄35'21	11.01098 AU				
morning rise	-2252 Dec 19 j 03:20	25°♄36'39		conjunction	-2245 Feb 15 j 04:53	8°≈05'59	-1°-51'-8
	-2251 Jan 30 j 09:10	0°♄		minimum elong	-2245 Feb 15 j 04:50	8°≈05'58	1°51'11
retrograde	-2251 Mar 31 j 20:27	2°♄47'22		max. Earth dist.	-2245 Feb 14 j 23:51	8°≈04'21	10.20677 AU
	-2251 Jun 03 j 12:08	30°♄		morning rise	-2245 Mar 04 j 18:00	10°≈20'38	
opposition	-2251 Jun 10 j 20:35	29°♄27'25	0°50'38		-2245 Apr 14 j 06:22	15°≈	
min. Earth dist.	-2251 Jun 11 j 07:12	29°♄25'27	8.95947 AU	retrograde	-2245 Jun 20 j 07:38	18°≈37'17	
direct	-2251 Aug 19 j 18:02	26°♄09'25		opposition	-2245 Aug 28 j 02:38	15°≈07'46	-2°-30'-34
	-2251 Oct 29 j 05:57	0°♄		min. Earth dist.	-2245 Aug 28 j 04:39	15°≈07'21	8.14416 AU
evening set	-2251 Nov 27 j 09:34	3°♄11'42			-2245 Aug 29 j 17:04	15°♄	
				direct	-2245 Nov 02 j 14:29	11°≈43'04	
conjunction	-2251 Dec 14 j 01:26	5°♄10'41	0°27'33		-2244 Jan 02 j 20:38	15°≈	
minimum elong	-2251 Dec 14 j 01:27	5°♄10'41	0°27'30	evening set	-2244 Feb 12 j 02:29	19°≈39'40	
max. Earth dist.	-2251 Dec 13 j 12:20	5°♄06'46	10.90360 AU				
morning rise	-2251 Dec 30 j 20:11	7°♄10'35		conjunction	-2244 Feb 29 j 14:16	21°≈55'33	-2°-8'-37
retrograde	-2250 Apr 13 j 09:24	14°♄30'15		minimum elong	-2244 Feb 29 j 14:13	21°≈55'32	2°08'39
opposition	-2250 Jun 23 j 07:44	11°♄08'49	0°15'44	max. Earth dist.	-2244 Feb 29 j 12:36	21°≈55'00	10.08514 AU
min. Earth dist.	-2250 Jun 23 j 18:41	11°♄06'46	8.84211 AU	morning rise	-2244 Mar 18 j 07:05	24°≈13'03	
direct	-2250 Aug 31 j 15:40	7°♄50'11			-2244 May 09 j 00:19	0°♄	
desc. node	-2250 Dec 04 j 05:43	14°♄23'23		retrograde	-2244 Jul 04 j 03:34	2°♄38'50	
evening set	-2250 Dec 09 j 04:32	14°♄58'22			-2244 Aug 30 j 17:16	30°♄	
				opposition	-2244 Sep 10 j 08:59	29°≈08'13	-2°-48'-21
conjunction	-2250 Dec 25 j 23:03	16°♄59'41	0°-1'-45	min. Earth dist.	-2244 Sep 10 j 08:30	29°≈08'19	8.03431 AU
minimum elong	-2250 Dec 25 j 23:04	16°♄59'41	0°01'50	direct	-2244 Nov 15 j 13:05	25°≈42'04	
behind sun begin	-2250 Dec 25 j 16:02	16°♄57'35			-2243 Jan 25 j 05:22	0°♄	
behind sun end	-2250 Dec 26 j 06:06	17°♄01'48		evening set	-2243 Feb 25 j 19:34	3°♄48'38	
max. Earth dist.	-2250 Dec 25 j 10:05	16°♄55'46	10.77794 AU				
morning rise	-2249 Jan 11 j 21:19	19°♄02'10		conjunction	-2243 Mar 15 j 11:25	6°♄07'10	-2°-18'-48
retrograde	-2249 Apr 26 j 08:32	26°♄32'13		minimum elong	-2243 Mar 15 j 11:24	6°♄07'09	2°18'49
opposition	-2249 Jul 06 j 01:16	23°♄09'08	0°-20'-50	max. Earth dist.	-2243 Mar 15 j 13:46	6°♄07'56	9.98755 AU
min. Earth dist.	-2249 Jul 06 j 11:50	23°♄07'08	8.70861 AU	morning rise	-2243 Apr 02 j 07:46	8°♄27'08	
direct	-2249 Sep 12 j 19:45	19°♄49'40		retrograde	-2243 Jul 19 j 03:02	16°♄59'14	
evening set	-2249 Dec 21 j 08:58	27°♄05'24		opposition	-2243 Sep 24 j 20:18	13°♄27'54	-2°-56'-11
				min. Earth dist.	-2243 Sep 24 j 17:00	13°♄28'35	7.95169 AU
conjunction	-2248 Jan 07 j 06:36	29°♄09'24	0°-31'-38	direct	-2243 Nov 29 j 20:33	10°♄00'24	
minimum elong	-2248 Jan 07 j 06:35	29°♄09'24	0°31'42	evening set	-2242 Mar 12 j 22:36	18°♄15'16	
max. Earth dist.	-2248 Jan 06 j 19:11	29°♄05'53	10.63834 AU				
	-2248 Jan 14 j 02:57	0°♄		conjunction	-2242 Mar 30 j 18:35	20°♄36'01	-2°-20'-31
morning rise	-2248 Jan 24 j 08:23	1°♄14'46		minimum elong	-2242 Mar 30 j 18:36	20°♄36'01	2°20'32
retrograde	-2248 May 08 j 17:52	8°♄56'17		max. Earth dist.	-2242 Mar 31 j 00:56	20°♄38'07	9.92038 AU
opposition	-2248 Jul 18 j 01:54	5°♄31'31	0°-57'-40	morning rise	-2242 Apr 17 j 18:06	22°♄57'54	
min. Earth dist.	-2248 Jul 18 j 10:41	5°♄29'50	8.56451 AU		-2242 Jun 22 j 15:44	0°♄	
direct	-2248 Sep 24 j 05:35	2°♄11'00		retrograde	-2242 Aug 03 j 04:33	1°♄32'39	
evening set	-2247 Jan 02 j 00:28	9°♄35'47			-2242 Sep 14 j 03:56	30°♄	
				opposition	-2242 Oct 09 j 10:31	28°♄01'04	-2°-52'-53

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 14

Attention, astronomical year style is used: The year -2242 in astronomical counting style is the year 2243 BCE in historical counting style.

min. Earth dist.	-2242 Oct 09 j 04:25	28° $\text{K}$ 02'20	7.90169 AU	max. Earth dist.	-2236 Jun 29 j 04:13	16° $\text{II}$ 54'40	10.23877 AU
direct	-2242 Dec 14 j 09:51	24° $\text{K}$ 32'24		morning rise	-2236 Jul 16 j 12:30	19° $\text{II}$ 06'03	
	-2241 Mar 05 j 05:00	0° $\text{Y}$		retrograde	-2236 Oct 25 j 23:50	26° $\text{II}$ 51'19	
evening set	-2241 Mar 28 j 08:38	2° $\text{Y}$ 53'12		opposition	-2236 Dec 31 j 18:16	23° $\text{II}$ 26'52	0°21'24
				min. Earth dist.	-2236 Dec 31 j 08:15	23° $\text{II}$ 28'53	8.30639 AU
conjunction	-2241 Apr 15 j 08:24	5° $\text{Y}$ 15'29	-2°-13'-16	direct	-2235 Mar 10 j 12:54	19° $\text{II}$ 58'02	
minimum elong	-2241 Apr 15 j 08:27	5° $\text{Y}$ 15'30	2°13'16	evening set	-2235 Jun 24 j 20:09	27° $\text{II}$ 56'49	
max. Earth dist.	-2241 Apr 15 j 18:22	5° $\text{Y}$ 18'48	9.88814 AU		-2235 Jul 11 j 08:16	0° $\text{E}$	
morning rise	-2241 May 03 j 10:30	7° $\text{Y}$ 38'32					
retrograde	-2241 Aug 18 j 05:27	16° $\text{Y}$ 12'00		conjunction	-2235 Jul 12 j 16:55	0° $\text{E}$ 10'14	0°33'38
opposition	-2241 Oct 24 j 01:42	12° $\text{Y}$ 40'39	-2°-38'-17	minimum elong	-2235 Jul 12 j 16:54	0° $\text{E}$ 10'14	0°33'41
min. Earth dist.	-2241 Oct 23 j 17:04	12° $\text{Y}$ 42'27	7.88766 AU	max. Earth dist.	-2235 Jul 13 j 04:19	0° $\text{E}$ 13'48	10.37833 AU
direct	-2241 Dec 29 j 03:56	9° $\text{Y}$ 11'05		morning rise	-2235 Jul 30 j 09:07	2° $\text{E}$ 22'10	
evening set	-2240 Apr 11 j 21:52	17° $\text{Y}$ 34'49		retrograde	-2235 Nov 07 j 23:24	9° $\text{E}$ 55'40	
				opposition	-2234 Jan 14 j 01:03	6° $\text{E}$ 33'04	1°00'16
conjunction	-2240 Apr 30 j 00:39	19° $\text{Y}$ 57'49	-1°-57'-22	min. Earth dist.	-2234 Jan 13 j 15:52	6° $\text{E}$ 34'53	8.45015 AU
minimum elong	-2240 Apr 30 j 00:43	19° $\text{Y}$ 57'51	1°57'21	direct	-2234 Mar 24 j 11:15	3° $\text{E}$ 05'20	
max. Earth dist.	-2240 Apr 30 j 13:26	20° $\text{Y}$ 02'04	9.89303 AU	evening set	-2234 Jul 08 j 13:55	10° $\text{E}$ 54'49	
morning rise	-2240 May 18 j 04:27	22° $\text{Y}$ 21'10					
	-2240 Aug 02 j 07:03	0° $\text{E}$		conjunction	-2234 Jul 26 j 05:41	13° $\text{E}$ 04'43	1°03'38
retrograde	-2240 Sep 01 j 02:21	0° $\text{E}$ 49'32		minimum elong	-2234 Jul 26 j 05:38	13° $\text{E}$ 04'43	1°03'41
	-2240 Sep 30 j 23:58	30° $\text{R}$ $\text{Y}$		max. Earth dist.	-2234 Jul 26 j 15:37	13° $\text{E}$ 07'47	10.52425 AU
opposition	-2240 Nov 06 j 15:24	27° $\text{Y}$ 18'52	-2°-13'-24	morning rise	-2234 Aug 12 j 16:17	15° $\text{E}$ 13'03	
min. Earth dist.	-2240 Nov 06 j 05:10	27° $\text{Y}$ 21'00	7.91057 AU	retrograde	-2234 Nov 20 j 13:23	22° $\text{E}$ 35'45	
direct	-2239 Jan 12 j 00:32	23° $\text{Y}$ 48'43		opposition	-2233 Jan 27 j 00:26	19° $\text{E}$ 14'53	1°34'50
	-2239 Apr 09 j 20:27	0° $\text{E}$		min. Earth dist.	-2233 Jan 26 j 16:55	19° $\text{E}$ 16'22	8.59682 AU
evening set	-2239 Apr 27 j 10:53	2° $\text{E}$ 12'17		direct	-2233 Apr 07 j 01:15	15° $\text{E}$ 48'27	
				evening set	-2233 Jul 21 j 19:46	23° $\text{E}$ 28'29	
conjunction	-2239 May 15 j 15:34	4° $\text{E}$ 35'05	-1°-33'-59				
minimum elong	-2239 May 15 j 15:38	4° $\text{E}$ 35'06	1°33'58	conjunction	-2233 Aug 08 j 06:03	25° $\text{E}$ 34'53	1°29'43
max. Earth dist.	-2239 May 16 j 05:55	4° $\text{E}$ 39'48	9.93463 AU	minimum elong	-2233 Aug 08 j 06:00	25° $\text{E}$ 34'52	1°29'46
morning rise	-2239 Jun 02 j 19:52	6° $\text{E}$ 57'44		max. Earth dist.	-2233 Aug 08 j 13:52	25° $\text{E}$ 37'16	10.66922 AU
	-2239 Aug 28 j 23:41	15° $\text{E}$		morning rise	-2233 Aug 25 j 11:00	27° $\text{E}$ 39'43	
retrograde	-2239 Sep 15 j 16:38	15° $\text{E}$ 17'44			-2233 Sep 14 j 21:03	0° $\text{E}$	
	-2239 Oct 03 j 08:01	15° $\text{R}$ $\text{E}$		retrograde	-2233 Dec 02 j 20:08	4° $\text{E}$ 52'52	
opposition	-2239 Nov 21 j 01:21	11° $\text{E}$ 48'13	-1°-40'-13	opposition	-2232 Feb 08 j 16:53	1° $\text{E}$ 33'35	2°03'50
min. Earth dist.	-2239 Nov 20 j 14:30	11° $\text{E}$ 50'28	7.96879 AU	min. Earth dist.	-2232 Feb 08 j 12:00	1° $\text{E}$ 34'31	8.73935 AU
direct	-2238 Jan 26 j 21:58	8° $\text{E}$ 17'49			-2232 Feb 29 j 18:17	30° $\text{R}$ $\text{E}$	
	-2238 Apr 29 j 17:47	15° $\text{E}$		direct	-2232 Apr 19 j 05:31	28° $\text{E}$ 08'29	
evening set	-2238 May 12 j 20:02	16° $\text{E}$ 38'20			-2232 Jun 06 j 19:59	0° $\text{E}$	
				evening set	-2232 Aug 02 j 14:03	5° $\text{E}$ 39'21	
conjunction	-2238 May 31 j 01:05	18° $\text{E}$ 59'56	-1°-4'-59				
minimum elong	-2238 May 31 j 01:08	18° $\text{E}$ 59'57	1°04'57	conjunction	-2232 Aug 19 j 18:48	7° $\text{E}$ 42'29	1°51'03
max. Earth dist.	-2238 May 31 j 15:48	19° $\text{E}$ 04'43	10.00982 AU	minimum elong	-2232 Aug 19 j 18:45	7° $\text{E}$ 42'28	1°51'05
morning rise	-2238 Jun 18 j 04:26	21° $\text{E}$ 20'57		max. Earth dist.	-2232 Aug 19 j 23:16	7° $\text{E}$ 43'49	10.80653 AU
retrograde	-2238 Sep 29 j 20:56	29° $\text{E}$ 30'17		morning rise	-2232 Sep 05 j 18:31	9° $\text{E}$ 44'07	
opposition	-2238 Dec 05 j 06:00	26° $\text{E}$ 02'16	-1°-1'-25		-2232 Oct 28 j 04:33	15° $\text{E}$	
min. Earth dist.	-2238 Dec 04 j 19:14	26° $\text{E}$ 04'30	8.05827 AU	retrograde	-2232 Dec 13 j 18:16	16° $\text{E}$ 49'11	
direct	-2237 Feb 10 j 17:00	22° $\text{E}$ 32'02			-2231 Jan 30 j 22:09	15° $\text{R}$ $\text{E}$	
	-2237 May 21 j 15:51	0° $\text{E}$		opposition	-2231 Feb 20 j 03:02	13° $\text{E}$ 31'13	2°26'31
evening set	-2237 May 27 j 22:02	0° $\text{E}$ 46'58		min. Earth dist.	-2231 Feb 20 j 00:39	13° $\text{E}$ 31'40	8.87116 AU
				direct	-2231 May 02 j 02:01	10° $\text{E}$ 07'28	
conjunction	-2237 Jun 15 j 01:44	3° $\text{E}$ 06'27	0°-32'-34		-2231 Jul 23 j 11:16	15° $\text{E}$	
minimum elong	-2237 Jun 15 j 01:46	3° $\text{E}$ 06'28	0°32'32	evening set	-2231 Aug 14 j 21:48	17° $\text{E}$ 29'48	
max. Earth dist.	-2237 Jun 15 j 15:51	3° $\text{E}$ 11'00	10.11341 AU				
morning rise	-2237 Jul 03 j 02:36	5° $\text{E}$ 24'59		conjunction	-2231 Aug 31 j 21:22	19° $\text{E}$ 30'00	2°07'05
retrograde	-2237 Oct 13 j 15:01	13° $\text{E}$ 22'27		minimum elong	-2231 Aug 31 j 21:19	19° $\text{E}$ 30'00	2°07'07
opposition	-2237 Dec 19 j 03:56	9° $\text{E}$ 56'10	0°-19'-56	max. Earth dist.	-2231 Aug 31 j 22:21	19° $\text{E}$ 30'18	10.93014 AU
min. Earth dist.	-2237 Dec 18 j 17:32	9° $\text{E}$ 58'18	8.17317 AU	morning rise	-2231 Sep 17 j 16:24	21° $\text{E}$ 28'52	
direct	-2236 Feb 25 j 06:37	6° $\text{E}$ 26'28		retrograde	-2231 Dec 25 j 11:12	28° $\text{E}$ 27'29	
evening set	-2236 Jun 10 j 14:35	14° $\text{E}$ 33'56		opposition	-2230 Mar 04 j 07:45	25° $\text{E}$ 10'32	2°42'30
asc. node	-2236 Jun 17 j 09:41	15° $\text{E}$ 25'03		min. Earth dist.	-2230 Mar 04 j 07:21	25° $\text{E}$ 10'36	8.98644 AU
				direct	-2230 May 14 j 16:38	21° $\text{E}$ 48'05	
conjunction	-2236 Jun 28 j 15:26	16° $\text{E}$ 50'37	0°01'02	evening set	-2230 Aug 26 j 20:02	29° $\text{E}$ 02'44	
minimum elong	-2236 Jun 28 j 15:26	16° $\text{E}$ 50'37	0°01'04		-2230 Sep 04 j 01:18	0° $\text{E}$	
behind sun begin	-2236 Jun 28 j 08:08	16° $\text{E}$ 48'20					
behind sun end	-2236 Jun 28 j 22:44	16° $\text{E}$ 52'55		conjunction	-2230 Sep 12 j 15:14	1° $\text{E}$ 00'31	2°17'35

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 15

Attention, astronomical year style is used: The year -2230 in astronomical counting style is the year 2231 BCE in historical counting style.

minimum elong	-2230 Sep 12 j 15:13	1° $\mathring{M}$ 00'30	2°17'37	max. Earth dist.	-2224 Nov 15 j 22:06	7° $\mathring{M}$ 24'41	11.11678 AU
max. Earth dist.	-2230 Sep 12 j 13:45	1° $\mathring{M}$ 00'04	11.03478 AU	morning rise	-2224 Dec 02 j 23:36	9° $\mathring{M}$ 23'56	
morning rise	-2230 Sep 29 j 06:17	2° $\mathring{M}$ 57'06			-2223 Jan 31 j 03:01	15° $\mathring{M}$	
retrograde	-2229 Jan 06 j 01:27	9° $\mathring{M}$ 50'56		retrograde	-2223 Mar 14 j 10:03	16° $\mathring{M}$ 24'33	
opposition	-2229 Mar 16 j 08:14	6° $\mathring{M}$ 34'42	2°51'40		-2223 Apr 26 j 22:04	15° $\mathring{R}$ $\mathring{M}$	
min. Earth dist.	-2229 Mar 16 j 09:50	6° $\mathring{M}$ 34'24	9.08025 AU	opposition	-2223 May 24 j 11:31	13° $\mathring{M}$ 06'04	1°36'12
direct	-2229 May 26 j 21:58	3° $\mathring{M}$ 13'29		min. Earth dist.	-2223 May 24 j 23:39	13° $\mathring{M}$ 03'50	9.08076 AU
evening set	-2229 Sep 07 j 10:15	10° $\mathring{M}$ 21'31		direct	-2223 Aug 03 j 03:02	9° $\mathring{M}$ 47'57	
					-2223 Oct 26 j 13:04	15° $\mathring{M}$	
conjunction	-2229 Sep 24 j 01:57	12° $\mathring{M}$ 17'27	2°22'31	evening set	-2223 Nov 11 j 03:54	16° $\mathring{M}$ 45'07	
minimum elong	-2229 Sep 24 j 01:56	12° $\mathring{M}$ 17'26	2°22'32				
max. Earth dist.	-2229 Sep 23 j 22:15	12° $\mathring{M}$ 16'22	11.11597 AU	conjunction	-2223 Nov 27 j 16:42	18° $\mathring{M}$ 41'31	1°06'49
morning rise	-2229 Oct 10 j 13:57	14° $\mathring{M}$ 12'22		minimum elong	-2223 Nov 27 j 16:44	18° $\mathring{M}$ 41'32	1°06'47
retrograde	-2228 Jan 17 j 12:30	21° $\mathring{M}$ 03'10		max. Earth dist.	-2223 Nov 27 j 02:44	18° $\mathring{M}$ 37'23	11.03812 AU
opposition	-2228 Mar 27 j 05:37	17° $\mathring{M}$ 47'22	2°54'08	morning rise	-2223 Dec 14 j 07:12	20° $\mathring{M}$ 38'28	
min. Earth dist.	-2228 Mar 27 j 10:10	17° $\mathring{M}$ 46'32	9.14880 AU	retrograde	-2222 Mar 26 j 12:41	27° $\mathring{M}$ 45'56	
direct	-2228 Jun 06 j 21:18	14° $\mathring{M}$ 27'13		opposition	-2222 Jun 05 j 15:06	24° $\mathring{M}$ 26'06	1°05'48
evening set	-2228 Sep 17 j 18:28	21° $\mathring{M}$ 30'00		min. Earth dist.	-2222 Jun 06 j 03:10	24° $\mathring{M}$ 23'52	8.99019 AU
				direct	-2222 Aug 14 j 19:23	21° $\mathring{M}$ 07'41	
conjunction	-2228 Oct 04 j 07:24	23° $\mathring{M}$ 24'37	2°21'57	evening set	-2222 Nov 22 j 12:27	28° $\mathring{M}$ 08'22	
minimum elong	-2228 Oct 04 j 07:25	23° $\mathring{M}$ 24'37	2°21'57		-2222 Dec 08 j 05:25	0° $\mathring{A}$	
max. Earth dist.	-2228 Oct 04 j 00:21	23° $\mathring{M}$ 22'34	11.17092 AU				
morning rise	-2228 Oct 20 j 17:32	25° $\mathring{M}$ 18'29		conjunction	-2222 Dec 09 j 03:26	0° $\mathring{A}$ 06'34	0°40'27
	-2228 Dec 06 j 22:54	0° $\mathring{A}$		minimum elong	-2222 Dec 09 j 03:27	0° $\mathring{A}$ 06'35	0°40'25
retrograde	-2227 Jan 27 j 22:22	2° $\mathring{A}$ 07'58		max. Earth dist.	-2222 Dec 08 j 14:20	0° $\mathring{A}$ 02'40	10.93743 AU
	-2227 Mar 23 j 06:55	30° $\mathring{R}$ $\mathring{M}$		morning rise	-2222 Dec 25 j 20:44	2° $\mathring{A}$ 05'35	
opposition	-2227 Apr 08 j 01:01	28° $\mathring{M}$ 52'17	2°50'06	retrograde	-2221 Apr 07 j 22:55	9° $\mathring{A}$ 21'27	
min. Earth dist.	-2227 Apr 08 j 08:23	28° $\mathring{M}$ 50'56	9.19021 AU	opposition	-2221 Jun 17 j 23:27	6° $\mathring{A}$ 00'06	0°32'05
direct	-2227 Jun 18 j 16:32	25° $\mathring{M}$ 33'00		min. Earth dist.	-2221 Jun 18 j 10:30	5° $\mathring{A}$ 58'02	8.87932 AU
	-2227 Sep 05 j 12:45	0° $\mathring{A}$		direct	-2221 Aug 26 j 15:30	2° $\mathring{A}$ 41'10	
evening set	-2227 Sep 28 j 22:14	2° $\mathring{A}$ 31'50		evening set	-2221 Dec 04 j 03:47	9° $\mathring{A}$ 47'02	
conjunction	-2227 Oct 15 j 09:24	4° $\mathring{A}$ 25'45	2°16'07	conjunction	-2221 Dec 20 j 21:16	11° $\mathring{A}$ 47'28	0°11'55
minimum elong	-2227 Oct 15 j 09:25	4° $\mathring{A}$ 25'46	2°16'06	minimum elong	-2221 Dec 20 j 21:17	11° $\mathring{A}$ 47'28	0°11'52
max. Earth dist.	-2227 Oct 14 j 23:34	4° $\mathring{A}$ 22'54	11.19856 AU	behind sun begin	-2221 Dec 20 j 16:20	11° $\mathring{A}$ 45'59	
morning rise	-2227 Oct 31 j 18:43	6° $\mathring{A}$ 19'09		behind sun end	-2221 Dec 21 j 02:14	11° $\mathring{A}$ 48'57	
retrograde	-2226 Feb 08 j 07:59	13° $\mathring{A}$ 09'00		max. Earth dist.	-2221 Dec 20 j 08:54	11° $\mathring{A}$ 43'44	10.81814 AU
opposition	-2226 Apr 19 j 19:52	9° $\mathring{A}$ 53'03	2°39'53	morning rise	-2220 Jan 06 j 17:49	13° $\mathring{A}$ 48'54	
min. Earth dist.	-2226 Apr 20 j 04:47	9° $\mathring{A}$ 51'25	9.20380 AU	retrograde	-2220 Apr 19 j 19:19	21° $\mathring{A}$ 14'35	
direct	-2226 Jun 30 j 09:21	6° $\mathring{A}$ 34'26		desc. node	-2220 May 20 j 04:44	20° $\mathring{A}$ 30'36	
evening set	-2226 Oct 09 j 23:03	13° $\mathring{A}$ 30'38		opposition	-2220 Jun 29 j 13:58	17° $\mathring{A}$ 51'39	0°-3'-54
				min. Earth dist.	-2220 Jun 29 j 23:51	17° $\mathring{A}$ 49'47	8.75208 AU
conjunction	-2226 Oct 26 j 09:33	15° $\mathring{A}$ 24'24	2°05'17	direct	-2220 Sep 06 j 15:26	14° $\mathring{A}$ 32'00	
minimum elong	-2226 Oct 26 j 09:36	15° $\mathring{A}$ 24'25	2°05'16	evening set	-2220 Dec 15 j 03:40	21° $\mathring{A}$ 44'40	
max. Earth dist.	-2226 Oct 25 j 22:50	15° $\mathring{A}$ 21'17	11.19847 AU				
morning rise	-2226 Nov 11 j 18:52	17° $\mathring{A}$ 17'54		conjunction	-2220 Dec 31 j 23:51	23° $\mathring{A}$ 47'36	0°-17'-54
retrograde	-2225 Feb 19 j 22:08	24° $\mathring{A}$ 09'45		minimum elong	-2220 Dec 31 j 23:51	23° $\mathring{A}$ 47'36	0°17'59
opposition	-2225 May 01 j 15:07	20° $\mathring{A}$ 53'13	2°23'50	max. Earth dist.	-2220 Dec 31 j 11:46	23° $\mathring{A}$ 43'54	10.68473 AU
min. Earth dist.	-2225 May 02 j 00:44	20° $\mathring{A}$ 51'28	9.18949 AU	morning rise	-2219 Jan 18 j 00:01	25° $\mathring{A}$ 51'48	
direct	-2225 Jul 12 j 00:29	17° $\mathring{A}$ 35'02			-2219 Feb 24 j 17:12	0° $\mathring{B}$	
evening set	-2225 Oct 20 j 23:06	24° $\mathring{A}$ 30'00		retrograde	-2219 May 02 j 23:45	3° $\mathring{B}$ 28'31	
				opposition	-2219 Jul 12 j 11:33	0° $\mathring{B}$ 03'56	0°-40'-52
conjunction	-2225 Nov 06 j 09:45	26° $\mathring{A}$ 24'10	1°49'49	min. Earth dist.	-2219 Jul 12 j 20:33	0° $\mathring{B}$ 02'12	8.61355 AU
minimum elong	-2225 Nov 06 j 09:48	26° $\mathring{A}$ 24'10	1°49'48		-2219 Jul 13 j 08:01	30° $\mathring{R}$ $\mathring{A}$	
max. Earth dist.	-2225 Nov 05 j 22:01	26° $\mathring{A}$ 20'44	11.17085 AU	direct	-2219 Sep 18 j 21:12	26° $\mathring{A}$ 43'21	
morning rise	-2225 Nov 22 j 19:58	28° $\mathring{A}$ 18'18			-2219 Nov 20 j 21:38	0° $\mathring{B}$	
	-2225 Dec 08 j 02:40	0° $\mathring{M}$		evening set	-2219 Dec 27 j 13:56	4° $\mathring{B}$ 04'23	
retrograde	-2224 Mar 02 j 13:34	5° $\mathring{M}$ 13'42					
opposition	-2224 May 12 j 11:50	1° $\mathring{M}$ 56'19	2°02'26	conjunction	-2218 Jan 13 j 13:11	6° $\mathring{B}$ 10'05	0°-47'-39
min. Earth dist.	-2224 May 12 j 22:43	1° $\mathring{M}$ 54'20	9.14797 AU	minimum elong	-2218 Jan 13 j 13:09	6° $\mathring{B}$ 10'04	0°47'43
	-2224 Jun 09 j 20:05	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	-2218 Jan 13 j 02:32	6° $\mathring{B}$ 06'46	10.54272 AU
direct	-2224 Jul 22 j 12:01	28° $\mathring{A}$ 38'18		morning rise	-2218 Jan 30 j 17:07	8° $\mathring{B}$ 17'16	
	-2224 Sep 02 j 00:09	0° $\mathring{M}$		retrograde	-2218 May 16 j 12:58	16° $\mathring{B}$ 05'48	
evening set	-2224 Oct 31 j 00:10	5° $\mathring{M}$ 33'35		opposition	-2218 Jul 25 j 16:38	12° $\mathring{B}$ 39'34	-1°-17'-8
				min. Earth dist.	-2218 Jul 26 j 00:12	12° $\mathring{B}$ 38'06	8.46982 AU
conjunction	-2224 Nov 16 j 11:32	7° $\mathring{M}$ 28'38	1°30'09	direct	-2218 Oct 01 j 12:32	9° $\mathring{B}$ 17'54	
minimum elong	-2224 Nov 16 j 11:35	7° $\mathring{M}$ 28'38	1°30'07	evening set	-2217 Jan 09 j 11:54	16° $\mathring{B}$ 48'34	

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 16

Attention, astronomical year style is used: The year -2217 in astronomical counting style is the year 2218 BCE in historical counting style.

conjunction	-2217 Jan 26 j 14:37	18°♄57'15	-1°-15'-57	morning rise	-2211 May 11 j 10:54	15°♄57'18	
minimum elong	-2217 Jan 26 j 14:34	18°♄57'14	1°16'01	retrograde	-2211 Aug 25 j 20:22	24°♄28'11	
max. Earth dist.	-2217 Jan 26 j 06:40	18°♄54'44	10.39851 AU	opposition	-2211 Oct 31 j 11:35	20°♄57'41	-2°-25'-36
morning rise	-2217 Feb 12 j 22:17	21°♄07'31		min. Earth dist.	-2211 Oct 31 j 02:22	20°♄59'37	7.90776 AU
retrograde	-2217 May 30 j 13:39	29°♄08'08		direct	-2210 Jan 05 j 17:09	17°♄28'18	
opposition	-2217 Aug 08 j 05:33	25°♄40'22	-1°-50'-47	evening set	-2210 Apr 20 j 20:09	25°♄51'57	
min. Earth dist.	-2217 Aug 08 j 10:45	25°♄39'21	8.32766 AU				
direct	-2217 Oct 14 j 11:50	22°♄17'29		conjunction	-2210 May 08 j 23:59	28°♄14'48	-1°-45'-14
evening set	-2216 Jan 22 j 22:40	29°♄58'41		minimum elong	-2210 May 09 j 00:03	28°♄14'49	1°45'12
	-2216 Jan 23 j 02:53	0°♄		max. Earth dist.	-2210 May 09 j 12:58	28°♄19'05	9.92423 AU
					-2210 May 22 j 08:00	0°♄	
conjunction	-2216 Feb 09 j 04:59	2°♄10'23	-1°-41'-7	morning rise	-2210 May 27 j 04:19	0°♄37'45	
minimum elong	-2216 Feb 09 j 04:56	2°♄10'22	1°41'11	retrograde	-2210 Sep 09 j 12:47	9°♄01'30	
max. Earth dist.	-2216 Feb 09 j 00:34	2°♄08'58	10.25929 AU	opposition	-2210 Nov 14 j 23:27	5°♄31'58	-1°-55'-52
morning rise	-2216 Feb 26 j 16:16	4°♄23'44		min. Earth dist.	-2210 Nov 14 j 13:11	5°♄34'07	7.95113 AU
retrograde	-2216 Jun 12 j 23:48	12°♄35'55		direct	-2209 Jan 20 j 15:24	2°♄02'12	
opposition	-2216 Aug 21 j 02:10	9°♄06'48	-2°-19'-36	evening set	-2209 May 06 j 07:32	10°♄24'03	
min. Earth dist.	-2216 Aug 21 j 04:12	9°♄06'24	8.19458 AU				
direct	-2216 Oct 26 j 19:36	5°♄42'41		conjunction	-2209 May 24 j 12:33	12°♄46'10	-1°-18'-30
evening set	-2215 Feb 04 j 22:31	13°♄34'42		minimum elong	-2209 May 24 j 12:37	12°♄46'11	1°18'29
	-2215 Feb 16 j 00:16	15°♄		max. Earth dist.	-2209 May 25 j 02:22	12°♄50'41	9.98402 AU
					-2209 Jun 10 j 15:53	15°♄	
conjunction	-2215 Feb 22 j 08:36	15°♄49'22	-2°-1'-24	morning rise	-2209 Jun 11 j 16:32	15°♄07'54	
minimum elong	-2215 Feb 22 j 08:33	15°♄49'21	2°01'27	retrograde	-2209 Sep 23 j 21:29	23°♄22'05	
max. Earth dist.	-2215 Feb 22 j 07:37	15°♄49'03	10.13304 AU	opposition	-2209 Nov 29 j 06:50	19°♄53'53	-1°-19'-15
morning rise	-2215 Mar 11 j 23:33	18°♄05'39		min. Earth dist.	-2209 Nov 28 j 19:59	19°♄56'08	8.02500 AU
retrograde	-2215 Jun 27 j 17:53	26°♄27'58		direct	-2208 Feb 04 j 11:12	16°♄24'06	
opposition	-2215 Sep 04 j 05:56	22°♄57'46	-2°-41'-18	evening set	-2208 May 20 j 13:09	24°♄41'37	
min. Earth dist.	-2215 Sep 04 j 04:51	22°♄57'59	8.07846 AU				
direct	-2215 Nov 09 j 13:00	19°♄32'23		conjunction	-2208 Jun 07 j 17:46	27°♄02'06	0°-47'-20
evening set	-2214 Feb 19 j 10:52	27°♄34'48		minimum elong	-2208 Jun 07 j 17:49	27°♄02'07	0°47'18
				max. Earth dist.	-2208 Jun 08 j 07:50	27°♄06'40	10.07236 AU
conjunction	-2214 Mar 09 j 00:53	29°♄52'13	-2°-15'-4	morning rise	-2208 Jun 25 j 19:55	29°♄21'47	
minimum elong	-2214 Mar 09 j 00:51	29°♄52'13	2°15'06		-2208 Jun 30 j 21:21	0°♄	
max. Earth dist.	-2214 Mar 09 j 03:13	29°♄52'59	10.02759 AU	retrograde	-2208 Oct 06 j 21:55	7°♄24'50	
	-2214 Mar 10 j 00:37	0°♄		opposition	-2208 Dec 12 j 08:12	3°♄58'11	0°-38'-36
morning rise	-2214 Mar 26 j 19:30	2°♄11'10		min. Earth dist.	-2208 Dec 11 j 21:27	4°♄00'24	8.12531 AU
retrograde	-2214 Jul 12 j 17:29	10°♄41'06		direct	-2207 Feb 18 j 02:24	0°♄28'41	
opposition	-2214 Sep 18 j 15:35	7°♄10'13	-2°-53'-49	evening set	-2207 Jun 04 j 10:49	8°♄39'47	
min. Earth dist.	-2214 Sep 18 j 11:57	7°♄10'58	7.98662 AU				
direct	-2214 Nov 23 j 15:47	3°♄43'35		conjunction	-2207 Jun 22 j 13:20	10°♄57'51	0°-14'00
evening set	-2213 Mar 06 j 10:16	11°♄55'07		minimum elong	-2207 Jun 22 j 13:21	10°♄57'52	0°13'58
				behind sun begin	-2207 Jun 22 j 09:49	10°♄56'45	
conjunction	-2213 Mar 24 j 04:14	14°♄14'55	-2°-20'-43	behind sun end	-2207 Jun 22 j 16:53	10°♄58'59	
minimum elong	-2213 Mar 24 j 04:14	14°♄14'56	2°20'44	max. Earth dist.	-2207 Jun 23 j 02:49	11°♄02'10	10.18443 AU
max. Earth dist.	-2213 Mar 24 j 09:50	14°♄16'46	9.94988 AU	morning rise	-2207 Jul 10 j 12:11	13°♄14'45	
morning rise	-2213 Apr 11 j 02:16	16°♄36'01		retrograde	-2207 Oct 20 j 12:50	21°♄05'50	
retrograde	-2213 Jul 27 j 19:42	25°♄10'13		asc. node	-2207 Nov 27 j 09:11	19°♄49'51	
opposition	-2213 Oct 03 j 05:11	21°♄39'03	-2°-55'-36	opposition	-2207 Dec 26 j 02:30	17°♄40'52	0°03'09
min. Earth dist.	-2213 Oct 02 j 23:22	21°♄40'15	7.92522 AU	min. Earth dist.	-2207 Dec 25 j 16:51	17°♄42'50	8.24660 AU
direct	-2213 Dec 08 j 02:24	18°♄11'18		direct	-2206 Mar 04 j 12:08	14°♄11'55	
evening set	-2212 Mar 20 j 17:54	26°♄29'48		evening set	-2206 Jun 18 j 22:16	22°♄15'03	
conjunction	-2212 Apr 07 j 15:44	28°♄51'24	-2°-17'-32	conjunction	-2206 Jul 06 j 21:07	24°♄30'05	0°19'21
minimum elong	-2212 Apr 07 j 15:46	28°♄51'25	2°17'32	minimum elong	-2206 Jul 06 j 21:06	24°♄30'04	0°19'24
max. Earth dist.	-2212 Apr 08 j 00:25	28°♄54'17	9.90537 AU	max. Earth dist.	-2206 Jul 07 j 08:55	24°♄33'47	10.31386 AU
	-2212 Apr 16 j 06:58	0°♄		morning rise	-2206 Jul 24 j 15:31	26°♄43'41	
morning rise	-2212 Apr 25 j 16:45	1°♄13'59			-2206 Aug 21 j 17:36	0°♄	
retrograde	-2212 Aug 10 j 21:51	9°♄48'31		retrograde	-2206 Nov 02 j 16:46	4°♄22'49	
opposition	-2212 Oct 16 j 20:43	6°♄17'29	-2°-46'-2	opposition	-2205 Jan 08 j 13:25	0°♄59'35	0°43'26
min. Earth dist.	-2212 Oct 16 j 13:02	6°♄19'06	7.89851 AU	min. Earth dist.	-2205 Jan 08 j 05:18	1°♄01'12	8.38202 AU
direct	-2212 Dec 21 j 19:47	2°♄48'48			-2205 Jan 21 j 03:51	30°♄	
evening set	-2211 Apr 05 j 06:20	11°♄11'24		direct	-2205 Mar 18 j 15:17	27°♄31'26	
					-2205 May 12 j 22:37	0°♄	
conjunction	-2211 Apr 23 j 07:38	13°♄34'04	-2°-5'-26	evening set	-2205 Jul 02 j 21:56	5°♄25'36	
minimum elong	-2211 Apr 23 j 07:42	13°♄34'05	2°05'25				
max. Earth dist.	-2211 Apr 23 j 18:55	13°♄37'48	9.89696 AU	conjunction	-2205 Jul 20 j 16:01	7°♄37'12	0°50'44

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Attention, astronomical year style is used: The year -2205 in astronomical counting style is the year 2206 BCE in historical counting style.

minimum elong	-2205 Jul 20 j 15:59	7° $\overline{37}$ '11	0°50'47	morning rise	-2199 Oct 16 j 05:53	20° $\overline{41}$ '02	
max. Earth dist.	-2205 Jul 21 j 01:16	7° $\overline{40}$ '04	10.45340 AU	retrograde	-2198 Jan 23 j 07:12	27° $\overline{31}$ '07	
morning rise	-2205 Aug 07 j 05:16	9° $\overline{47}$ '17		opposition	-2198 Apr 03 j 05:39	24° $\overline{14}$ '57	2°52'50
retrograde	-2205 Nov 15 j 09:49	17° $\overline{15}$ '11		min. Earth dist.	-2198 Apr 03 j 10:03	24° $\overline{14}$ '08	9.16409 AU
opposition	-2204 Jan 21 j 16:36	13° $\overline{53}$ '34	1°20'10	direct	-2198 Jun 13 j 23:27	20° $\overline{54}$ '54	
min. Earth dist.	-2204 Jan 21 j 09:52	13° $\overline{54}$ '53	8.52411 AU	evening set	-2198 Sep 24 j 10:03	27° $\overline{55}$ '27	
direct	-2204 Mar 31 j 10:57	10° $\overline{26}$ '25					
evening set	-2204 Jul 15 j 09:36	18° $\overline{11}$ '12		conjunction	-2198 Oct 10 j 22:06	29° $\overline{49}$ '42	2°19'25
				minimum elong	-2198 Oct 10 j 22:07	29° $\overline{49}$ '42	2°19'25
conjunction	-2204 Aug 01 j 22:21	20° $\overline{19}$ '18	1°18'44	max. Earth dist.	-2198 Oct 10 j 15:46	29° $\overline{47}$ '51	11.18137 AU
minimum elong	-2204 Aug 01 j 22:18	20° $\overline{19}$ '17	1°18'46		-2198 Oct 12 j 09:33	0° $\overline{0}$	
max. Earth dist.	-2204 Aug 02 j 05:06	20° $\overline{21}$ '22	10.59567 AU	morning rise	-2198 Oct 27 j 07:35	1° $\overline{43}$ '16	
morning rise	-2204 Aug 19 j 06:06	22° $\overline{25}$ '50		retrograde	-2197 Feb 03 j 16:29	8° $\overline{32}$ '44	
retrograde	-2204 Nov 26 j 19:46	29° $\overline{43}$ '37		opposition	-2197 Apr 15 j 00:22	5° $\overline{16}$ '36	2°45'16
opposition	-2203 Feb 02 j 12:14	26° $\overline{23}$ '27	1°51'49	min. Earth dist.	-2197 Apr 15 j 06:42	5° $\overline{15}$ '26	9.19593 AU
min. Earth dist.	-2203 Feb 02 j 06:46	26° $\overline{24}$ '30	8.66552 AU	direct	-2197 Jun 25 j 14:52	1° $\overline{57}$ '27	
direct	-2203 Apr 13 j 20:17	22° $\overline{57}$ '27		evening set	-2197 Oct 05 j 11:43	8° $\overline{54}$ '34	
	-2203 Jul 23 j 17:19	0° $\overline{0}$					
evening set	-2203 Jul 28 j 09:22	0° $\overline{32}$ '56		conjunction	-2197 Oct 21 j 22:28	10° $\overline{48}$ '19	2°10'45
				minimum elong	-2197 Oct 21 j 22:30	10° $\overline{48}$ '20	2°10'44
conjunction	-2203 Aug 14 j 16:42	2° $\overline{37}$ '40	1°42'18	max. Earth dist.	-2197 Oct 21 j 13:48	10° $\overline{45}$ '48	11.19993 AU
minimum elong	-2203 Aug 14 j 16:39	2° $\overline{37}$ '39	1°42'20	morning rise	-2197 Nov 07 j 07:40	12° $\overline{41}$ '42	
max. Earth dist.	-2203 Aug 14 j 21:28	2° $\overline{39}$ '07	10.73369 AU	retrograde	-2196 Feb 15 j 03:45	19° $\overline{32}$ '10	
morning rise	-2203 Aug 31 j 18:54	4° $\overline{40}$ '51		opposition	-2196 Apr 25 j 18:55	16° $\overline{15}$ '48	2°31'42
retrograde	-2203 Dec 08 j 21:52	11° $\overline{49}$ '53		min. Earth dist.	-2196 Apr 26 j 03:30	16° $\overline{14}$ '14	9.20069 AU
opposition	-2202 Feb 15 j 01:20	8° $\overline{30}$ '59	2°17'25	direct	-2196 Jul 06 j 05:57	12° $\overline{57}$ '22	
min. Earth dist.	-2202 Feb 14 j 21:35	8° $\overline{31}$ '42	8.79957 AU	evening set	-2196 Oct 15 j 11:38	19° $\overline{52}$ '27	
direct	-2202 Apr 26 j 20:58	5° $\overline{06}$ '14					
evening set	-2202 Aug 09 j 21:51	12° $\overline{32}$ '50		conjunction	-2196 Oct 31 j 21:58	21° $\overline{46}$ '16	1°57'17
				minimum elong	-2196 Oct 31 j 22:01	21° $\overline{46}$ '17	1°57'15
conjunction	-2202 Aug 26 j 23:55	14° $\overline{34}$ '29	2°00'45	max. Earth dist.	-2196 Oct 31 j 11:18	21° $\overline{43}$ '10	11.19139 AU
minimum elong	-2202 Aug 26 j 23:53	14° $\overline{34}$ '28	2°00'47	morning rise	-2196 Nov 17 j 07:47	23° $\overline{40}$ '00	
max. Earth dist.	-2202 Aug 27 j 02:53	14° $\overline{35}$ '22	10.86129 AU		-2195 Jan 30 j 12:37	0° $\overline{0}$	
	-2202 Aug 30 j 13:16	15° $\overline{0}$		retrograde	-2195 Feb 25 j 16:35	0° $\overline{33}$ '08	
morning rise	-2202 Sep 12 j 20:57	16° $\overline{34}$ '42			-2195 Mar 24 j 07:50	30° $\overline{R}$ $\overline{0}$	
retrograde	-2202 Dec 20 j 18:17	23° $\overline{36}$ '33		opposition	-2195 May 07 j 14:25	27° $\overline{16}$ '14	2°12'35
opposition	-2201 Feb 27 j 08:42	20° $\overline{18}$ '43	2°36'26	min. Earth dist.	-2195 May 07 j 23:59	27° $\overline{14}$ '29	9.17820 AU
min. Earth dist.	-2201 Feb 27 j 07:29	20° $\overline{18}$ '57	8.92064 AU	direct	-2195 Jul 17 j 18:55	23° $\overline{58}$ '17	
direct	-2201 May 09 j 13:37	16° $\overline{55}$ '12			-2195 Oct 18 j 16:12	0° $\overline{0}$	
evening set	-2201 Aug 22 j 00:22	24° $\overline{13}$ '42		evening set	-2195 Oct 26 j 11:35	0° $\overline{52}$ '48	
conjunction	-2201 Sep 07 j 21:35	26° $\overline{12}$ '41	2°13'44	conjunction	-2195 Nov 11 j 22:29	2° $\overline{47}$ '14	1°39'24
minimum elong	-2201 Sep 07 j 21:33	26° $\overline{12}$ '41	2°13'45	minimum elong	-2195 Nov 11 j 22:32	2° $\overline{47}$ '15	1°39'23
max. Earth dist.	-2201 Sep 07 j 21:33	26° $\overline{12}$ '41	10.97351 AU	max. Earth dist.	-2195 Nov 11 j 11:29	2° $\overline{44}$ '01	11.15599 AU
morning rise	-2201 Sep 24 j 14:21	28° $\overline{10}$ '24		morning rise	-2195 Nov 28 j 09:35	4° $\overline{41}$ '48	
	-2201 Oct 10 j 20:43	0° $\overline{0}$		retrograde	-2194 Mar 09 j 11:43	11° $\overline{39}$ '16	
retrograde	-2200 Jan 01 j 08:46	5° $\overline{06}$ '39		opposition	-2194 May 19 j 12:13	8° $\overline{21}$ '33	1°48'25
opposition	-2200 Mar 10 j 11:02	1° $\overline{49}$ '38	2°48'38	min. Earth dist.	-2194 May 19 j 21:54	8° $\overline{19}$ '47	9.12919 AU
min. Earth dist.	-2200 Mar 10 j 12:28	1° $\overline{49}$ '22	9.02414 AU	direct	-2194 Jul 29 j 09:17	5° $\overline{03}$ '51	
	-2200 Apr 05 j 08:02	30° $\overline{R}$ $\overline{0}$		evening set	-2194 Nov 06 j 13:26	11° $\overline{59}$ '18	
direct	-2200 May 20 j 21:41	28° $\overline{27}$ '20					
	-2200 Jul 04 j 14:32	0° $\overline{0}$		conjunction	-2194 Nov 23 j 01:34	13° $\overline{54}$ '51	1°17'38
evening set	-2200 Sep 01 j 18:10	5° $\overline{38}$ '42		minimum elong	-2194 Nov 23 j 01:37	13° $\overline{54}$ '52	1°17'36
				max. Earth dist.	-2194 Nov 22 j 14:18	13° $\overline{51}$ '32	11.09477 AU
conjunction	-2200 Sep 18 j 11:19	7° $\overline{35}$ '33	2°21'07		-2194 Dec 02 j 07:38	15° $\overline{0}$	
minimum elong	-2200 Sep 18 j 11:18	7° $\overline{35}$ '33	2°21'09	morning rise	-2194 Dec 09 j 14:40	15° $\overline{50}$ '46	
max. Earth dist.	-2200 Sep 18 j 08:05	7° $\overline{34}$ '36	11.06629 AU	retrograde	-2193 Mar 21 j 11:59	22° $\overline{54}$ '07	
morning rise	-2200 Oct 05 j 00:48	9° $\overline{31}$ '20		opposition	-2193 May 31 j 13:22	19° $\overline{35}$ '22	1°19'48
retrograde	-2199 Jan 11 j 19:24	16° $\overline{23}$ '39		min. Earth dist.	-2193 May 31 j 23:26	19° $\overline{33}$ '31	9.05517 AU
opposition	-2199 Mar 22 j 09:37	13° $\overline{07}$ '11	2°54'02	direct	-2193 Aug 09 j 22:45	16° $\overline{17}$ '40	
min. Earth dist.	-2199 Mar 22 j 12:45	13° $\overline{06}$ '36	9.10623 AU	evening set	-2193 Nov 17 j 19:20	23° $\overline{15}$ '40	
direct	-2199 Jun 02 j 01:32	9° $\overline{46}$ '03					
evening set	-2199 Sep 13 j 04:48	16° $\overline{51}$ '25		conjunction	-2193 Dec 04 j 09:07	25° $\overline{12}$ '44	0°52'34
				minimum elong	-2193 Dec 04 j 09:09	25° $\overline{12}$ '45	0°52'31
conjunction	-2199 Sep 29 j 18:54	18° $\overline{46}$ '40	2°22'58	max. Earth dist.	-2193 Dec 03 j 20:33	25° $\overline{09}$ '01	11.00963 AU
minimum elong	-2199 Sep 29 j 18:54	18° $\overline{46}$ '40	2°22'59	morning rise	-2193 Dec 21 j 00:57	27° $\overline{10}$ '28	
max. Earth dist.	-2199 Sep 29 j 13:56	18° $\overline{45}$ '13	11.13635 AU		-2192 Jan 15 j 17:44	0° $\overline{0}$	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), AstroDienst AG 7-Dez-2017 14:42, page 18

Attention, astronomical year style is used: The year -2192 in astronomical counting style is the year 2193 BCE in historical counting style.

retrograde	-2192 Apr 01 j 17:14	4°♂21'15		max. Earth dist.	-2186 Feb 15 j 21:08	9°♂36'51	10.21092 AU
opposition	-2192 Jun 11 j 18:51	1°♂01'14	0°47'31	morning rise	-2186 Mar 05 j 15:26	11°♂53'04	
min. Earth dist.	-2192 Jun 12 j 05:43	0°♂59'13	8.95855 AU		-2186 Mar 31 j 14:47	15°♂	
	-2192 Jun 25 j 18:19	30°♂		retrograde	-2186 Jun 21 j 03:52	20°♂09'30	
direct	-2192 Aug 20 j 15:40	27°♂43'13		opposition	-2186 Aug 28 j 23:41	16°♂40'05	-2°-32'-9
	-2192 Oct 12 j 21:49	0°♂		min. Earth dist.	-2186 Aug 29 j 02:10	16°♂39'35	8.14838 AU
evening set	-2192 Nov 28 j 06:55	4°♂45'26			-2186 Sep 19 j 13:42	15°♂	
				direct	-2186 Nov 03 j 12:42	13°♂15'27	
conjunction	-2192 Dec 14 j 22:53	6°♂44'27	0°24'57		-2186 Dec 17 j 05:51	15°♂	
minimum elong	-2192 Dec 14 j 22:54	6°♂44'27	0°24'53	evening set	-2185 Feb 12 j 23:42	21°♂11'55	
max. Earth dist.	-2192 Dec 14 j 10:06	6°♂40'38	10.90327 AU				
morning rise	-2192 Dec 31 j 17:51	8°♂44'23		conjunction	-2185 Mar 02 j 11:40	23°♂27'46	-2°-9'-37
retrograde	-2191 Apr 14 j 07:28	16°♂04'06		minimum elong	-2185 Mar 02 j 11:38	23°♂27'45	2°09'39
opposition	-2191 Jun 24 j 05:55	12°♂42'37	0°12'30	max. Earth dist.	-2185 Mar 02 j 10:27	23°♂27'22	10.08933 AU
min. Earth dist.	-2191 Jun 24 j 16:38	12°♂40'37	8.84240 AU	morning rise	-2185 Mar 20 j 04:30	25°♂45'12	
direct	-2191 Sep 01 j 14:14	9°♂24'00			-2185 Apr 25 j 02:41	0°♂	
desc. node	-2191 Nov 01 j 14:02	12°♂23'52		retrograde	-2185 Jul 05 j 23:05	4°♂10'43	
evening set	-2191 Dec 10 j 01:51	16°♂32'03		opposition	-2185 Sep 12 j 05:41	0°♂40'12	-2°-49'-12
				min. Earth dist.	-2185 Sep 12 j 05:09	0°♂40'19	8.03848 AU
conjunction	-2191 Dec 26 j 20:34	18°♂33'23	0°-4'-24		-2185 Sep 20 j 11:21	30°♂	
minimum elong	-2191 Dec 26 j 20:35	18°♂33'23	0°04'29	direct	-2185 Nov 17 j 10:45	27°♂14'08	
behind sun begin	-2191 Dec 26 j 13:41	18°♂31'19			-2184 Jan 11 j 23:19	0°♂	
behind sun end	-2191 Dec 27 j 03:29	18°♂35'27		evening set	-2184 Feb 27 j 16:47	5°♂20'32	
max. Earth dist.	-2191 Dec 26 j 08:56	18°♂29'52	10.77893 AU				
morning rise	-2190 Jan 12 j 18:52	20°♂35'52		conjunction	-2184 Mar 16 j 08:49	7°♂39'03	-2°-19'-12
retrograde	-2190 Apr 27 j 06:27	28°♂05'53		minimum elong	-2184 Mar 16 j 08:48	7°♂39'03	2°19'13
opposition	-2190 Jul 06 j 23:17	24°♂42'47	0°-24'-2	max. Earth dist.	-2184 Mar 16 j 11:41	7°♂39'59	9.99158 AU
min. Earth dist.	-2190 Jul 07 j 08:50	24°♂40'58	8.71040 AU	morning rise	-2184 Apr 03 j 05:05	9°♂58'58	
direct	-2190 Sep 13 j 17:29	21°♂23'20		retrograde	-2184 Jul 19 j 23:25	18°♂30'45	
evening set	-2190 Dec 22 j 06:22	28°♂38'54		opposition	-2184 Sep 25 j 16:42	14°♂59'31	-2°-56'-15
	-2189 Jan 02 j 08:45	0°♂		min. Earth dist.	-2184 Sep 25 j 13:02	15°♂00'16	7.95563 AU
				direct	-2184 Nov 30 j 16:10	11°♂32'05	
conjunction	-2189 Jan 08 j 04:07	0°♂42'52	0°-34'-11	evening set	-2183 Mar 13 j 19:42	19°♂46'48	
minimum elong	-2189 Jan 08 j 04:06	0°♂42'52	0°34'15				
max. Earth dist.	-2189 Jan 07 j 17:29	0°♂39'36	10.64074 AU	conjunction	-2183 Mar 31 j 15:48	22°♂07'31	-2°-20'-17
morning rise	-2189 Jan 25 j 05:56	2°♂48'12		minimum elong	-2183 Mar 31 j 15:49	22°♂07'31	2°20'18
retrograde	-2189 May 10 j 15:44	10°♂29'37		max. Earth dist.	-2183 Mar 31 j 22:26	22°♂09'42	9.92417 AU
opposition	-2189 Jul 19 j 23:40	7°♂04'50	-1°00'-42	morning rise	-2183 Apr 18 j 15:16	24°♂29'21	
min. Earth dist.	-2189 Jul 20 j 07:40	7°♂03'18	8.56752 AU		-2183 Jun 05 j 07:59	0°♂	
direct	-2189 Sep 26 j 03:19	3°♂44'21		retrograde	-2183 Aug 04 j 02:15	3°♂03'46	
evening set	-2188 Jan 03 j 21:57	11°♂08'57			-2183 Oct 04 j 17:26	30°♂	
				opposition	-2183 Oct 10 j 06:43	29°♂32'16	-2°-52'-10
conjunction	-2188 Jan 20 j 22:50	13°♂15'49	-1°-3'-14	min. Earth dist.	-2183 Oct 10 j 00:23	29°♂33'35	7.90534 AU
minimum elong	-2188 Jan 20 j 22:47	13°♂15'48	1°03'18	direct	-2183 Dec 15 j 05:16	26°♂03'39	
max. Earth dist.	-2188 Jan 20 j 13:04	13°♂12'46	10.49477 AU		-2182 Feb 20 j 12:38	0°♂	
morning rise	-2188 Feb 07 j 04:24	15°♂24'12		evening set	-2182 Mar 29 j 05:33	4°♂24'17	
retrograde	-2188 May 23 j 11:45	23°♂17'39					
opposition	-2188 Aug 01 j 07:59	19°♂51'14	-1°-35'-40	conjunction	-2182 Apr 16 j 05:24	6°♂46'33	-2°-12'-25
min. Earth dist.	-2188 Aug 01 j 14:29	19°♂49'58	8.42083 AU	minimum elong	-2182 Apr 16 j 05:27	6°♂46'34	2°12'25
direct	-2188 Oct 07 j 19:59	16°♂29'30		max. Earth dist.	-2182 Apr 16 j 15:08	6°♂49'46	9.89163 AU
evening set	-2187 Jan 16 j 01:36	24°♂04'17		morning rise	-2182 May 04 j 07:33	9°♂09'34	
				retrograde	-2182 Aug 19 j 03:02	17°♂42'39	
conjunction	-2187 Feb 02 j 05:51	26°♂14'09	-1°-29'-59	opposition	-2182 Oct 24 j 21:41	14°♂11'23	-2°-36'-51
minimum elong	-2187 Feb 02 j 05:48	26°♂14'08	1°30'02	min. Earth dist.	-2182 Oct 24 j 13:25	14°♂13'07	7.89091 AU
max. Earth dist.	-2187 Feb 01 j 21:50	26°♂11'36	10.34876 AU	direct	-2182 Dec 29 j 23:59	10°♂41'50	
morning rise	-2187 Feb 19 j 15:17	28°♂25'41		evening set	-2181 Apr 13 j 18:44	19°♂05'27	
	-2187 Mar 04 j 13:18	0°♂					
retrograde	-2187 Jun 06 j 15:51	6°♂31'06		conjunction	-2181 May 01 j 21:32	21°♂28'25	-1°-55'-58
opposition	-2187 Aug 15 j 00:13	3°♂03'06	-2°-6'-54	minimum elong	-2181 May 01 j 21:36	21°♂28'27	1°55'57
min. Earth dist.	-2187 Aug 15 j 04:56	3°♂02'09	8.27840 AU	max. Earth dist.	-2181 May 02 j 09:25	21°♂32'21	9.89606 AU
	-2187 Oct 01 j 20:48	30°♂		morning rise	-2181 May 20 j 01:25	23°♂51'44	
direct	-2187 Oct 20 j 23:20	29°♂39'56			-2181 Jul 13 j 19:20	0°♂	
	-2187 Nov 08 j 23:07	0°♂		retrograde	-2181 Sep 02 j 22:53	2°♂19'41	
evening set	-2186 Jan 29 j 18:15	7°♂25'35			-2181 Oct 25 j 01:43	30°♂	
				opposition	-2181 Nov 08 j 11:09	28°♂49'07	-2°-11'-21
conjunction	-2186 Feb 16 j 02:14	9°♂38'29	-1°-52'-41	min. Earth dist.	-2181 Nov 08 j 01:50	28°♂51'05	7.91328 AU
minimum elong	-2186 Feb 16 j 02:11	9°♂38'28	1°52'44	direct	-2180 Jan 13 j 21:24	25°♂18'58	



## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 19

Attention, astronomical year style is used: The year -2180 in astronomical counting style is the year 2181 BCE in historical counting style.

	-2180 Mar 28 j 18:31	0°♄		retrograde	-2175 Nov 21 j 09:51	24°♄04'18	
evening set	-2180 Apr 28 j 07:31	3°♄42'26		opposition	-2174 Jan 27 j 20:04	20°♄43'24	1°37'18
				min. Earth dist.	-2174 Jan 27 j 13:22	20°♄44'42	8.59424 AU
conjunction	-2180 May 16 j 12:09	6°♄05'11	-1°-32'-9	direct	-2174 Apr 07 j 19:46	17°♄16'52	
minimum elong	-2180 May 16 j 12:13	6°♄05'13	1°32'08	evening set	-2174 Jul 22 j 15:43	24°♄57'04	
max. Earth dist.	-2180 May 17 j 01:14	6°♄09'30	9.93705 AU				
morning rise	-2180 Jun 03 j 16:33	8°♄27'49		conjunction	-2174 Aug 09 j 01:42	27°♄03'28	1°31'34
	-2180 Aug 03 j 00:29	15°♄		minimum elong	-2174 Aug 09 j 01:39	27°♄03'27	1°31'36
retrograde	-2180 Sep 16 j 11:33	16°♄47'27		max. Earth dist.	-2174 Aug 09 j 08:41	27°♄05'36	10.66616 AU
	-2180 Oct 31 j 13:16	15°♄♄		morning rise	-2174 Aug 26 j 06:32	29°♄08'18	
opposition	-2180 Nov 21 j 21:00	13°♄18'00	-1°-37'-41		-2174 Sep 02 j 14:07	0°♄	
min. Earth dist.	-2180 Nov 21 j 11:02	13°♄20'05	7.97087 AU	retrograde	-2174 Dec 03 j 14:48	6°♄21'37	
direct	-2179 Jan 27 j 18:36	9°♄47'35		opposition	-2173 Feb 09 j 12:46	3°♄02'17	2°05'54
	-2179 Apr 17 j 22:47	15°♄		min. Earth dist.	-2173 Feb 09 j 08:16	3°♄03'09	8.73599 AU
evening set	-2179 May 13 j 16:20	18°♄07'59			-2173 Mar 30 j 10:44	30°♄♄	
				direct	-2173 Apr 21 j 01:46	29°♄37'07	
conjunction	-2179 May 31 j 21:20	20°♄29'33	-1°-2'-49		-2173 May 12 j 15:43	0°♄	
minimum elong	-2179 May 31 j 21:23	20°♄29'34	1°02'47	evening set	-2173 Aug 04 j 09:57	7°♄08'12	
max. Earth dist.	-2179 Jun 01 j 10:52	20°♄33'58	10.01154 AU				
morning rise	-2179 Jun 19 j 00:46	22°♄50'32		conjunction	-2173 Aug 21 j 14:25	9°♄11'19	1°52'32
	-2179 Aug 28 j 21:27	0°♄♄		minimum elong	-2173 Aug 21 j 14:22	9°♄11'18	1°52'34
retrograde	-2179 Sep 30 j 15:40	0°♄♄59'36		max. Earth dist.	-2173 Aug 21 j 18:13	9°♄12'27	10.80282 AU
	-2179 Nov 02 j 16:01	30°♄♄		morning rise	-2173 Sep 07 j 14:03	11°♄12'58	
opposition	-2179 Dec 06 j 01:28	27°♄31'37	0°-58'-34		-2173 Oct 12 j 13:48	15°♄	
min. Earth dist.	-2179 Dec 05 j 15:07	27°♄33'45	8.05957 AU	retrograde	-2173 Dec 15 j 13:40	18°♄18'20	
direct	-2178 Feb 11 j 12:52	24°♄01'19		opposition	-2172 Feb 21 j 23:08	15°♄00'18	2°28'06
	-2178 May 10 j 04:47	0°♄♄		min. Earth dist.	-2172 Feb 21 j 20:14	15°♄00'51	8.86724 AU
evening set	-2178 May 28 j 18:12	2°♄♄16'11			-2172 Feb 22 j 00:43	15°♄♄	
				direct	-2172 May 02 j 23:38	11°♄36'31	
conjunction	-2178 Jun 15 j 21:53	4°♄♄35'40	0°-30'-13		-2172 Jul 09 j 07:05	15°♄	
minimum elong	-2178 Jun 15 j 21:55	4°♄♄35'40	0°30'11	evening set	-2172 Aug 15 j 17:42	18°♄59'05	
max. Earth dist.	-2178 Jun 16 j 11:11	4°♄♄39'56	10.11425 AU				
morning rise	-2178 Jul 03 j 22:44	6°♄♄54'09		conjunction	-2172 Sep 01 j 17:11	20°♄59'19	2°08'09
retrograde	-2178 Oct 14 j 10:27	14°♄♄51'25		minimum elong	-2172 Sep 01 j 17:09	20°♄59'18	2°08'11
opposition	-2178 Dec 19 j 23:14	11°♄♄25'07	0°-16'-58	max. Earth dist.	-2172 Sep 01 j 18:42	20°♄59'45	10.92608 AU
min. Earth dist.	-2178 Dec 19 j 12:40	11°♄♄27'16	8.17351 AU	morning rise	-2172 Sep 18 j 12:03	22°♄58'11	
direct	-2177 Feb 26 j 02:31	7°♄♄55'21		retrograde	-2172 Dec 26 j 08:15	29°♄57'07	
asc. node	-2177 May 23 j 00:51	13°♄♄35'45		opposition	-2171 Mar 05 j 04:03	26°♄40'07	2°43'33
evening set	-2177 Jun 12 j 10:38	16°♄♄02'48		min. Earth dist.	-2171 Mar 05 j 03:03	26°♄40'19	8.98231 AU
				direct	-2171 May 15 j 12:00	23°♄17'42	
conjunction	-2177 Jun 30 j 11:28	18°♄♄19'28	0°03'27		-2171 Aug 22 j 22:17	0°♄♄	
minimum elong	-2177 Jun 30 j 11:28	18°♄♄19'28	0°03'30	evening set	-2171 Aug 27 j 16:06	0°♄♄32'33	
behind sun begin	-2177 Jun 30 j 04:13	18°♄♄17'12					
behind sun end	-2177 Jun 30 j 18:42	18°♄♄21'45		conjunction	-2171 Sep 13 j 11:15	2°♄♄30'22	2°18'12
max. Earth dist.	-2177 Jul 01 j 00:13	18°♄♄23'31	10.23861 AU	minimum elong	-2171 Sep 13 j 11:14	2°♄♄30'22	2°18'14
morning rise	-2177 Jul 18 j 08:21	20°♄♄34'51		max. Earth dist.	-2171 Sep 13 j 10:38	2°♄♄30'12	11.03075 AU
retrograde	-2177 Oct 27 j 19:10	28°♄♄20'02		morning rise	-2171 Sep 30 j 02:06	4°♄♄27'00	
opposition	-2176 Jan 02 j 13:41	24°♄♄55'31	0°24'21	retrograde	-2170 Jan 06 j 22:04	11°♄♄21'09	
min. Earth dist.	-2176 Jan 02 j 03:22	24°♄♄57'36	8.30569 AU	opposition	-2170 Mar 17 j 04:57	8°♄♄04'54	2°52'09
direct	-2176 Mar 11 j 09:00	21°♄♄26'38		min. Earth dist.	-2170 Mar 17 j 06:39	8°♄♄04'35	9.07643 AU
evening set	-2176 Jun 25 j 15:58	29°♄♄25'26		direct	-2170 May 27 j 18:00	4°♄♄43'41	
	-2176 Jun 30 j 08:09	0°♄♄		evening set	-2170 Sep 08 j 06:31	11°♄♄51'55	
conjunction	-2176 Jul 13 j 12:42	1°♄♄38'49	0°35'57	conjunction	-2170 Sep 24 j 22:01	13°♄♄47'52	2°22'39
minimum elong	-2176 Jul 13 j 12:40	1°♄♄38'49	0°36'00	minimum elong	-2170 Sep 24 j 22:01	13°♄♄47'51	2°22'40
max. Earth dist.	-2176 Jul 14 j 00:37	1°♄♄42'33	10.37712 AU	max. Earth dist.	-2170 Sep 24 j 18:16	13°♄♄46'46	11.11249 AU
morning rise	-2176 Jul 31 j 04:36	3°♄♄50'43		morning rise	-2170 Oct 11 j 09:59	15°♄♄42'49	
retrograde	-2176 Nov 08 j 18:42	11°♄♄24'15		retrograde	-2169 Jan 18 j 09:22	22°♄♄33'55	
opposition	-2175 Jan 14 j 20:34	8°♄♄01'34	1°03'02	opposition	-2169 Mar 29 j 02:42	19°♄♄18'05	2°54'02
min. Earth dist.	-2175 Jan 14 j 11:42	8°♄♄03'20	8.44846 AU	min. Earth dist.	-2169 Mar 29 j 07:31	19°♄♄17'12	9.14571 AU
direct	-2175 Mar 25 j 07:01	4°♄♄33'47		direct	-2169 Jun 08 j 17:56	15°♄♄57'58	
evening set	-2175 Jul 09 j 09:47	12°♄♄23'20		evening set	-2169 Sep 19 j 14:47	23°♄♄00'51	
conjunction	-2175 Jul 27 j 01:23	14°♄♄33'14	1°05'45	conjunction	-2169 Oct 06 j 03:36	24°♄♄55'31	2°21'37
minimum elong	-2175 Jul 27 j 01:21	14°♄♄33'13	1°05'48	minimum elong	-2169 Oct 06 j 03:36	24°♄♄55'31	2°21'36
max. Earth dist.	-2175 Jul 27 j 11:19	14°♄♄36'17	10.52205 AU	max. Earth dist.	-2169 Oct 05 j 20:24	24°♄♄53'25	11.16817 AU
morning rise	-2175 Aug 13 j 11:45	16°♄♄41'31		morning rise	-2169 Oct 22 j 13:49	26°♄♄49'26	

Attention, astronomical year style is used: The year -2169 in astronomical counting style is the year 2170 BCE in historical counting style.

	-2169 Nov 21 j 10:26	0°♄		morning rise	-2163 Dec 26 j 18:05	3°♄39'31	
retrograde	-2168 Jan 29 j 18:14	3°♄39'11		retrograde	-2162 Apr 08 j 22:46	10°♄55'32	
opposition	-2168 Apr 08 j 22:14	0°♄23'28	2°49'24	opposition	-2162 Jun 18 j 21:36	7°♄34'11	0°28'54
min. Earth dist.	-2168 Apr 09 j 05:04	0°♄22'13	9.18770 AU	min. Earth dist.	-2162 Jun 19 j 08:08	7°♄32'13	8.87873 AU
	-2168 Apr 14 j 06:47	30°♄		direct	-2162 Aug 27 j 12:46	4°♄15'18	
direct	-2168 Jun 19 j 13:30	27°♄04'14		evening set	-2162 Dec 05 j 01:05	11°♄21'06	
	-2168 Aug 21 j 06:43	0°♄					
evening set	-2168 Sep 29 j 18:33	4°♄03'10		conjunction	-2162 Dec 21 j 18:34	13°♄21'33	0°09'18
				minimum elong	-2162 Dec 21 j 18:35	13°♄21'33	0°09'14
conjunction	-2168 Oct 16 j 05:48	5°♄57'08	2°15'18	behind sun begin	-2162 Dec 21 j 12:38	13°♄19'46	
minimum elong	-2168 Oct 16 j 05:50	5°♄57'08	2°15'17	behind sun end	-2162 Dec 22 j 00:32	13°♄23'20	
max. Earth dist.	-2168 Oct 15 j 20:52	5°♄54'32	11.19625 AU	max. Earth dist.	-2162 Dec 21 j 05:49	13°♄17'42	10.81786 AU
morning rise	-2168 Nov 01 j 15:07	7°♄50'34		morning rise	-2161 Jan 07 j 15:21	15°♄23'02	
retrograde	-2167 Feb 09 j 06:34	14°♄40'42		desc. node	-2161 Apr 18 j 18:43	22°♄48'23	
opposition	-2167 Apr 20 j 17:13	11°♄24'45	2°38'36	retrograde	-2161 Apr 21 j 16:43	22°♄48'48	
min. Earth dist.	-2167 Apr 21 j 01:12	11°♄23'18	9.20158 AU	opposition	-2161 Jul 01 j 12:10	19°♄25'51	0°-7'-8
direct	-2167 Jul 01 j 07:06	8°♄06'14		min. Earth dist.	-2161 Jul 01 j 22:19	19°♄23'56	8.75208 AU
evening set	-2167 Oct 10 j 19:33	15°♄02'29		direct	-2161 Sep 08 j 12:11	16°♄06'11	
				evening set	-2161 Dec 17 j 01:09	23°♄18'49	
conjunction	-2167 Oct 27 j 06:09	16°♄56'19	2°04'01				
minimum elong	-2167 Oct 27 j 06:11	16°♄56'20	2°04'00	conjunction	-2160 Jan 02 j 21:24	25°♄21'45	0°-20'-30
max. Earth dist.	-2167 Oct 26 j 20:10	16°♄53'25	11.19638 AU	minimum elong	-2160 Jan 02 j 21:23	25°♄21'45	0°20'35
morning rise	-2167 Nov 12 j 15:27	18°♄49'52		max. Earth dist.	-2160 Jan 02 j 09:15	25°♄18'02	10.68506 AU
retrograde	-2166 Feb 20 j 19:24	25°♄41'58		morning rise	-2160 Jan 19 j 21:45	27°♄25'58	
opposition	-2166 May 02 j 12:47	22°♄25'28	2°22'02		-2160 Feb 11 j 06:10	0°♄	
min. Earth dist.	-2166 May 02 j 22:15	22°♄23'44	9.18749 AU	retrograde	-2160 May 03 j 20:18	5°♄02'41	
direct	-2166 Jul 12 j 20:04	19°♄07'23		opposition	-2160 Jul 13 j 09:30	1°♄38'03	0°-44'00
evening set	-2166 Oct 21 j 19:49	26°♄02'25		min. Earth dist.	-2160 Jul 13 j 18:48	1°♄36'16	8.61419 AU
					-2160 Aug 04 j 15:15	30°♄	
conjunction	-2166 Nov 07 j 06:26	27°♄56'38	1°48'08	direct	-2160 Sep 19 j 20:10	28°♄17'26	
minimum elong	-2166 Nov 07 j 06:29	27°♄56'38	1°48'07		-2160 Nov 03 j 10:24	0°♄	
max. Earth dist.	-2166 Nov 06 j 18:24	27°♄53'07	11.16904 AU	evening set	-2160 Dec 28 j 11:26	5°♄38'24	
morning rise	-2166 Nov 23 j 16:50	29°♄50'51					
	-2166 Nov 25 j 00:58	0°♄		conjunction	-2159 Jan 14 j 10:51	7°♄44'06	0°-50'-7
retrograde	-2165 Mar 04 j 11:33	6°♄46'31		minimum elong	-2159 Jan 14 j 10:49	7°♄44'05	0°50'10
opposition	-2165 May 14 j 09:48	3°♄29'10	2°00'08	max. Earth dist.	-2159 Jan 14 j 00:59	7°♄41'02	10.54362 AU
min. Earth dist.	-2165 May 14 j 20:59	3°♄27'07	9.14630 AU	morning rise	-2159 Jan 31 j 14:48	9°♄51'16	
direct	-2165 Jul 24 j 09:57	0°♄11'13		retrograde	-2159 May 17 j 11:05	17°♄39'44	
evening set	-2165 Nov 01 j 20:58	7°♄06'33		opposition	-2159 Jul 26 j 14:23	14°♄13'28	-1°-20'-1
				min. Earth dist.	-2159 Jul 26 j 21:32	14°♄12'04	8.47106 AU
conjunction	-2165 Nov 18 j 08:24	9°♄01'40	1°28'06	direct	-2159 Oct 02 j 10:34	10°♄51'45	
minimum elong	-2165 Nov 18 j 08:27	9°♄01'40	1°28'05	evening set	-2158 Jan 10 j 09:22	18°♄22'16	
max. Earth dist.	-2165 Nov 17 j 19:02	8°♄57'44	11.11534 AU				
morning rise	-2165 Dec 04 j 20:42	10°♄57'02		conjunction	-2158 Jan 27 j 12:13	20°♄30'55	-1°-18'-8
	-2164 Jan 12 j 20:01	15°♄		minimum elong	-2158 Jan 27 j 12:10	20°♄30'54	1°18'11
retrograde	-2164 Mar 15 j 07:28	17°♄57'53		max. Earth dist.	-2158 Jan 27 j 05:07	20°♄28'41	10.39994 AU
	-2164 May 20 j 17:11	15°♄		morning rise	-2158 Feb 13 j 19:50	22°♄41'09	
opposition	-2164 May 25 j 09:31	14°♄39'25	1°33'30		-2158 May 02 j 20:39	0°♄	
min. Earth dist.	-2164 May 25 j 21:21	14°♄37'14	9.07945 AU	retrograde	-2158 May 31 j 11:46	0°♄41'38	
direct	-2164 Aug 04 j 00:21	11°♄21'22			-2158 Jun 29 j 07:16	30°♄	
	-2164 Oct 12 j 05:36	15°♄		opposition	-2158 Aug 09 j 03:04	27°♄13'48	-1°-53'-15
evening set	-2164 Nov 12 j 00:50	18°♄18'34		min. Earth dist.	-2158 Aug 09 j 07:31	27°♄12'56	8.32942 AU
				direct	-2158 Oct 15 j 08:58	23°♄50'53	
conjunction	-2164 Nov 28 j 13:52	20°♄15'01	1°04'29		-2157 Jan 11 j 08:31	0°♄	
minimum elong	-2164 Nov 28 j 13:54	20°♄15'02	1°04'26	evening set	-2157 Jan 23 j 20:13	1°♄31'54	
max. Earth dist.	-2164 Nov 28 j 00:57	20°♄11'13	11.03696 AU				
morning rise	-2164 Dec 15 j 04:25	22°♄12'02		conjunction	-2157 Feb 10 j 02:35	3°♄43'34	-1°-42'-54
retrograde	-2163 Mar 27 j 10:27	29°♄19'43		minimum elong	-2157 Feb 10 j 02:32	3°♄43'33	1°42'57
opposition	-2163 Jun 06 j 13:03	25°♄59'52	1°02'49	max. Earth dist.	-2157 Feb 09 j 22:10	3°♄42'09	10.26121 AU
min. Earth dist.	-2163 Jun 07 j 00:10	25°♄57'49	8.98918 AU	morning rise	-2157 Feb 27 j 13:54	5°♄56'52	
direct	-2163 Aug 15 j 17:27	22°♄41'31		retrograde	-2157 Jun 14 j 21:10	14°♄08'48	
evening set	-2163 Nov 23 j 09:35	29°♄42'12		opposition	-2157 Aug 22 j 23:18	10°♄39'38	-2°-21'-30
	-2163 Nov 25 j 22:23	0°♄		min. Earth dist.	-2157 Aug 23 j 01:03	10°♄39'17	8.19673 AU
				direct	-2157 Oct 28 j 16:50	7°♄15'26	
conjunction	-2163 Dec 10 j 00:42	1°♄40'28	0°37'56		-2156 Feb 05 j 21:01	15°♄	
minimum elong	-2163 Dec 10 j 00:43	1°♄40'28	0°37'53	evening set	-2156 Feb 06 j 20:00	15°♄07'17	
max. Earth dist.	-2163 Dec 09 j 12:07	1°♄36'43	10.93661 AU				

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 21

Attention, astronomical year style is used: The year -2156 in astronomical counting style is the year 2157 BCE in historical counting style.

conjunction	-2156 Feb 24 j 06:03	17° $\approx$ 21'54	-2°-2'-41	morning rise	-2150 Jun 12 j 12:42	16° $\text{U}$ 36'32	
minimum elong	-2156 Feb 24 j 06:00	17° $\approx$ 21'53	2°02'43	retrograde	-2150 Sep 24 j 17:31	24° $\text{U}$ 50'16	
max. Earth dist.	-2156 Feb 24 j 04:15	17° $\approx$ 21'19	10.13529 AU	opposition	-2150 Nov 30 j 02:01	21° $\text{U}$ 22'07	-1°-16'-36
morning rise	-2156 Mar 12 j 21:07	19° $\approx$ 38'08		min. Earth dist.	-2150 Nov 29 j 15:22	21° $\text{U}$ 24'20	8.02878 AU
retrograde	-2156 Jun 28 j 14:49	28° $\approx$ 00'07		direct	-2149 Feb 05 j 05:20	17° $\text{U}$ 52'20	
opposition	-2156 Sep 05 j 02:47	24° $\approx$ 29'53	-2°-42'-32	evening set	-2149 May 22 j 09:05	26° $\text{U}$ 09'36	
min. Earth dist.	-2156 Sep 05 j 02:08	24° $\approx$ 30'01	8.08081 AU				
direct	-2156 Nov 10 j 09:50	21° $\approx$ 04'24		conjunction	-2149 Jun 09 j 13:37	28° $\text{U}$ 30'02	0°-45'-7
evening set	-2155 Feb 20 j 08:04	29° $\approx$ 06'37		minimum elong	-2149 Jun 09 j 13:39	28° $\text{U}$ 30'02	0°45'05
	-2155 Feb 27 j 05:11	0° $\text{H}$		max. Earth dist.	-2149 Jun 10 j 03:29	28° $\text{U}$ 34'31	10.07612 AU
					-2149 Jun 21 j 04:08	0° $\text{II}$	
conjunction	-2155 Mar 09 j 22:03	1° $\text{H}$ 23'59	-2°-15'-46	morning rise	-2149 Jun 27 j 15:37	0° $\text{II}$ 49'37	
minimum elong	-2155 Mar 09 j 22:01	1° $\text{H}$ 23'59	2°15'48	retrograde	-2149 Oct 08 j 18:01	8° $\text{II}$ 52'16	
max. Earth dist.	-2155 Mar 09 j 23:28	1° $\text{H}$ 24'27	10.03001 AU	opposition	-2149 Dec 14 j 03:10	5° $\text{II}$ 25'42	0°-35'-46
morning rise	-2155 Mar 27 j 16:49	3° $\text{H}$ 42'54		min. Earth dist.	-2149 Dec 13 j 17:15	5° $\text{II}$ 27'44	8.12881 AU
retrograde	-2155 Jul 13 j 14:10	12° $\text{H}$ 12'28		direct	-2148 Feb 19 j 21:34	1° $\text{II}$ 56'12	
opposition	-2155 Sep 19 j 12:08	8° $\text{H}$ 41'32	-2°-54'-17	evening set	-2148 Jun 05 j 06:23	10° $\text{II}$ 07'10	
min. Earth dist.	-2155 Sep 19 j 09:14	8° $\text{H}$ 42'08	7.98905 AU				
direct	-2155 Nov 24 j 12:10	5° $\text{H}$ 14'50		conjunction	-2148 Jun 23 j 08:41	12° $\text{II}$ 25'09	0°-11'-42
evening set	-2154 Mar 07 j 07:11	13° $\text{H}$ 26'10		minimum elong	-2148 Jun 23 j 08:42	12° $\text{II}$ 25'09	0°11'40
				behind sun begin	-2148 Jun 23 j 03:35	12° $\text{II}$ 23'32	
conjunction	-2154 Mar 25 j 01:15	15° $\text{H}$ 45'55	-2°-20'-48	behind sun end	-2148 Jun 23 j 13:48	12° $\text{II}$ 26'46	
minimum elong	-2154 Mar 25 j 01:16	15° $\text{H}$ 45'55	2°20'49	max. Earth dist.	-2148 Jun 23 j 21:12	12° $\text{II}$ 29'09	10.18745 AU
max. Earth dist.	-2154 Mar 25 j 06:15	15° $\text{H}$ 47'34	9.95234 AU	morning rise	-2148 Jul 11 j 07:26	14° $\text{II}$ 41'59	
morning rise	-2154 Apr 11 j 23:27	18° $\text{H}$ 06'59		retrograde	-2148 Oct 21 j 07:00	22° $\text{II}$ 32'48	
retrograde	-2154 Jul 28 j 16:12	26° $\text{H}$ 40'47		asc. node	-2148 Nov 02 j 00:02	22° $\text{II}$ 25'10	
opposition	-2154 Oct 04 j 01:21	23° $\text{H}$ 09'36	-2°-55'-17	opposition	-2148 Dec 26 j 21:20	19° $\text{II}$ 07'58	0°06'01
min. Earth dist.	-2154 Oct 03 j 20:07	23° $\text{H}$ 10'42	7.92761 AU	min. Earth dist.	-2148 Dec 26 j 12:34	19° $\text{II}$ 09'44	8.24911 AU
direct	-2154 Dec 08 j 23:37	19° $\text{H}$ 41'48		direct	-2147 Mar 05 j 08:12	15° $\text{II}$ 39'02	
evening set	-2153 Mar 22 j 14:38	28° $\text{H}$ 00'08		evening set	-2147 Jun 19 j 17:34	23° $\text{II}$ 42'09	
	-2153 Apr 06 j 19:11	0° $\text{Y}$					
conjunction	-2153 Apr 09 j 12:40	0° $\text{Y}$ 21'43	-2°-16'-59	conjunction	-2147 Jul 07 j 16:12	25° $\text{II}$ 57'06	0°21'38
minimum elong	-2153 Apr 09 j 12:42	0° $\text{Y}$ 21'44	2°16'59	minimum elong	-2147 Jul 07 j 16:11	25° $\text{II}$ 57'06	0°21'41
max. Earth dist.	-2153 Apr 09 j 21:12	0° $\text{Y}$ 24'32	9.90774 AU	max. Earth dist.	-2147 Jul 08 j 02:38	26° $\text{II}$ 00'23	10.31563 AU
morning rise	-2153 Apr 27 j 13:47	2° $\text{Y}$ 44'16		morning rise	-2147 Jul 25 j 10:34	28° $\text{II}$ 10'40	
retrograde	-2153 Aug 12 j 17:15	11° $\text{Y}$ 18'24			-2147 Aug 09 j 14:05	0° $\text{S}$	
opposition	-2153 Oct 18 j 16:34	7° $\text{Y}$ 47'24	-2°-44'-58	retrograde	-2147 Nov 03 j 10:22	5° $\text{S}$ 49'45	
min. Earth dist.	-2153 Oct 18 j 08:57	7° $\text{Y}$ 48'59	7.90078 AU	opposition	-2146 Jan 09 j 08:08	2° $\text{S}$ 26'36	0°46'12
direct	-2153 Dec 23 j 17:05	4° $\text{Y}$ 18'43		min. Earth dist.	-2146 Jan 09 j 00:18	2° $\text{S}$ 28'10	8.38311 AU
evening set	-2152 Apr 06 j 02:52	12° $\text{Y}$ 41'10			-2146 Feb 12 j 10:10	30° $\text{R}$ $\text{II}$	
				direct	-2146 Mar 19 j 11:21	28° $\text{II}$ 58'30	
conjunction	-2152 Apr 24 j 04:22	15° $\text{Y}$ 03'50	-2°-4'-18		-2146 Apr 23 j 07:44	0° $\text{S}$	
minimum elong	-2152 Apr 24 j 04:25	15° $\text{Y}$ 03'51	2°04'17	evening set	-2146 Jul 03 j 17:14	6° $\text{S}$ 52'46	
max. Earth dist.	-2152 Apr 24 j 16:05	15° $\text{Y}$ 07'43	9.89929 AU				
morning rise	-2152 May 12 j 07:36	17° $\text{Y}$ 27'01		conjunction	-2146 Jul 21 j 11:08	9° $\text{S}$ 04'20	0°52'53
retrograde	-2152 Aug 26 j 15:16	25° $\text{Y}$ 57'34		minimum elong	-2146 Jul 21 j 11:06	9° $\text{S}$ 04'19	0°52'56
opposition	-2152 Nov 01 j 07:13	22° $\text{Y}$ 27'07	-2°-23'-51	max. Earth dist.	-2146 Jul 21 j 19:38	9° $\text{S}$ 06'59	10.45365 AU
min. Earth dist.	-2152 Oct 31 j 21:29	22° $\text{Y}$ 29'10	7.91020 AU	morning rise	-2146 Aug 08 j 00:14	11° $\text{S}$ 14'22	
direct	-2151 Jan 06 j 13:37	18° $\text{Y}$ 57'47		retrograde	-2146 Nov 16 j 05:25	18° $\text{S}$ 42'24	
evening set	-2151 Apr 21 j 16:29	27° $\text{Y}$ 21'16		opposition	-2145 Jan 22 j 11:27	15° $\text{S}$ 20'50	1°22'41
				min. Earth dist.	-2145 Jan 22 j 04:28	15° $\text{S}$ 22'12	8.52359 AU
conjunction	-2151 May 09 j 20:30	29° $\text{Y}$ 44'07	-1°-43'-37	direct	-2145 Apr 02 j 05:26	11° $\text{S}$ 53'46	
minimum elong	-2151 May 09 j 20:34	29° $\text{Y}$ 44'08	1°43'36	evening set	-2145 Jul 17 j 04:55	19° $\text{S}$ 38'44	
max. Earth dist.	-2151 May 10 j 10:21	29° $\text{Y}$ 48'41	9.92702 AU				
	-2151 May 11 j 20:40	0° $\text{S}$		conjunction	-2145 Aug 03 j 17:34	21° $\text{S}$ 46'50	1°20'39
morning rise	-2151 May 28 j 00:46	2° $\text{S}$ 07'00		minimum elong	-2145 Aug 03 j 17:31	21° $\text{S}$ 46'49	1°20'42
retrograde	-2151 Sep 10 j 07:52	10° $\text{S}$ 30'24		max. Earth dist.	-2145 Aug 04 j 00:31	21° $\text{S}$ 48'58	10.59435 AU
opposition	-2151 Nov 15 j 18:52	7° $\text{S}$ 00'55	-1°-53'-35	morning rise	-2145 Aug 21 j 01:02	23° $\text{S}$ 53'21	
min. Earth dist.	-2151 Nov 15 j 08:06	7° $\text{S}$ 03'10	7.95428 AU		-2145 Oct 22 j 17:53	0° $\text{Q}$	
direct	-2150 Jan 21 j 10:28	3° $\text{S}$ 31'11		retrograde	-2145 Nov 28 j 15:05	1° $\text{Q}$ 11'23	
evening set	-2150 May 07 j 03:42	11° $\text{S}$ 52'47			-2144 Jan 05 j 06:23	30° $\text{R}$ $\text{S}$	
				opposition	-2144 Feb 04 j 07:28	27° $\text{S}$ 51'15	1°54'00
conjunction	-2150 May 25 j 08:49	14° $\text{S}$ 14'52	-1°-16'-31	min. Earth dist.	-2144 Feb 04 j 01:57	27° $\text{S}$ 52'19	8.66347 AU
minimum elong	-2150 May 25 j 08:52	14° $\text{S}$ 14'53	1°16'30	direct	-2144 Apr 14 j 15:19	24° $\text{S}$ 25'20	
max. Earth dist.	-2150 May 25 j 23:13	14° $\text{S}$ 19'35	9.98764 AU		-2144 Jul 11 j 14:56	0° $\text{Q}$	
	-2150 May 31 j 02:46	15° $\text{S}$		evening set	-2144 Jul 29 j 04:47	2° $\text{Q}$ 01'04	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodiens AG 7-Dez-2017 14:42, page 22

Attention, astronomical year style is used: The year -2144 in astronomical counting style is the year 2145 BCE in historical counting style.

conjunction	-2144 Aug 15 j 12:00	4°00'54"9	1°43'54"	max. Earth dist.	-2138 Oct 22 j 10:24	12°00'18"37	11.19290 AU
minimum elong	-2144 Aug 15 j 11:57	4°00'54"8	1°43'57"	morning rise	-2138 Nov 08 j 04:41	14°00'14"41	
max. Earth dist.	-2144 Aug 15 j 17:06	4°00'07"22	10.73089 AU	retrograde	-2137 Feb 16 j 00:40	21°00'05"35	
morning rise	-2144 Sep 01 j 13:55	6°00'09"01		opposition	-2137 Apr 27 j 17:05	17°00'49"04	2°30'07"
retrograde	-2144 Dec 09 j 18:08	13°00'18"23		min. Earth dist.	-2137 Apr 28 j 01:16	17°00'47"35	9.19373 AU
opposition	-2143 Feb 15 j 20:59	9°00'59"32	2°19'11"	direct	-2137 Jul 08 j 03:34	14°00'30"34	
min. Earth dist.	-2143 Feb 15 j 17:55	10°00'00"07	8.79615 AU	evening set	-2137 Oct 17 j 08:43	21°00'25"51	
direct	-2143 Apr 27 j 16:16	6°00'34"49					
evening set	-2143 Aug 10 j 17:37	14°00'01"45		conjunction	-2137 Nov 02 j 19:14	23°00'19"47	1°55'44"
	-2143 Aug 18 j 22:56	15°00'00'00		minimum elong	-2137 Nov 02 j 19:16	23°00'19"48	1°55'43"
				max. Earth dist.	-2137 Nov 02 j 09:32	23°00'16"57	11.18463 AU
conjunction	-2143 Aug 27 j 19:27	16°00'03"26	2°01'59"	morning rise	-2137 Nov 19 j 05:08	25°00'13"36	
minimum elong	-2143 Aug 27 j 19:24	16°00'03"25	2°02'01"		-2136 Jan 06 j 09:44	0°00'00"00	
max. Earth dist.	-2143 Aug 27 j 21:45	16°00'04"08	10.85718 AU	retrograde	-2136 Feb 27 j 15:38	2°00'07"10	
morning rise	-2143 Sep 13 j 16:22	18°00'03"41			-2136 Apr 22 j 05:23	30°00'00"00	
retrograde	-2143 Dec 21 j 14:18	25°00'05"54		opposition	-2136 May 08 j 12:45	28°00'50"07	2°10'29"
opposition	-2142 Feb 28 j 04:43	21°00'48"05	2°37'42"	min. Earth dist.	-2136 May 08 j 21:19	28°00'48"33	9.17159 AU
min. Earth dist.	-2142 Feb 28 j 04:11	21°00'48"11	8.91603 AU	direct	-2136 Jul 18 j 17:53	25°00'32"06	
direct	-2142 May 10 j 08:26	18°00'24"35			-2136 Oct 04 j 22:15	0°00'00"00	
evening set	-2142 Aug 22 j 20:22	25°00'43"26		evening set	-2136 Oct 27 j 08:56	2°00'26"47	
conjunction	-2142 Sep 08 j 17:21	27°00'42"28	2°14'32"	conjunction	-2136 Nov 12 j 20:02	4°00'21"20	1°37'28"
minimum elong	-2142 Sep 08 j 17:20	27°00'42"28	2°14'34"	minimum elong	-2136 Nov 12 j 20:04	4°00'21"21	1°37'27"
max. Earth dist.	-2142 Sep 08 j 16:29	27°00'42"13	10.96832 AU	max. Earth dist.	-2136 Nov 12 j 09:49	4°00'18"21	11.14966 AU
morning rise	-2142 Sep 25 j 10:06	29°00'40"16		morning rise	-2136 Nov 29 j 07:12	6°00'16"01	
	-2142 Sep 28 j 06:33	0°00'00"00		retrograde	-2135 Mar 10 j 10:41	13°00'13"49	
retrograde	-2141 Jan 02 j 04:15	6°00'36"57		opposition	-2135 May 20 j 10:51	9°00'56"00	1°45'51"
opposition	-2141 Mar 12 j 07:33	3°00'19"54	2°49'22"	min. Earth dist.	-2135 May 20 j 20:07	9°00'54"19	9.12314 AU
min. Earth dist.	-2141 Mar 12 j 08:43	3°00'19"41	9.01852 AU	direct	-2135 Jul 30 j 06:09	6°00'38"16	
	-2141 May 15 j 17:15	30°00'00"00		evening set	-2135 Nov 07 j 11:06	13°00'33"52	
direct	-2141 May 22 j 19:08	29°00'57"35			-2135 Nov 19 j 18:54	15°00'00"00	
	-2141 May 29 j 20:14	0°00'00"00					
evening set	-2141 Sep 03 j 14:14	7°00'09"17		conjunction	-2135 Nov 23 j 23:16	15°00'29"30	1°15'22"
				minimum elong	-2135 Nov 23 j 23:18	15°00'29"30	1°15'21"
conjunction	-2141 Sep 20 j 07:21	9°00'06"12	2°21'28"	max. Earth dist.	-2135 Nov 23 j 11:46	15°00'26"07	11.08918 AU
minimum elong	-2141 Sep 20 j 07:20	9°00'06"11	2°21'29"	morning rise	-2135 Dec 10 j 12:37	17°00'25"32	
max. Earth dist.	-2141 Sep 20 j 04:28	9°00'05"21	11.06024 AU	retrograde	-2134 Mar 22 j 09:50	24°00'29"13	
morning rise	-2141 Oct 06 j 20:44	11°00'02"02		opposition	-2134 Jun 01 j 12:20	21°00'10"23	1°16'52"
retrograde	-2140 Jan 13 j 17:32	17°00'54"50		min. Earth dist.	-2134 Jun 01 j 22:37	21°00'08"29	9.05004 AU
opposition	-2140 Mar 23 j 06:33	14°00'38"17	2°54'12"	direct	-2134 Aug 10 j 20:53	17°00'52"37	
min. Earth dist.	-2140 Mar 23 j 08:59	14°00'37"50	9.09981 AU	evening set	-2134 Nov 18 j 17:11	24°00'50"46	
direct	-2140 Jun 02 j 22:33	11°00'17"08					
evening set	-2140 Sep 14 j 01:08	18°00'22"47		conjunction	-2134 Dec 05 j 07:04	26°00'47"55	0°50'03"
				minimum elong	-2134 Dec 05 j 07:06	26°00'47"56	0°50'00"
conjunction	-2140 Sep 30 j 15:17	20°00'18"07	2°22'50"	max. Earth dist.	-2134 Dec 04 j 18:50	26°00'44"18	11.00514 AU
minimum elong	-2140 Sep 30 j 15:17	20°00'18"07	2°22'50"	morning rise	-2134 Dec 21 j 23:10	28°00'45"46	
max. Earth dist.	-2140 Sep 30 j 11:05	20°00'16"53	11.12965 AU		-2133 Jan 01 j 19:33	0°00'00"00	
morning rise	-2140 Oct 17 j 02:10	22°00'12"35		retrograde	-2133 Apr 03 j 16:19	5°00'56"51	
retrograde	-2139 Jan 24 j 03:54	29°00'03"06		opposition	-2133 Jun 13 j 17:56	2°00'36"46	0°44'19"
opposition	-2139 Apr 04 j 02:58	25°00'46"50	2°52'24"	min. Earth dist.	-2133 Jun 14 j 04:29	2°00'34"48	8.95470 AU
min. Earth dist.	-2139 Apr 04 j 07:29	25°00'46"00	9.15716 AU		-2133 Jul 24 j 08:46	30°00'00"00	
direct	-2139 Jun 14 j 18:54	22°00'26"44		direct	-2133 Aug 22 j 15:00	29°00'18"42	
evening set	-2139 Sep 25 j 06:44	29°00'27"34			-2133 Sep 20 j 07:54	0°00'00"00	
	-2139 Sep 30 j 00:06	0°00'00"00		evening set	-2133 Nov 30 j 04:56	6°00'21"02	
conjunction	-2139 Oct 11 j 18:42	1°00'21"53	2°18'48"	conjunction	-2133 Dec 16 j 21:10	8°00'20"08	0°22'16"
minimum elong	-2139 Oct 11 j 18:43	1°00'21"53	2°18'47"	minimum elong	-2133 Dec 16 j 21:11	8°00'20"08	0°22'13"
max. Earth dist.	-2139 Oct 11 j 12:07	1°00'19"58	11.17432 AU	max. Earth dist.	-2133 Dec 16 j 09:40	8°00'16"41	10.90015 AU
morning rise	-2139 Oct 28 j 04:16	3°00'15"34		morning rise	-2132 Jan 02 j 16:15	10°00'20"09	
retrograde	-2138 Feb 04 j 14:21	10°00'05"27		retrograde	-2132 Apr 15 j 06:11	17°00'40"07	
opposition	-2138 Apr 15 j 22:11	6°00'49"13	2°44'15"	opposition	-2132 Jun 25 j 04:57	14°00'18"34	0°09'10"
min. Earth dist.	-2138 Apr 16 j 04:56	6°00'47"59	9.18883 AU	min. Earth dist.	-2132 Jun 25 j 14:35	14°00'16"46	8.84014 AU
direct	-2138 Jun 26 j 12:43	3°00'30"00		direct	-2132 Sep 02 j 12:48	10°00'59"59	
evening set	-2138 Oct 06 j 08:35	10°00'27"21		desc. node	-2132 Sep 28 j 20:00	11°00'35"23	
				evening set	-2132 Dec 11 j 00:08	18°00'08"05	
conjunction	-2138 Oct 22 j 19:18	12°00'21"12	2°09'40"	conjunction	-2132 Dec 27 j 19:01	20°00'20"28	0°-7'-7"
minimum elong	-2138 Oct 22 j 19:20	12°00'21"12	2°09'38"				

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 23

Attention, astronomical year style is used: The year -2132 in astronomical counting style is the year 2133 BCE in historical counting style.

minimum elong	-2132 Dec 27 j 19:01	20° $\mathbb{A}$ 09'28	0°07'11	evening set	-2125 Feb 28 j 14:51	6° $\mathbb{H}$ 54'31	
behind sun begin	-2132 Dec 27 j 12:32	20° $\mathbb{A}$ 07'32					
behind sun end	-2132 Dec 28 j 01:30	20° $\mathbb{A}$ 11'25		conjunction	-2125 Mar 18 j 06:56	9° $\mathbb{H}$ 12'55	-2°-19'-34
max. Earth dist.	-2132 Dec 27 j 08:26	20° $\mathbb{A}$ 06'17	10.77757 AU	minimum elong	-2125 Mar 18 j 06:55	9° $\mathbb{H}$ 12'55	2°19'35
morning rise	-2131 Jan 13 j 17:21	22° $\mathbb{A}$ 12'00		max. Earth dist.	-2125 Mar 18 j 09:40	9° $\mathbb{H}$ 13'49	9.99766 AU
retrograde	-2131 Apr 28 j 06:20	29° $\mathbb{A}$ 42'10		morning rise	-2125 Apr 05 j 03:11	11° $\mathbb{H}$ 32'44	
opposition	-2131 Jul 07 j 22:18	26° $\mathbb{A}$ 19'02	0°-27'-21	retrograde	-2125 Jul 21 j 21:58	20° $\mathbb{H}$ 04'00	
min. Earth dist.	-2131 Jul 08 j 06:46	26° $\mathbb{A}$ 17'25	8.71017 AU	opposition	-2125 Sep 27 j 13:43	16° $\mathbb{H}$ 32'51	-2°-56'-17
direct	-2131 Sep 14 j 16:13	22° $\mathbb{A}$ 59'38		min. Earth dist.	-2125 Sep 27 j 10:00	16° $\mathbb{H}$ 33'37	7.96173 AU
	-2131 Dec 21 j 02:25	0° $\mathbb{B}$		direct	-2125 Dec 02 j 13:18	13° $\mathbb{H}$ 05'29	
evening set	-2131 Dec 23 j 04:50	0° $\mathbb{B}$ 15'08		evening set	-2124 Mar 14 j 17:29	21° $\mathbb{H}$ 19'53	
conjunction	-2130 Jan 09 j 02:34	2° $\mathbb{B}$ 19'06	0°-36'-49	conjunction	-2124 Apr 01 j 13:33	23° $\mathbb{H}$ 40'29	-2°-20'-1
minimum elong	-2130 Jan 09 j 02:32	2° $\mathbb{B}$ 19'06	0°36'52	minimum elong	-2124 Apr 01 j 13:35	23° $\mathbb{H}$ 40'30	2°20'02
max. Earth dist.	-2130 Jan 08 j 16:02	2° $\mathbb{B}$ 15'52	10.64160 AU	max. Earth dist.	-2124 Apr 01 j 19:24	23° $\mathbb{H}$ 42'25	9.93022 AU
morning rise	-2130 Jan 26 j 04:32	4° $\mathbb{B}$ 24'27		morning rise	-2124 Apr 19 j 13:05	26° $\mathbb{H}$ 02'14	
retrograde	-2130 May 11 j 15:51	12° $\mathbb{B}$ 05'51			-2124 May 22 j 05:10	0° $\mathbb{Y}$	
opposition	-2130 Jul 20 j 22:41	8° $\mathbb{B}$ 41'05	-1°-3'-49	retrograde	-2124 Aug 04 j 23:18	4° $\mathbb{Y}$ 36'03	
min. Earth dist.	-2130 Jul 21 j 06:27	8° $\mathbb{B}$ 39'35	8.56950 AU	opposition	-2124 Oct 11 j 03:23	1° $\mathbb{Y}$ 04'40	-2°-51'-24
direct	-2130 Sep 27 j 00:50	5° $\mathbb{B}$ 20'37		min. Earth dist.	-2124 Oct 10 j 21:36	1° $\mathbb{Y}$ 05'52	7.91125 AU
evening set	-2129 Jan 04 j 20:26	12° $\mathbb{B}$ 45'05			-2124 Oct 24 j 06:43	30° $\mathbb{R}$ $\mathbb{H}$	
conjunction	-2129 Jan 21 j 21:18	14° $\mathbb{B}$ 51'54	-1°-5'-39	direct	-2124 Dec 16 j 02:31	27° $\mathbb{H}$ 36'05	
minimum elong	-2129 Jan 21 j 21:15	14° $\mathbb{B}$ 51'54	1°05'42		-2123 Feb 05 j 13:35	0° $\mathbb{Y}$	
max. Earth dist.	-2129 Jan 21 j 11:27	14° $\mathbb{B}$ 48'50	10.49766 AU	evening set	-2123 Mar 30 j 02:51	5° $\mathbb{Y}$ 56'22	
morning rise	-2129 Feb 08 j 03:04	17° $\mathbb{B}$ 00'16		conjunction	-2123 Apr 17 j 02:41	8° $\mathbb{Y}$ 18'33	-2°-11'-32
retrograde	-2129 May 25 j 09:48	24° $\mathbb{B}$ 53'34		minimum elong	-2123 Apr 17 j 02:44	8° $\mathbb{Y}$ 18'34	2°11'32
opposition	-2129 Aug 03 j 06:44	21° $\mathbb{B}$ 27'11	-1°-38'-26	max. Earth dist.	-2123 Apr 17 j 11:12	8° $\mathbb{Y}$ 21'22	9.89741 AU
min. Earth dist.	-2129 Aug 03 j 13:31	21° $\mathbb{B}$ 25'51	8.42454 AU	morning rise	-2123 May 05 j 04:58	10° $\mathbb{Y}$ 41'29	
direct	-2129 Oct 09 j 18:42	18° $\mathbb{B}$ 05'29		retrograde	-2123 Aug 19 j 22:52	19° $\mathbb{Y}$ 13'57	
evening set	-2128 Jan 18 j 00:04	25° $\mathbb{B}$ 40'07		opposition	-2123 Oct 25 j 17:57	15° $\mathbb{Y}$ 42'48	-2°-35'-22
conjunction	-2128 Feb 04 j 04:24	27° $\mathbb{B}$ 49'56	-1°-32'-1	min. Earth dist.	-2123 Oct 25 j 10:39	15° $\mathbb{Y}$ 44'20	7.89639 AU
minimum elong	-2128 Feb 04 j 04:21	27° $\mathbb{B}$ 49'55	1°32'04	direct	-2123 Dec 30 j 20:51	12° $\mathbb{Y}$ 13'16	
max. Earth dist.	-2128 Feb 03 j 20:48	27° $\mathbb{B}$ 47'31	10.35306 AU	evening set	-2122 Apr 14 j 15:45	20° $\mathbb{Y}$ 36'32	
morning rise	-2128 Feb 21 j 13:52	0° $\mathbb{A}$ 01'22		conjunction	-2122 May 02 j 18:34	22° $\mathbb{Y}$ 59'27	-1°-54'-33
	-2128 Feb 21 j 09:27	0° $\mathbb{A}$		minimum elong	-2122 May 02 j 18:38	22° $\mathbb{Y}$ 59'28	1°54'32
retrograde	-2128 Jun 07 j 12:49	8° $\mathbb{A}$ 06'33		max. Earth dist.	-2122 May 03 j 05:05	23° $\mathbb{Y}$ 02'56	9.90127 AU
opposition	-2128 Aug 15 j 22:32	4° $\mathbb{A}$ 38'37	-2°-9'-8	morning rise	-2122 May 20 j 22:36	25° $\mathbb{Y}$ 22'41	
min. Earth dist.	-2128 Aug 16 j 03:19	4° $\mathbb{A}$ 37'40	8.28328 AU		-2122 Jun 28 j 19:11	0° $\mathbb{B}$	
direct	-2128 Oct 21 j 22:50	1° $\mathbb{A}$ 15'32		retrograde	-2122 Sep 03 j 18:09	3° $\mathbb{B}$ 50'02	
evening set	-2127 Jan 30 j 16:35	9° $\mathbb{A}$ 00'55		opposition	-2122 Nov 09 j 07:00	0° $\mathbb{B}$ 19'34	-2°-9'-16
conjunction	-2127 Feb 17 j 00:41	11° $\mathbb{A}$ 13'47	-1°-54'-15	min. Earth dist.	-2122 Nov 08 j 22:30	0° $\mathbb{B}$ 21'21	7.91805 AU
minimum elong	-2127 Feb 17 j 00:38	11° $\mathbb{A}$ 13'46	1°54'18	direct	-2122 Nov 13 j 04:36	30° $\mathbb{R}$ $\mathbb{Y}$	
max. Earth dist.	-2127 Feb 16 j 20:31	11° $\mathbb{A}$ 12'26	10.21614 AU		-2121 Jan 14 j 17:54	26° $\mathbb{Y}$ 49'24	
morning rise	-2127 Mar 06 j 13:48	13° $\mathbb{A}$ 28'16		evening set	-2121 Mar 16 j 04:38	0° $\mathbb{B}$	
	-2127 Mar 18 j 22:49	15° $\mathbb{A}$			-2121 Apr 30 j 04:13	5° $\mathbb{B}$ 12'35	
retrograde	-2127 Jun 22 j 01:43	21° $\mathbb{A}$ 44'23		conjunction	-2121 May 18 j 08:53	7° $\mathbb{B}$ 35'17	-1°-30'-17
opposition	-2127 Aug 29 j 21:39	18° $\mathbb{A}$ 15'02	-2°-33'-43	minimum elong	-2121 May 18 j 08:57	7° $\mathbb{B}$ 35'18	1°30'16
min. Earth dist.	-2127 Aug 29 j 23:37	18° $\mathbb{A}$ 14'39	8.15403 AU	max. Earth dist.	-2121 May 18 j 20:58	7° $\mathbb{B}$ 39'15	9.94138 AU
	-2127 Oct 22 j 10:17	15° $\mathbb{R}$ $\mathbb{A}$		morning rise	-2121 Jun 05 j 13:21	9° $\mathbb{B}$ 57'50	
direct	-2127 Nov 04 j 10:36	14° $\mathbb{A}$ 50'30			-2121 Jul 18 j 20:41	15° $\mathbb{B}$	
	-2127 Nov 17 j 08:43	15° $\mathbb{A}$		retrograde	-2121 Sep 18 j 06:49	18° $\mathbb{B}$ 16'57	
evening set	-2126 Feb 13 j 21:50	22° $\mathbb{A}$ 46'38			-2121 Nov 21 j 04:53	15° $\mathbb{R}$ $\mathbb{B}$	
conjunction	-2126 Mar 03 j 09:55	25° $\mathbb{A}$ 02'24	-2°-10'-37	opposition	-2121 Nov 23 j 16:34	14° $\mathbb{B}$ 47'35	-1°-35'-9
minimum elong	-2126 Mar 03 j 09:52	25° $\mathbb{A}$ 02'24	2°10'39	min. Earth dist.	-2121 Nov 23 j 06:51	14° $\mathbb{B}$ 49'36	7.97462 AU
max. Earth dist.	-2126 Mar 03 j 09:21	25° $\mathbb{A}$ 02'13	10.09515 AU	direct	-2120 Jan 29 j 14:57	11° $\mathbb{B}$ 17'09	
morning rise	-2126 Mar 21 j 02:40	27° $\mathbb{A}$ 19'45			-2120 Apr 05 j 00:07	15° $\mathbb{B}$	
	-2126 Apr 11 j 21:06	0° $\mathbb{H}$		evening set	-2120 May 14 j 12:36	19° $\mathbb{B}$ 37'18	
retrograde	-2126 Jul 06 j 21:39	5° $\mathbb{H}$ 44'52		conjunction	-2120 Jun 01 j 17:40	21° $\mathbb{B}$ 58'49	-1°00'-39
opposition	-2126 Sep 13 j 03:12	2° $\mathbb{H}$ 14'25	-2°-50'-2	minimum elong	-2120 Jun 01 j 17:43	21° $\mathbb{B}$ 58'50	1°00'38
min. Earth dist.	-2126 Sep 13 j 02:05	2° $\mathbb{H}$ 14'39	8.04452 AU	max. Earth dist.	-2120 Jun 02 j 06:49	22° $\mathbb{B}$ 03'06	10.01473 AU
	-2126 Oct 12 j 23:35	30° $\mathbb{R}$ $\mathbb{A}$		morning rise	-2120 Jun 19 j 21:03	24° $\mathbb{B}$ 19'44	
direct	-2126 Nov 18 j 07:25	28° $\mathbb{A}$ 48'25			-2120 Aug 09 j 16:13	0° $\mathbb{H}$	
	-2126 Dec 24 j 02:07	0° $\mathbb{H}$		retrograde	-2120 Oct 01 j 10:57	2° $\mathbb{H}$ 28'25	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 24

Attention, astronomical year style is used: The year -2120 in astronomical counting style is the year 2121 BCE in historical counting style.

	-2120 Nov 24 j 16:29	30°R8		retrograde	-2114 Dec 16 j 10:23	19°Q47'25	
opposition	-2120 Dec 06 j 20:49	29°800'26	0°-55'-45	opposition	-2113 Feb 22 j 19:09	16°Q29'19	2°29'39
min. Earth dist.	-2120 Dec 06 j 10:18	29°802'37	8.06208 AU	min. Earth dist.	-2113 Feb 22 j 15:50	16°Q29'57	8.86182 AU
direct	-2119 Feb 12 j 09:34	25°830'09			-2113 Mar 15 j 02:38	15°RQ	
	-2119 Apr 27 j 22:13	0°II		direct	-2113 May 04 j 18:53	13°Q05'32	
evening set	-2119 May 29 j 14:14	3°II44'50			-2113 Jun 23 j 07:42	15°Q	
				evening set	-2113 Aug 17 j 13:41	20°Q28'26	
conjunction	-2119 Jun 16 j 18:00	6°II04'16	0°-27'-54				
minimum elong	-2119 Jun 16 j 18:01	6°II04'16	0°27'52	conjunction	-2113 Sep 03 j 13:04	22°Q28'43	2°09'11
max. Earth dist.	-2119 Jun 17 j 07:23	6°II08'34	10.11611 AU	minimum elong	-2113 Sep 03 j 13:02	22°Q28'42	2°09'13
morning rise	-2119 Jul 04 j 18:41	8°II22'42		max. Earth dist.	-2113 Sep 03 j 15:20	22°Q29'23	10.92031 AU
retrograde	-2119 Oct 15 j 05:17	16°II19'42		morning rise	-2113 Sep 20 j 07:41	24°Q27'38	
opposition	-2119 Dec 20 j 18:25	12°II53'23	0°-14'-2		-2113 Nov 16 j 12:00	0°np	
min. Earth dist.	-2119 Dec 20 j 07:51	12°II55'33	8.17459 AU	retrograde	-2113 Dec 28 j 04:47	1°np27'01	
direct	-2118 Feb 26 j 22:22	9°II23'36			-2112 Feb 09 j 02:08	30°RQ	
asc. node	-2118 Apr 27 j 02:17	12°II17'25		opposition	-2112 Mar 06 j 00:32	28°Q09'59	2°44'34
evening set	-2118 Jun 13 j 06:35	17°II30'59		min. Earth dist.	-2112 Mar 05 j 23:48	28°Q10'08	8.97635 AU
				direct	-2112 May 16 j 07:55	24°Q47'33	
conjunction	-2118 Jul 01 j 07:24	19°II47'37	0°05'49		-2112 Aug 10 j 03:31	0°np	
minimum elong	-2118 Jul 01 j 07:23	19°II47'37	0°05'51	evening set	-2112 Aug 28 j 12:20	2°np02'47	
behind sun begin	-2118 Jul 01 j 00:25	19°II45'25					
behind sun end	-2118 Jul 01 j 14:21	19°II49'48		conjunction	-2112 Sep 14 j 07:19	4°np00'40	2°18'47
max. Earth dist.	-2118 Jul 01 j 20:20	19°II51'43	10.23895 AU	minimum elong	-2112 Sep 14 j 07:18	4°np00'39	2°18'49
morning rise	-2118 Jul 19 j 04:02	22°II02'56		max. Earth dist.	-2112 Sep 14 j 06:35	4°np00'27	11.02468 AU
retrograde	-2118 Oct 28 j 14:57	29°II48'00		morning rise	-2112 Sep 30 j 22:06	5°np57'21	
opposition	-2117 Jan 03 j 08:58	26°II23'29	0°27'14	retrograde	-2111 Jan 07 j 19:03	12°np51'58	
min. Earth dist.	-2117 Jan 02 j 23:17	26°II25'26	8.30526 AU	opposition	-2111 Mar 18 j 01:50	9°np35'42	2°52'36
direct	-2117 Mar 13 j 03:52	22°II54'31		min. Earth dist.	-2111 Mar 18 j 04:00	9°np35'18	9.07049 AU
	-2117 Jun 20 j 03:59	0°E		direct	-2111 May 28 j 13:46	6°np14'29	
evening set	-2117 Jun 27 j 11:49	0°E53'21		evening set	-2111 Sep 09 j 03:02	13°np23'04	
conjunction	-2117 Jul 15 j 08:20	3°E06'43	0°38'13	conjunction	-2111 Sep 25 j 18:22	15°np19'05	2°22'45
minimum elong	-2117 Jul 15 j 08:18	3°E06'43	0°38'16	minimum elong	-2111 Sep 25 j 18:21	15°np19'05	2°22'46
max. Earth dist.	-2117 Jul 15 j 19:54	3°E10'21	10.37590 AU	max. Earth dist.	-2111 Sep 25 j 14:11	15°np17'51	11.10674 AU
morning rise	-2117 Aug 02 j 00:01	5°E18'35		morning rise	-2111 Oct 12 j 06:23	17°np14'07	
retrograde	-2117 Nov 10 j 14:50	12°E52'07		retrograde	-2110 Jan 19 j 05:10	24°np05'39	
opposition	-2116 Jan 16 j 15:59	9°E29'25	1°05'45	opposition	-2110 Mar 29 j 23:55	20°np49'47	2°53'52
min. Earth dist.	-2116 Jan 16 j 08:03	9°E31'00	8.44660 AU	min. Earth dist.	-2110 Mar 30 j 04:15	20°np48'59	9.14029 AU
direct	-2116 Mar 26 j 01:39	6°E01'32		direct	-2110 Jun 09 j 15:03	17°np29'40	
evening set	-2116 Jul 10 j 05:32	13°E51'15		evening set	-2110 Sep 20 j 11:25	24°np32'51	
conjunction	-2116 Jul 27 j 20:51	16°E01'07	1°07'50	conjunction	-2110 Oct 07 j 00:15	26°np27'33	2°21'13
minimum elong	-2116 Jul 27 j 20:48	16°E01'06	1°07'52	minimum elong	-2110 Oct 07 j 00:15	26°np27'34	2°21'13
max. Earth dist.	-2116 Jul 28 j 05:43	16°E03'51	10.51944 AU	max. Earth dist.	-2110 Oct 06 j 17:51	26°np25'42	11.16310 AU
morning rise	-2116 Aug 14 j 07:07	18°E09'25		morning rise	-2110 Oct 23 j 10:25	28°np21'33	
retrograde	-2116 Nov 22 j 03:54	25°E32'20			-2110 Nov 07 j 05:17	0°E	
opposition	-2115 Jan 28 j 15:32	22°E11'23	1°39'43	retrograde	-2109 Jan 30 j 17:23	5°E11'44	
min. Earth dist.	-2115 Jan 28 j 09:22	22°E12'36	8.59107 AU	opposition	-2109 Apr 10 j 19:52	1°E55'57	2°48'39
direct	-2115 Apr 08 j 16:24	18°E44'46		min. Earth dist.	-2109 Apr 11 j 01:43	1°E54'53	9.18293 AU
evening set	-2115 Jul 23 j 11:28	26°E25'14			-2109 May 09 j 00:54	30°Rnp	
conjunction	-2115 Aug 09 j 21:13	28°E31'38	1°33'22	direct	-2109 Jun 21 j 12:03	28°np36'46	
minimum elong	-2115 Aug 09 j 21:10	28°E31'37	1°33'24		-2109 Aug 02 j 19:03	0°E	
max. Earth dist.	-2115 Aug 10 j 03:17	28°E33'28	10.66230 AU	evening set	-2109 Oct 01 j 15:16	5°E35'52	
	-2115 Aug 22 j 00:19	0°Q		conjunction	-2109 Oct 18 j 02:38	7°E29'54	2°14'25
morning rise	-2115 Aug 27 j 01:58	0°Q36'28		minimum elong	-2109 Oct 18 j 02:39	7°E29'55	2°14'24
retrograde	-2115 Dec 04 j 10:16	7°Q50'04		max. Earth dist.	-2109 Oct 17 j 18:42	7°E27'36	11.19176 AU
opposition	-2114 Feb 10 j 08:23	4°Q30'40	2°07'55	morning rise	-2109 Nov 03 j 11:54	9°E23'26	
min. Earth dist.	-2114 Feb 10 j 03:36	4°Q31'36	8.73158 AU	retrograde	-2108 Feb 11 j 04:16	16°E13'56	
direct	-2114 Apr 21 j 22:22	1°Q05'28		opposition	-2108 Apr 21 j 15:11	12°E57'57	2°37'16
evening set	-2114 Aug 05 j 05:47	8°Q36'51		min. Earth dist.	-2108 Apr 21 j 22:51	12°E56'33	9.19730 AU
				direct	-2108 Jul 02 j 02:47	9°E39'29	
conjunction	-2114 Aug 22 j 10:08	10°Q40'00	1°53'59	evening set	-2108 Oct 11 j 16:36	16°E35'55	
minimum elong	-2114 Aug 22 j 10:05	10°Q39'59	1°54'01				
max. Earth dist.	-2114 Aug 22 j 14:06	10°Q41'12	10.79786 AU	conjunction	-2108 Oct 28 j 03:10	18°E29'48	2°02'41
morning rise	-2114 Sep 08 j 09:32	12°Q41'40		minimum elong	-2108 Oct 28 j 03:13	18°E29'49	2°02'39
	-2114 Sep 28 j 18:35	15°Q		max. Earth dist.	-2108 Oct 27 j 17:01	18°E26'51	11.19232 AU

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodiens AG 7-Dez-2017 14:42, page 25

Attention, astronomical year style is used: The year -2108 in astronomical counting style is the year 2109 BCE in historical counting style.

morning rise	-2108 Nov 13 j 12:38	20°♂23'27		conjunction	-2101 Jan 03 j 20:02	26°♂58'17	0°-23'-11
retrograde	-2107 Feb 21 j 17:19	27°♂15'55		minimum elong	-2101 Jan 03 j 20:01	26°♂58'16	0°23'15
opposition	-2107 May 03 j 11:01	23°♂59'25	2°20'09	max. Earth dist.	-2101 Jan 03 j 08:52	26°♂54'52	10.68439 AU
min. Earth dist.	-2107 May 03 j 20:52	23°♂57'37	9.18363 AU	morning rise	-2101 Jan 20 j 20:28	29°♂02'32	
direct	-2107 Jul 13 j 17:56	20°♂41'21			-2101 Jan 28 j 22:37	0°♂	
evening set	-2107 Oct 22 j 17:04	27°♂36'34		retrograde	-2101 May 05 j 19:51	6°♂39'19	
				opposition	-2101 Jul 15 j 08:35	3°♂14'38	0°-47'-13
conjunction	-2107 Nov 08 j 03:42	29°♂30'51	1°46'22	min. Earth dist.	-2101 Jul 15 j 17:19	3°♂12'58	8.61397 AU
minimum elong	-2107 Nov 08 j 03:45	29°♂30'52	1°46'21		-2101 Sep 11 j 02:52	30°♂♂	
max. Earth dist.	-2107 Nov 07 j 15:34	29°♂27'19	11.16545 AU	direct	-2101 Sep 21 j 19:03	29°♂54'00	
	-2107 Nov 12 j 07:40	0°♂			-2101 Oct 02 j 09:32	0°♂	
morning rise	-2107 Nov 24 j 14:20	1°♂25'10		evening set	-2101 Dec 30 j 10:04	7°♂14'53	
retrograde	-2106 Mar 05 j 09:18	8°♂21'11					
opposition	-2106 May 15 j 08:23	5°♂03'49	1°57'46	conjunction	-2100 Jan 16 j 09:40	9°♂20'36	0°-52'-38
min. Earth dist.	-2106 May 15 j 19:14	5°♂01'50	9.14290 AU	minimum elong	-2100 Jan 16 j 09:37	9°♂20'35	0°52'41
direct	-2106 Jul 25 j 07:53	1°♂45'56		max. Earth dist.	-2100 Jan 16 j 00:39	9°♂17'48	10.54370 AU
evening set	-2106 Nov 02 j 18:19	8°♂41'23		morning rise	-2100 Feb 02 j 13:37	11°♂27'46	
				retrograde	-2100 May 18 j 10:12	19°♂16'14	
conjunction	-2106 Nov 19 j 05:59	10°♂36'34	1°25'59	opposition	-2100 Jul 27 j 13:17	15°♂49'53	-1°-22'-58
minimum elong	-2106 Nov 19 j 06:02	10°♂36'34	1°25'57	min. Earth dist.	-2100 Jul 27 j 19:35	15°♂48'39	8.47160 AU
max. Earth dist.	-2106 Nov 18 j 17:40	10°♂32'57	11.11219 AU	direct	-2100 Oct 03 j 09:07	12°♂28'09	
morning rise	-2106 Dec 05 j 18:23	12°♂32'02		evening set	-2099 Jan 11 j 08:06	19°♂58'34	
	-2106 Dec 28 j 05:58	15°♂					
retrograde	-2105 Mar 17 j 06:28	19°♂33'15		conjunction	-2099 Jan 28 j 10:56	22°♂07'12	-1°-20'-22
opposition	-2105 May 27 j 08:20	16°♂14'44	1°30'44	minimum elong	-2099 Jan 28 j 10:53	22°♂07'12	1°20'25
min. Earth dist.	-2105 May 27 j 19:07	16°♂12'45	9.07648 AU	max. Earth dist.	-2099 Jan 28 j 03:50	22°♂04'58	10.40079 AU
	-2105 Jun 13 j 17:12	15°♂♂		morning rise	-2099 Feb 14 j 18:36	24°♂17'25	
direct	-2105 Aug 05 j 23:23	12°♂56'45			-2099 Apr 09 j 07:13	0°♂	
	-2105 Sep 25 j 21:25	15°♂		retrograde	-2099 Jun 01 j 10:43	2°♂♂17'48	
evening set	-2105 Nov 13 j 22:34	19°♂54'01			-2099 Jul 26 j 00:08	30°♂♂	
				opposition	-2099 Aug 10 j 01:47	28°♂49'54	-1°-55'-46
conjunction	-2105 Nov 30 j 11:49	21°♂50'34	1°02'04	min. Earth dist.	-2099 Aug 10 j 05:56	28°♂49'05	8.33070 AU
minimum elong	-2105 Nov 30 j 11:51	21°♂50'35	1°02'01	direct	-2099 Oct 16 j 07:26	25°♂26'56	
max. Earth dist.	-2105 Nov 29 j 23:37	21°♂46'58	11.03426 AU		-2099 Dec 29 j 09:16	0°♂	
morning rise	-2105 Dec 17 j 02:29	23°♂47'39		evening set	-2098 Jan 24 j 18:55	3°♂♂07'50	
	-2104 Feb 23 j 08:13	0°♂♂					
retrograde	-2104 Mar 28 j 10:56	0°♂♂55'36		conjunction	-2098 Feb 11 j 01:15	5°♂♂19'27	-1°-44'-43
	-2104 May 02 j 03:17	30°♂♂		minimum elong	-2098 Feb 11 j 01:12	5°♂♂19'26	1°44'46
opposition	-2104 Jun 07 j 12:01	27°♂35'44	0°59'43	max. Earth dist.	-2098 Feb 10 j 20:10	5°♂♂17'50	10.26283 AU
min. Earth dist.	-2104 Jun 07 j 22:34	27°♂33'47	8.98671 AU	morning rise	-2098 Feb 28 j 12:44	7°♂♂32'44	
direct	-2104 Aug 16 j 15:31	24°♂17'26			-2098 May 17 j 11:43	15°♂♂	
	-2104 Nov 12 j 22:29	0°♂♂		retrograde	-2098 Jun 15 j 20:29	15°♂♂44'27	
evening set	-2104 Nov 24 j 07:41	1°♂♂18'09			-2098 Jul 15 j 07:22	15°♂♂♂	
				opposition	-2098 Aug 23 j 21:48	12°♂♂15'14	-2°-23'-26
conjunction	-2104 Dec 10 j 22:50	3°♂♂16'28	0°35'19	min. Earth dist.	-2098 Aug 23 j 23:58	12°♂♂14'48	8.19870 AU
minimum elong	-2104 Dec 10 j 22:51	3°♂♂16'29	0°35'15	direct	-2098 Oct 29 j 14:33	8°♂♂50'57	
max. Earth dist.	-2104 Dec 10 j 09:58	3°♂♂12'38	10.93447 AU		-2097 Jan 24 j 23:23	15°♂♂	
morning rise	-2104 Dec 27 j 16:28	5°♂♂15'37		evening set	-2097 Feb 07 j 18:38	16°♂♂42'40	
retrograde	-2103 Apr 09 j 20:52	12°♂♂31'50					
opposition	-2103 Jun 19 j 20:49	9°♂♂10'28	0°25'37	conjunction	-2097 Feb 25 j 04:42	18°♂♂57'13	-2°-3'-58
min. Earth dist.	-2103 Jun 20 j 07:32	9°♂♂08'27	8.87688 AU	minimum elong	-2097 Feb 25 j 04:40	18°♂♂57'12	2°04'00
direct	-2103 Aug 28 j 10:12	5°♂♂51'35		max. Earth dist.	-2097 Feb 25 j 02:21	18°♂♂56'28	10.13753 AU
evening set	-2103 Dec 05 j 23:20	12°♂♂57'26		morning rise	-2097 Mar 14 j 19:56	21°♂♂13'26	
				retrograde	-2097 Jun 30 j 13:10	29°♂♂35'05	
conjunction	-2103 Dec 22 j 16:53	14°♂♂57'54	0°06'36	opposition	-2097 Sep 07 j 00:54	26°♂♂04'50	-2°-43'-46
minimum elong	-2103 Dec 22 j 16:53	14°♂♂57'54	0°06'33	min. Earth dist.	-2097 Sep 07 j 00:57	26°♂♂04'49	8.08326 AU
behind sun begin	-2103 Dec 22 j 10:18	14°♂♂55'56		direct	-2097 Nov 12 j 08:22	22°♂♂39'16	
behind sun end	-2103 Dec 22 j 23:29	14°♂♂59'52			-2096 Feb 16 j 20:35	0°♂♂	
max. Earth dist.	-2103 Dec 22 j 04:10	14°♂♂54'04	10.81642 AU	evening set	-2096 Feb 22 j 06:28	0°♂♂41'20	
morning rise	-2102 Jan 08 j 13:54	16°♂♂59'27					
desc. node	-2102 Mar 16 j 06:03	23°♂♂17'52		conjunction	-2096 Mar 10 j 20:34	2°♂♂58'38	-2°-16'-27
retrograde	-2102 Apr 22 j 15:25	24°♂♂25'23		minimum elong	-2096 Mar 10 j 20:33	2°♂♂58'38	2°16'29
opposition	-2102 Jul 02 j 11:27	21°♂♂02'23	0°-10'-28	max. Earth dist.	-2096 Mar 10 j 22:00	2°♂♂59'07	10.03259 AU
min. Earth dist.	-2102 Jul 02 j 21:43	21°♂♂00'26	8.75101 AU	morning rise	-2096 Mar 28 j 15:23	5°♂♂17'29	
direct	-2102 Sep 09 j 12:14	17°♂♂42'42		retrograde	-2096 Jul 14 j 11:13	13°♂♂46'41	
evening set	-2102 Dec 17 j 23:35	24°♂♂55'18		opposition	-2096 Sep 20 j 09:50	10°♂♂15'45	-2°-54'-43
				min. Earth dist.	-2096 Sep 20 j 07:11	10°♂♂16'17	7.99174 AU

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 26

Attention, astronomical year style is used: The year -2096 in astronomical counting style is the year 2097 BCE in historical counting style.

direct	-2096 Nov 25 j 11:33	6° $\text{K}$ 48'59		conjunction	-2089 Jun 25 j 05:08	13° $\text{II}$ 55'07	0°-9'-18
evening set	-2095 Mar 08 j 05:16	15° $\text{K}$ 00'07		minimum elong	-2089 Jun 25 j 05:08	13° $\text{II}$ 55'07	0°09'17
				behind sun begin	-2089 Jun 24 j 23:01	13° $\text{II}$ 53'11	
conjunction	-2095 Mar 25 j 23:33	17° $\text{K}$ 19'50	-2°-20'-50	behind sun end	-2089 Jun 25 j 11:15	13° $\text{II}$ 57'03	
minimum elong	-2095 Mar 25 j 23:33	17° $\text{K}$ 19'50	2°20'51	max. Earth dist.	-2089 Jun 25 j 16:33	13° $\text{II}$ 58'45	10.19142 AU
max. Earth dist.	-2095 Mar 26 j 05:00	17° $\text{K}$ 21'38	9.95508 AU	morning rise	-2089 Jul 13 j 03:49	16° $\text{II}$ 11'50	
morning rise	-2095 Apr 12 j 21:44	19° $\text{K}$ 40'50		asc. node	-2089 Oct 07 j 17:30	23° $\text{II}$ 49'06	
retrograde	-2095 Jul 29 j 12:13	28° $\text{K}$ 14'15		retrograde	-2089 Oct 23 j 02:12	24° $\text{II}$ 02'20	
opposition	-2095 Oct 04 j 22:39	24° $\text{K}$ 43'04	-2°-54'-55	opposition	-2089 Dec 28 j 17:02	20° $\text{II}$ 37'33	0°08'59
min. Earth dist.	-2095 Oct 04 j 17:10	24° $\text{K}$ 44'12	7.93037 AU	min. Earth dist.	-2089 Dec 28 j 08:22	20° $\text{II}$ 39'18	8.25267 AU
direct	-2095 Dec 09 j 21:49	21° $\text{K}$ 15'14		direct	-2088 Mar 06 j 04:26	17° $\text{II}$ 08'39	
evening set	-2094 Mar 23 j 12:29	29° $\text{K}$ 33'20		evening set	-2088 Jun 20 j 13:46	25° $\text{II}$ 11'36	
	-2094 Mar 26 j 22:22	0° $\text{V}$					
conjunction	-2094 Apr 10 j 10:45	1° $\text{V}$ 54'55	-2°-16'-22	conjunction	-2088 Jul 08 j 12:16	27° $\text{II}$ 26'29	0°23'59
minimum elong	-2094 Apr 10 j 10:47	1° $\text{V}$ 54'55	2°16'23	minimum elong	-2088 Jul 08 j 12:15	27° $\text{II}$ 26'28	0°24'02
max. Earth dist.	-2094 Apr 10 j 19:49	1° $\text{V}$ 57'55	9.91047 AU	max. Earth dist.	-2088 Jul 08 j 22:12	27° $\text{II}$ 29'36	10.31857 AU
morning rise	-2094 Apr 28 j 11:50	4° $\text{V}$ 17'24		morning rise	-2088 Jul 26 j 06:29	29° $\text{II}$ 39'57	
retrograde	-2094 Aug 13 j 13:47	12° $\text{V}$ 51'10			-2088 Jul 28 j 23:43	0° $\text{E}$	
opposition	-2094 Oct 19 j 13:28	9° $\text{V}$ 20'10	-2°-43'-48	retrograde	-2088 Nov 04 j 06:16	7° $\text{E}$ 18'52	
min. Earth dist.	-2094 Oct 19 j 05:28	9° $\text{V}$ 21'50	7.90345 AU	opposition	-2087 Jan 10 j 03:43	3° $\text{E}$ 55'45	0°49'01
direct	-2094 Dec 24 j 13:30	5° $\text{V}$ 51'28		min. Earth dist.	-2087 Jan 09 j 19:34	3° $\text{E}$ 57'23	8.38535 AU
evening set	-2093 Apr 08 j 00:36	14° $\text{V}$ 13'45		direct	-2087 Mar 20 j 07:02	0° $\text{E}$ 27'43	
				evening set	-2087 Jul 04 j 13:19	8° $\text{E}$ 21'56	
conjunction	-2093 Apr 26 j 02:15	16° $\text{V}$ 36'24	-2°-3'-5	conjunction	-2087 Jul 22 j 07:09	10° $\text{E}$ 33'27	0°55'05
minimum elong	-2093 Apr 26 j 02:18	16° $\text{V}$ 36'25	2°03'05	minimum elong	-2087 Jul 22 j 07:06	10° $\text{E}$ 33'27	0°55'07
max. Earth dist.	-2093 Apr 26 j 14:20	16° $\text{V}$ 40'25	9.90193 AU	max. Earth dist.	-2087 Jul 22 j 15:51	10° $\text{E}$ 36'10	10.45509 AU
morning rise	-2093 May 14 j 05:26	18° $\text{V}$ 59'33		morning rise	-2087 Aug 08 j 19:57	12° $\text{E}$ 43'26	
retrograde	-2093 Aug 28 j 12:55	27° $\text{V}$ 29'43		retrograde	-2087 Nov 17 j 00:50	20° $\text{E}$ 11'26	
opposition	-2093 Nov 03 j 03:50	23° $\text{V}$ 59'20	-2°-21'-59	opposition	-2086 Jan 23 j 07:03	16° $\text{E}$ 49'55	1°25'15
min. Earth dist.	-2093 Nov 02 j 17:59	24° $\text{V}$ 01'23	7.91282 AU	min. Earth dist.	-2086 Jan 23 j 00:15	16° $\text{E}$ 51'15	8.52420 AU
direct	-2092 Jan 08 j 09:27	20° $\text{V}$ 29'59		direct	-2086 Apr 03 j 01:30	13° $\text{E}$ 22'53	
evening set	-2092 Apr 22 j 14:00	28° $\text{V}$ 53'22		evening set	-2086 Jul 18 j 01:03	21° $\text{E}$ 07'58	
	-2092 May 01 j 02:36	0° $\text{E}$					
conjunction	-2092 May 10 j 18:03	1° $\text{E}$ 16'11	-1°-41'-54	conjunction	-2086 Aug 04 j 13:32	23° $\text{E}$ 16'01	1°22'36
minimum elong	-2092 May 10 j 18:07	1° $\text{E}$ 16'12	1°41'53	minimum elong	-2086 Aug 04 j 13:29	23° $\text{E}$ 16'00	1°22'38
max. Earth dist.	-2092 May 11 j 07:57	1° $\text{E}$ 20'46	9.92981 AU	max. Earth dist.	-2086 Aug 04 j 20:35	23° $\text{E}$ 18'11	10.59408 AU
morning rise	-2092 May 28 j 22:17	3° $\text{E}$ 39'02		morning rise	-2086 Aug 21 j 20:41	25° $\text{E}$ 22'30	
retrograde	-2092 Sep 11 j 05:46	12° $\text{E}$ 02'04			-2086 Oct 04 j 00:07	0° $\text{E}$	
opposition	-2092 Nov 16 j 15:21	8° $\text{E}$ 32'40	-1°-51'-10	retrograde	-2086 Nov 29 j 11:58	2° $\text{E}$ 40'39	
min. Earth dist.	-2092 Nov 16 j 04:54	8° $\text{E}$ 34'50	7.95735 AU		-2085 Jan 27 j 15:00	30° $\text{R}$ $\text{E}$	
direct	-2091 Jan 22 j 06:47	5° $\text{E}$ 02'56		opposition	-2085 Feb 05 j 03:27	29° $\text{E}$ 20'35	1°56'13
evening set	-2091 May 08 j 00:56	13° $\text{E}$ 24'24		min. Earth dist.	-2085 Feb 04 j 22:45	29° $\text{E}$ 21'30	8.66242 AU
	-2091 May 20 j 08:02	15° $\text{E}$		direct	-2085 Apr 16 j 10:34	25° $\text{E}$ 54'41	
conjunction	-2091 May 26 j 05:59	15° $\text{E}$ 46'24	-1°-14'-25		-2085 Jun 29 j 07:42	0° $\text{E}$	
minimum elong	-2091 May 26 j 06:03	15° $\text{E}$ 46'26	1°14'24	evening set	-2085 Jul 31 j 00:55	3° $\text{E}$ 30'36	
max. Earth dist.	-2091 May 26 j 20:01	15° $\text{E}$ 51'00	9.99116 AU				
morning rise	-2091 Jun 13 j 09:53	18° $\text{E}$ 08'01		conjunction	-2085 Aug 17 j 07:51	5° $\text{E}$ 35'20	1°45'31
retrograde	-2091 Sep 25 j 14:15	26° $\text{E}$ 21'19		minimum elong	-2085 Aug 17 j 07:47	5° $\text{E}$ 35'19	1°45'33
opposition	-2091 Nov 30 j 22:15	22° $\text{E}$ 53'15	-1°-13'-49	max. Earth dist.	-2085 Aug 17 j 12:15	5° $\text{E}$ 36'40	10.72895 AU
min. Earth dist.	-2091 Nov 30 j 12:15	22° $\text{E}$ 55'19	8.03272 AU	morning rise	-2085 Sep 03 j 09:35	7° $\text{E}$ 38'31	
direct	-2090 Feb 06 j 02:57	19° $\text{E}$ 23'27		retrograde	-2085 Dec 11 j 14:06	14° $\text{E}$ 48'08	
evening set	-2090 May 23 j 06:08	27° $\text{E}$ 40'30		opposition	-2084 Feb 17 j 17:14	11° $\text{E}$ 29'19	2°20'57
				min. Earth dist.	-2084 Feb 17 j 14:58	11° $\text{E}$ 29'45	8.79353 AU
conjunction	-2090 Jun 10 j 10:30	0° $\text{II}$ 00'49	0°-42'-48	direct	-2084 Apr 28 j 11:36	8° $\text{E}$ 04'36	
minimum elong	-2090 Jun 10 j 10:32	0° $\text{II}$ 00'49	0°42'46		-2084 Aug 07 j 00:26	15° $\text{E}$	
	-2090 Jun 10 j 07:59	0° $\text{II}$		evening set	-2084 Aug 11 j 13:53	15° $\text{E}$ 31'48	
max. Earth dist.	-2090 Jun 10 j 23:23	0° $\text{II}$ 04'59	10.08033 AU	conjunction	-2084 Aug 28 j 15:26	17° $\text{E}$ 33'30	2°03'12
morning rise	-2090 Jun 28 j 12:29	2° $\text{II}$ 20'19		minimum elong	-2084 Aug 28 j 15:24	17° $\text{E}$ 33'29	2°03'14
retrograde	-2090 Oct 09 j 12:37	10° $\text{II}$ 22'28		max. Earth dist.	-2084 Aug 28 j 16:37	17° $\text{E}$ 33'51	10.85371 AU
opposition	-2090 Dec 14 j 23:05	6° $\text{II}$ 56'00	0°-32'-48	morning rise	-2084 Sep 14 j 12:19	19° $\text{E}$ 33'47	
min. Earth dist.	-2090 Dec 14 j 13:48	6° $\text{II}$ 57'54	8.13304 AU	retrograde	-2084 Dec 22 j 09:20	26° $\text{E}$ 36'20	
direct	-2089 Feb 20 j 18:53	3° $\text{II}$ 26'31		opposition	-2083 Mar 01 j 01:10	23° $\text{E}$ 18'31	2°38'57
evening set	-2089 Jun 07 j 03:01	11° $\text{II}$ 37'14		min. Earth dist.	-2083 Mar 01 j 00:34	23° $\text{E}$ 18'37	8.91186 AU
				direct	-2083 May 11 j 06:00	19° $\text{E}$ 55'00	
				evening set	-2083 Aug 23 j 16:46	27° $\text{E}$ 14'11	



# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 27

Attention, astronomical year style is used: The year -2083 in astronomical counting style is the year 2084 BCE in historical counting style.

conjunction	-2083 Sep 09 j 13:40	29°♈13'15	2°15'19	conjunction	-2077 Nov 14 j 18:25	5°♍57'47	1°35'28
minimum elong	-2083 Sep 09 j 13:38	29°♈13'14	2°15'21	minimum elong	-2077 Nov 14 j 18:27	5°♍57'48	1°35'27
max. Earth dist.	-2083 Sep 09 j 12:46	29°♈12'59	10.96337 AU	max. Earth dist.	-2077 Nov 14 j 07:57	5°♍54'43	11.13975 AU
	-2083 Sep 16 j 03:37	0°♐		morning rise	-2077 Dec 01 j 05:51	7°♍52'39	
morning rise	-2083 Sep 26 j 06:18	1°♐11'04		retrograde	-2076 Mar 11 j 09:56	14°♍51'04	
retrograde	-2082 Jan 03 j 02:28	8°♐08'11		opposition	-2076 May 21 j 10:39	11°♍33'07	1°43'11
opposition	-2082 Mar 13 j 04:27	4°♐51'05	2°50'04	min. Earth dist.	-2076 May 21 j 20:14	11°♍31'22	9.11323 AU
min. Earth dist.	-2082 Mar 13 j 05:11	4°♐50'57	9.01281 AU	direct	-2076 Jul 31 j 04:49	8°♍15'17	
direct	-2082 May 23 j 16:14	1°♐28'47			-2076 Nov 06 j 18:22	15°♍	
evening set	-2082 Sep 04 j 10:50	8°♐40'47		evening set	-2076 Nov 08 j 09:49	15°♍11'19	
conjunction	-2082 Sep 21 j 03:56	10°♐37'46	2°21'47	conjunction	-2076 Nov 24 j 22:06	17°♍07'07	1°13'00
minimum elong	-2082 Sep 21 j 03:55	10°♐37'46	2°21'48	minimum elong	-2076 Nov 24 j 22:08	17°♍07'07	1°12'59
max. Earth dist.	-2082 Sep 21 j 01:40	10°♐37'06	11.05384 AU	max. Earth dist.	-2076 Nov 24 j 10:29	17°♍03'42	11.07944 AU
morning rise	-2082 Oct 07 j 17:08	12°♐33'40		morning rise	-2076 Dec 11 j 11:45	19°♍03'20	
retrograde	-2081 Jan 14 j 14:52	19°♐26'57		retrograde	-2075 Mar 23 j 10:00	26°♍07'40	
opposition	-2081 Mar 25 j 04:02	16°♐10'20	2°54'19	opposition	-2075 Jun 02 j 12:31	22°♍48'41	1°13'49
min. Earth dist.	-2081 Mar 25 j 06:39	16°♐09'50	9.09277 AU	min. Earth dist.	-2075 Jun 02 j 22:42	22°♍46'49	9.04047 AU
direct	-2081 Jun 04 j 18:33	12°♐49'09		direct	-2075 Aug 11 j 20:40	19°♍30'51	
evening set	-2081 Sep 15 j 22:04	19°♐55'07		evening set	-2075 Nov 19 j 16:17	26°♍29'25	
conjunction	-2081 Oct 02 j 12:08	21°♐50'33	2°22'39	conjunction	-2075 Dec 06 j 06:26	28°♍26'45	0°47'25
minimum elong	-2081 Oct 02 j 12:08	21°♐50'33	2°22'39	minimum elong	-2075 Dec 06 j 06:28	28°♍26'45	0°47'22
max. Earth dist.	-2081 Oct 02 j 07:40	21°♐49'14	11.12204 AU	max. Earth dist.	-2075 Dec 05 j 19:16	28°♍23'26	10.99589 AU
morning rise	-2081 Oct 18 j 23:02	23°♐45'06			-2075 Dec 19 j 09:49	0°♌	
	-2081 Dec 30 j 00:43	0°♑		morning rise	-2075 Dec 22 j 22:41	0°♌24'46	
retrograde	-2080 Jan 26 j 01:52	0°♑36'08		retrograde	-2074 Apr 04 j 16:36	7°♌36'31	
	-2080 Feb 22 j 12:45	30°♑		opposition	-2074 Jun 14 j 18:34	4°♌16'17	0°40'58
opposition	-2080 Apr 05 j 00:53	27°♑19'47	2°51'54	min. Earth dist.	-2074 Jun 15 j 04:04	4°♌14'31	8.94584 AU
min. Earth dist.	-2080 Apr 05 j 06:05	27°♑18'49	9.14907 AU	direct	-2074 Aug 23 j 14:53	0°♌58'12	
direct	-2080 Jun 15 j 16:35	23°♑59'36		evening set	-2074 Dec 01 j 04:31	8°♌00'56	
	-2080 Sep 17 j 03:04	0°♑					
evening set	-2080 Sep 26 j 04:00	1°♑00'49		conjunction	-2074 Dec 17 j 21:00	10°♌00'11	0°19'27
conjunction	-2080 Oct 12 j 15:53	2°♑55'14	2°18'08	minimum elong	-2074 Dec 17 j 21:01	10°♌00'12	0°19'24
minimum elong	-2080 Oct 12 j 15:54	2°♑55'14	2°18'07	max. Earth dist.	-2074 Dec 17 j 10:31	9°♌57'03	10.89181 AU
max. Earth dist.	-2080 Oct 12 j 08:39	2°♑53'07	11.16579 AU	morning rise	-2073 Jan 03 j 16:14	12°♌00'22	
morning rise	-2080 Oct 29 j 01:37	4°♑49'02		retrograde	-2073 Apr 17 j 08:55	19°♌20'59	
retrograde	-2079 Feb 05 j 11:19	11°♑39'28		opposition	-2073 Jun 27 j 05:59	15°♌59'19	0°05'39
opposition	-2079 Apr 16 j 20:30	8°♑23'06	2°43'10	min. Earth dist.	-2073 Jun 27 j 14:38	15°♌57'42	8.83248 AU
min. Earth dist.	-2079 Apr 17 j 03:14	8°♑21'52	9.17988 AU	desc. node	-2073 Aug 25 j 04:33	12°♌46'08	
direct	-2079 Jun 27 j 10:14	5°♑03'48		direct	-2073 Sep 04 j 13:20	12°♌40'43	
evening set	-2079 Oct 07 j 06:07	12°♑01'32		evening set	-2073 Dec 13 j 00:25	19°♌49'12	
conjunction	-2079 Oct 23 j 16:56	13°♑55'31	2°08'31	conjunction	-2073 Dec 29 j 19:23	21°♌50'43	0°-9'-59
minimum elong	-2079 Oct 23 j 16:58	13°♑55'31	2°08'29	minimum elong	-2073 Dec 29 j 19:22	21°♌50'43	0°10'03
max. Earth dist.	-2079 Oct 23 j 08:32	13°♑53'04	11.18362 AU	behind sun begin	-2073 Dec 29 j 13:41	21°♌49'01	
morning rise	-2079 Nov 09 j 02:22	15°♑49'08		behind sun end	-2073 Dec 30 j 01:04	21°♌52'26	
retrograde	-2078 Feb 17 j 00:09	22°♑40'39		max. Earth dist.	-2073 Dec 29 j 08:53	21°♌47'33	10.77073 AU
opposition	-2078 Apr 28 j 15:53	19°♑23'59	2°28'28	morning rise	-2072 Jan 15 j 17:58	23°♌53'25	
min. Earth dist.	-2078 Apr 28 j 23:12	19°♑22'38	9.18413 AU		-2072 Mar 18 j 12:11	0°♌	
direct	-2078 Jul 09 j 02:58	16°♑05'24		retrograde	-2072 Apr 29 j 08:34	1°♌24'05	
evening set	-2078 Oct 18 j 06:34	23°♑01'03			-2072 Jun 11 j 00:10	30°♑	
conjunction	-2078 Nov 03 j 17:17	24°♑55'09	1°54'08	opposition	-2072 Jul 08 j 23:39	28°♌00'54	0°-30'-53
minimum elong	-2078 Nov 03 j 17:19	24°♑55'09	1°54'07	min. Earth dist.	-2072 Jul 09 j 07:50	27°♌59'21	8.70437 AU
max. Earth dist.	-2078 Nov 03 j 08:25	24°♑52'34	11.17486 AU	direct	-2072 Sep 15 j 15:12	24°♌41'28	
morning rise	-2078 Nov 20 j 03:14	26°♑49'07			-2072 Dec 07 j 11:28	0°♌	
	-2078 Dec 20 j 00:20	0°♍		evening set	-2072 Dec 24 j 05:35	1°♌57'20	
retrograde	-2077 Feb 28 j 15:40	3°♍43'16					
opposition	-2077 May 10 j 12:06	0°♍26'05	2°08'18	conjunction	-2071 Jan 10 j 03:22	4°♌01'23	0°-39'-37
min. Earth dist.	-2077 May 10 j 20:20	0°♍24'35	9.16167 AU	minimum elong	-2071 Jan 10 j 03:21	4°♌01'23	0°39'41
	-2077 May 16 j 11:16	30°♑		max. Earth dist.	-2071 Jan 09 j 17:01	3°♌58'12	10.63701 AU
direct	-2077 Jul 20 j 15:38	27°♑08'01		morning rise	-2071 Jan 27 j 05:36	6°♌06'50	
	-2077 Sep 20 j 00:35	0°♍		retrograde	-2071 May 12 j 16:22	13°♌48'37	
evening set	-2077 Oct 29 j 07:14	4°♍03'04		opposition	-2071 Jul 22 j 00:20	10°♌23'48	-1°-7'-10
				min. Earth dist.	-2071 Jul 22 j 08:06	10°♌22'18	8.56622 AU
				direct	-2071 Sep 28 j 02:16	7°♌03'19	
				evening set	-2070 Jan 05 j 21:28	14°♌28'00	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 28

Attention, astronomical year style is used: The year -2070 in astronomical counting style is the year 2071 BCE in historical counting style.

conjunction	-2070 Jan 22 j 22:30	16° $\overline{3}$ 34'52	-1°-8'-13	minimum elong	-2064 Apr 18 j 03:42	9° $\overline{Y}$ 59'04	2°10'28
minimum elong	-2070 Jan 22 j 22:27	16° $\overline{3}$ 34'52	1°08'17	max. Earth dist.	-2064 Apr 18 j 11:38	10° $\overline{Y}$ 01'42	9.90482 AU
max. Earth dist.	-2070 Jan 22 j 13:42	16° $\overline{3}$ 32'07	10.49560 AU	morning rise	-2064 May 06 j 06:03	12° $\overline{Y}$ 21'53	
morning rise	-2070 Feb 09 j 04:23	18° $\overline{3}$ 43'17		retrograde	-2064 Aug 20 j 22:35	20° $\overline{Y}$ 53'32	
retrograde	-2070 May 26 j 10:39	26° $\overline{3}$ 36'49		opposition	-2064 Oct 26 j 17:36	17° $\overline{Y}$ 22'30	-2°-33'-38
opposition	-2070 Aug 04 j 08:23	23° $\overline{3}$ 10'23	-1°-41'-24	min. Earth dist.	-2064 Oct 26 j 10:37	17° $\overline{Y}$ 23'58	7.90410 AU
min. Earth dist.	-2070 Aug 04 j 14:42	23° $\overline{3}$ 09'09	8.42372 AU	direct	-2064 Dec 31 j 21:36	13° $\overline{Y}$ 53'00	
direct	-2070 Oct 10 j 21:13	19° $\overline{3}$ 48'41		evening set	-2063 Apr 15 j 16:04	22° $\overline{Y}$ 15'43	
evening set	-2069 Jan 19 j 01:28	27° $\overline{3}$ 23'23					
conjunction	-2069 Feb 05 j 06:01	29° $\overline{3}$ 33'14	-1°-34'-14	conjunction	-2063 May 03 j 19:03	24° $\overline{Y}$ 38'30	-1°-52'-54
minimum elong	-2069 Feb 05 j 05:58	29° $\overline{3}$ 33'13	1°34'16	minimum elong	-2063 May 03 j 19:07	24° $\overline{Y}$ 38'32	1°52'53
max. Earth dist.	-2069 Feb 04 j 23:40	29° $\overline{3}$ 31'14	10.35319 AU	max. Earth dist.	-2063 May 04 j 05:27	24° $\overline{Y}$ 41'57	9.90928 AU
	-2069 Feb 08 j 18:23	0° $\approx$		morning rise	-2063 May 21 j 23:07	27° $\overline{Y}$ 01'36	
morning rise	-2069 Feb 22 j 15:29	1° $\approx$ 44'42			-2063 Jun 14 j 23:04	0° $\overline{8}$	
retrograde	-2069 Jun 09 j 15:26	9° $\approx$ 49'55		retrograde	-2063 Sep 04 j 16:48	5° $\overline{8}$ 28'06	
opposition	-2069 Aug 17 j 23:55	6° $\approx$ 21'59	-2°-11'-34	opposition	-2063 Nov 10 j 05:59	1° $\overline{8}$ 57'44	-2°-6'-52
min. Earth dist.	-2069 Aug 18 j 03:51	6° $\approx$ 21'12	8.28449 AU	min. Earth dist.	-2063 Nov 09 j 21:21	1° $\overline{8}$ 59'32	7.92610 AU
direct	-2069 Oct 23 j 23:18	2° $\approx$ 58'56			-2063 Dec 05 j 04:42	30° $\overline{R}$ $\overline{Y}$	
evening set	-2068 Feb 01 j 18:14	10° $\approx$ 44'20		direct	-2062 Jan 15 j 18:32	28° $\overline{Y}$ 27'37	
					-2062 Feb 25 j 21:50	0° $\overline{8}$	
				evening set	-2062 May 01 j 04:01	6° $\overline{8}$ 50'12	
conjunction	-2068 Feb 19 j 02:27	12° $\approx$ 57'10	-1°-55'-56	conjunction	-2062 May 19 j 08:50	9° $\overline{8}$ 12'46	-1°-28'-11
minimum elong	-2068 Feb 19 j 02:24	12° $\approx$ 57'09	1°55'59	minimum elong	-2062 May 19 j 08:54	9° $\overline{8}$ 12'47	1°28'10
max. Earth dist.	-2068 Feb 18 j 23:00	12° $\approx$ 56'03	10.21812 AU	max. Earth dist.	-2062 May 19 j 21:09	9° $\overline{8}$ 16'49	9.94946 AU
	-2068 Mar 06 j 02:40	15° $\approx$		morning rise	-2062 Jun 06 j 13:13	11° $\overline{8}$ 35'10	
morning rise	-2068 Mar 07 j 15:33	15° $\approx$ 11'38			-2062 Jul 04 j 13:42	15° $\overline{8}$	
retrograde	-2068 Jun 23 j 04:08	23° $\approx$ 27'36		retrograde	-2062 Sep 19 j 04:34	19° $\overline{8}$ 53'26	
opposition	-2068 Aug 30 j 22:53	19° $\approx$ 58'18	-2°-35'-26	opposition	-2062 Nov 24 j 14:59	16° $\overline{8}$ 24'09	-1°-32'-17
min. Earth dist.	-2068 Aug 31 j 00:02	19° $\approx$ 58'04	8.15694 AU	min. Earth dist.	-2062 Nov 24 j 04:59	16° $\overline{8}$ 26'14	7.98245 AU
direct	-2068 Nov 05 j 11:21	16° $\approx$ 33'49			-2062 Dec 11 j 23:16	15° $\overline{R}$ $\overline{8}$	
evening set	-2067 Feb 14 j 23:28	24° $\approx$ 29'51		direct	-2061 Jan 30 j 14:51	12° $\overline{8}$ 53'47	
conjunction	-2067 Mar 04 j 11:34	26° $\approx$ 45'34	-2°-11'-40		-2061 Mar 20 j 11:53	15° $\overline{8}$	
minimum elong	-2067 Mar 04 j 11:32	26° $\approx$ 45'34	2°11'42	evening set	-2061 May 16 j 11:49	21° $\overline{8}$ 13'21	
max. Earth dist.	-2067 Mar 04 j 10:57	26° $\approx$ 45'22	10.09881 AU				
morning rise	-2067 Mar 22 j 04:24	29° $\approx$ 02'52		conjunction	-2061 Jun 03 j 16:55	23° $\overline{8}$ 34'42	0°-58'-15
	-2067 Mar 29 j 17:43	0° $\overline{H}$		minimum elong	-2061 Jun 03 j 16:58	23° $\overline{8}$ 34'43	0°58'14
retrograde	-2067 Jul 07 j 23:11	7° $\overline{H}$ 27'39		max. Earth dist.	-2061 Jun 04 j 06:26	23° $\overline{8}$ 39'07	10.02230 AU
opposition	-2067 Sep 14 j 04:12	3° $\overline{H}$ 57'17	-2°-50'-54	morning rise	-2061 Jun 21 j 20:05	25° $\overline{8}$ 55'26	
min. Earth dist.	-2067 Sep 14 j 02:54	3° $\overline{H}$ 57'33	8.04899 AU		-2061 Jul 26 j 06:25	0° $\overline{II}$	
direct	-2067 Nov 19 j 08:36	0° $\overline{H}$ 31'20		retrograde	-2061 Oct 03 j 08:21	4° $\overline{II}$ 03'23	
evening set	-2066 Mar 01 j 16:26	8° $\overline{H}$ 37'12		opposition	-2061 Dec 08 j 18:44	0° $\overline{II}$ 35'30	0°-52'-38
				min. Earth dist.	-2061 Dec 08 j 08:19	0° $\overline{II}$ 37'39	8.06919 AU
conjunction	-2066 Mar 19 j 08:33	10° $\overline{H}$ 55'33	-2°-19'-55	direct	-2061 Dec 15 j 23:28	30° $\overline{R}$ $\overline{8}$	
minimum elong	-2066 Mar 19 j 08:33	10° $\overline{H}$ 55'33	2°19'57		-2060 Feb 14 j 07:33	27° $\overline{8}$ 05'14	
max. Earth dist.	-2066 Mar 19 j 10:38	10° $\overline{H}$ 56'14	10.00286 AU	evening set	-2060 Apr 13 j 02:04	0° $\overline{II}$	
morning rise	-2066 Apr 06 j 04:59	13° $\overline{H}$ 15'18			-2060 May 30 j 12:50	5° $\overline{II}$ 19'23	
retrograde	-2066 Jul 22 j 22:29	21° $\overline{H}$ 46'01		conjunction	-2060 Jun 17 j 16:30	7° $\overline{II}$ 38'41	0°-25'-21
opposition	-2066 Sep 28 j 14:19	18° $\overline{H}$ 14'59	-2°-56'-14	minimum elong	-2060 Jun 17 j 16:31	7° $\overline{II}$ 38'41	0°25'20
min. Earth dist.	-2066 Sep 28 j 11:05	18° $\overline{H}$ 15'39	7.96758 AU	max. Earth dist.	-2060 Jun 18 j 05:58	7° $\overline{II}$ 43'00	10.12272 AU
direct	-2066 Dec 03 j 14:08	14° $\overline{H}$ 47'38		morning rise	-2060 Jul 05 j 16:57	9° $\overline{II}$ 56'56	
evening set	-2065 Mar 16 j 18:52	23° $\overline{H}$ 01'42		retrograde	-2060 Oct 16 j 03:44	17° $\overline{II}$ 53'19	
conjunction	-2065 Apr 03 j 14:59	25° $\overline{H}$ 22'13	-2°-19'-38	opposition	-2060 Dec 21 j 15:54	14° $\overline{II}$ 27'05	0°-10'-51
minimum elong	-2065 Apr 03 j 15:01	25° $\overline{H}$ 22'14	2°19'39	min. Earth dist.	-2060 Dec 21 j 06:05	14° $\overline{II}$ 29'05	8.18058 AU
max. Earth dist.	-2065 Apr 03 j 20:03	25° $\overline{H}$ 23'54	9.93669 AU	direct	-2059 Feb 27 j 19:13	10° $\overline{II}$ 57'17	
morning rise	-2065 Apr 21 j 14:42	27° $\overline{H}$ 43'52		asc. node	-2059 Mar 30 j 04:09	11° $\overline{II}$ 45'39	
	-2065 May 09 j 16:14	0° $\overline{Y}$		evening set	-2059 Jun 14 j 04:41	19° $\overline{II}$ 04'15	
retrograde	-2065 Aug 06 j 23:18	6° $\overline{Y}$ 16'59		conjunction	-2059 Jul 02 j 05:16	21° $\overline{II}$ 20'46	0°08'20
opposition	-2065 Oct 13 j 03:34	2° $\overline{Y}$ 45'43	-2°-50'-28	minimum elong	-2059 Jul 02 j 05:15	21° $\overline{II}$ 20'45	0°08'22
min. Earth dist.	-2065 Oct 12 j 22:24	2° $\overline{Y}$ 46'48	7.91819 AU	behind sun begin	-2059 Jul 01 j 22:52	21° $\overline{II}$ 18'45	
	-2065 Nov 20 j 13:15	30° $\overline{R}$ $\overline{H}$		behind sun end	-2059 Jul 02 j 11:39	21° $\overline{II}$ 22'46	
direct	-2065 Dec 18 j 02:52	29° $\overline{H}$ 17'10		max. Earth dist.	-2059 Jul 02 j 17:30	21° $\overline{II}$ 24'38	10.24417 AU
	-2064 Jan 14 j 13:55	0° $\overline{Y}$		morning rise	-2059 Jul 20 j 01:41	23° $\overline{II}$ 35'56	
evening set	-2064 Mar 31 j 03:44	7° $\overline{Y}$ 36'59			-2059 Sep 20 j 21:17	0° $\overline{8}$	
conjunction	-2064 Apr 18 j 03:39	9° $\overline{Y}$ 59'03	-2°-10'-29	retrograde	-2059 Oct 29 j 12:08	1° $\overline{8}$ 20'30	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 29

Attention, astronomical year style is used: The year -2059 in astronomical counting style is the year 2060 BCE in historical counting style.

	-2059 Dec 07 j 16:32	30° $\text{R}\text{II}$		morning rise	-2053 Oct 02 j 18:55	7° $\text{m}$ 29'55	
opposition	-2058 Jan 04 j 06:06	27° $\text{II}$ 56'03	0°30'19	retrograde	-2052 Jan 09 j 15:15	14° $\text{m}$ 25'00	
min. Earth dist.	-2058 Jan 03 j 21:34	27° $\text{II}$ 57'46	8.30972 AU	opposition	-2052 Mar 18 j 23:31	11° $\text{m}$ 08'40	2°52'59
direct	-2058 Mar 14 j 01:38	24° $\text{II}$ 27'03		min. Earth dist.	-2052 Mar 19 j 01:38	11° $\text{m}$ 08'17	9.06422 AU
	-2058 Jun 07 j 20:44	0° $\text{E}$		direct	-2052 May 29 j 11:24	7° $\text{m}$ 47'27	
evening set	-2058 Jun 28 j 09:34	2° $\text{E}$ 25'39		evening set	-2052 Sep 10 j 00:13	14° $\text{m}$ 56'25	
conjunction	-2058 Jul 16 j 05:44	4° $\text{E}$ 38'52	0°40'37	conjunction	-2052 Sep 26 j 15:32	16° $\text{m}$ 52'30	2°22'48
minimum elong	-2058 Jul 16 j 05:42	4° $\text{E}$ 38'52	0°40'39	minimum elong	-2052 Sep 26 j 15:31	16° $\text{m}$ 52'30	2°22'48
max. Earth dist.	-2058 Jul 16 j 15:51	4° $\text{E}$ 42'03	10.37938 AU	max. Earth dist.	-2052 Sep 26 j 11:32	16° $\text{m}$ 51'20	11.10005 AU
morning rise	-2058 Aug 02 j 21:14	6° $\text{E}$ 50'37		morning rise	-2052 Oct 13 j 03:31	18° $\text{m}$ 47'38	
retrograde	-2058 Nov 11 j 10:08	14° $\text{E}$ 53'51		retrograde	-2051 Jan 20 j 04:18	25° $\text{m}$ 39'42	
opposition	-2057 Jan 17 j 12:53	11° $\text{E}$ 01'12	1°08'34	opposition	-2051 Mar 30 j 21:56	22° $\text{m}$ 23'46	2°53'39
min. Earth dist.	-2057 Jan 17 j 05:34	11° $\text{E}$ 02'39	8.44923 AU	min. Earth dist.	-2051 Mar 31 j 01:29	22° $\text{m}$ 23'07	9.13331 AU
direct	-2057 Mar 28 j 00:27	7° $\text{E}$ 33'17		direct	-2051 Jun 10 j 13:46	19° $\text{m}$ 03'39	
evening set	-2057 Jul 12 j 02:51	15° $\text{E}$ 22'52		evening set	-2051 Sep 21 j 08:52	26° $\text{m}$ 07'10	
conjunction	-2057 Jul 29 j 17:51	17° $\text{E}$ 32'38	1°10'00	conjunction	-2051 Oct 07 j 21:46	28° $\text{m}$ 02'00	2°20'46
minimum elong	-2057 Jul 29 j 17:48	17° $\text{E}$ 32'37	1°10'02	minimum elong	-2051 Oct 07 j 21:47	28° $\text{m}$ 02'00	2°20'45
max. Earth dist.	-2057 Jul 30 j 01:36	17° $\text{E}$ 35'02	10.52101 AU	max. Earth dist.	-2051 Oct 07 j 16:18	28° $\text{m}$ 00'24	11.15601 AU
morning rise	-2057 Aug 16 j 03:56	19° $\text{E}$ 40'51		morning rise	-2051 Oct 24 j 07:51	29° $\text{m}$ 56'05	
retrograde	-2057 Nov 24 j 00:25	27° $\text{E}$ 03'41			-2051 Oct 24 j 21:38	0° $\text{E}$	
opposition	-2056 Jan 30 j 12:18	23° $\text{E}$ 42'43	1°42'11	retrograde	-2050 Jan 31 j 15:50	6° $\text{E}$ 46'46	
min. Earth dist.	-2056 Jan 30 j 06:01	23° $\text{E}$ 43'57	8.59171 AU	opposition	-2050 Apr 11 j 18:30	3° $\text{E}$ 30'56	2°47'49
direct	-2056 Apr 09 j 14:02	20° $\text{E}$ 16'05		min. Earth dist.	-2050 Apr 12 j 00:08	3° $\text{E}$ 29'54	9.17572 AU
evening set	-2056 Jul 24 j 08:25	27° $\text{E}$ 56'31		direct	-2050 Jun 22 j 08:37	0° $\text{E}$ 11'46	
				evening set	-2050 Oct 02 j 13:01	7° $\text{E}$ 11'09	
conjunction	-2056 Aug 10 j 18:02	0° $\text{O}$ 02'52	1°35'12	conjunction	-2050 Oct 19 j 00:20	9° $\text{E}$ 05'18	2°13'28
minimum elong	-2056 Aug 10 j 17:59	0° $\text{O}$ 02'51	1°35'14	minimum elong	-2050 Oct 19 j 00:22	9° $\text{E}$ 05'18	2°13'27
	-2056 Aug 10 j 08:36	0° $\text{O}$		max. Earth dist.	-2050 Oct 18 j 16:23	9° $\text{E}$ 02'59	11.18452 AU
max. Earth dist.	-2056 Aug 10 j 23:57	0° $\text{O}$ 04'41	10.66188 AU	morning rise	-2050 Nov 04 j 09:43	10° $\text{E}$ 58'57	
morning rise	-2056 Aug 27 j 22:31	2° $\text{O}$ 07'40		retrograde	-2049 Feb 12 j 03:29	17° $\text{E}$ 49'59	
retrograde	-2056 Dec 05 j 07:14	9° $\text{O}$ 21'20		opposition	-2049 Apr 23 j 14:21	14° $\text{E}$ 33'57	2°35'50
opposition	-2055 Feb 11 j 05:09	6° $\text{O}$ 01'55	2°09'57	min. Earth dist.	-2049 Apr 23 j 22:26	14° $\text{E}$ 32'28	9.19000 AU
min. Earth dist.	-2055 Feb 11 j 00:15	6° $\text{O}$ 02'51	8.73015 AU	direct	-2049 Jul 04 j 01:36	11° $\text{E}$ 15'27	
direct	-2055 Apr 22 j 18:45	2° $\text{O}$ 36'41		evening set	-2049 Oct 13 j 14:44	18° $\text{E}$ 12'13	
evening set	-2055 Aug 06 j 02:43	10° $\text{O}$ 08'12					
conjunction	-2055 Aug 23 j 06:56	12° $\text{O}$ 11'20	1°55'26	conjunction	-2049 Oct 30 j 01:19	20° $\text{E}$ 06'14	2°01'15
minimum elong	-2055 Aug 23 j 06:53	12° $\text{O}$ 11'20	1°55'28	minimum elong	-2049 Oct 30 j 01:21	20° $\text{E}$ 06'15	2°01'13
max. Earth dist.	-2055 Aug 23 j 11:11	12° $\text{O}$ 12'37	10.79538 AU	max. Earth dist.	-2049 Oct 29 j 14:45	20° $\text{E}$ 03'10	11.18502 AU
morning rise	-2055 Sep 09 j 06:01	14° $\text{O}$ 12'59		morning rise	-2049 Nov 15 j 11:01	22° $\text{E}$ 00'01	
	-2055 Sep 15 j 23:26	15° $\text{O}$		retrograde	-2048 Feb 23 j 16:16	28° $\text{E}$ 53'01	
retrograde	-2055 Dec 17 j 07:24	21° $\text{O}$ 18'57		opposition	-2048 May 04 j 10:29	25° $\text{E}$ 36'27	2°18'08
opposition	-2054 Feb 23 j 16:07	18° $\text{O}$ 00'51	2°31'11	min. Earth dist.	-2048 May 04 j 20:15	25° $\text{E}$ 34'40	9.17626 AU
min. Earth dist.	-2054 Feb 23 j 13:28	18° $\text{O}$ 01'22	8.85841 AU	direct	-2048 Jul 14 j 16:39	22° $\text{E}$ 18'24	
	-2054 Apr 13 j 19:11	15° $\text{R}$ 0		evening set	-2048 Oct 23 j 15:34	29° $\text{E}$ 13'57	
direct	-2054 May 05 j 15:49	14° $\text{O}$ 37'03			-2048 Oct 30 j 07:39	0° $\text{M}$	
	-2054 May 27 j 09:49	15° $\text{O}$		conjunction	-2048 Nov 09 j 02:24	1° $\text{M}$ 08'22	1°44'29
evening set	-2054 Aug 18 j 10:42	22° $\text{O}$ 00'11		minimum elong	-2048 Nov 09 j 02:27	1° $\text{M}$ 08'23	1°44'28
conjunction	-2054 Sep 04 j 09:51	24° $\text{O}$ 00'29	2°10'12	max. Earth dist.	-2048 Nov 08 j 15:01	1° $\text{M}$ 05'03	11.15807 AU
minimum elong	-2054 Sep 04 j 09:49	24° $\text{O}$ 00'28	2°10'14	morning rise	-2048 Nov 25 j 13:09	3° $\text{M}$ 02'50	
max. Earth dist.	-2054 Sep 04 j 11:36	24° $\text{O}$ 01'00	10.91597 AU	retrograde	-2047 Mar 06 j 09:10	9° $\text{M}$ 59'26	
morning rise	-2054 Sep 21 j 04:18	25° $\text{O}$ 59'26		opposition	-2047 May 16 j 08:20	6° $\text{M}$ 42'00	1°55'15
	-2054 Oct 29 j 01:21	0° $\text{m}$		min. Earth dist.	-2047 May 16 j 18:16	6° $\text{M}$ 40'11	9.13546 AU
retrograde	-2054 Dec 29 j 02:37	2° $\text{m}$ 59'10		direct	-2047 Jul 26 j 07:44	3° $\text{M}$ 24'08	
	-2053 Mar 03 j 22:31	30° $\text{R}$ 0		evening set	-2047 Nov 03 j 17:18	10° $\text{M}$ 19'55	
opposition	-2053 Mar 07 j 21:57	29° $\text{O}$ 42'07	2°45'32	conjunction	-2047 Nov 20 j 05:10	12° $\text{M}$ 15'15	1°23'42
min. Earth dist.	-2053 Mar 07 j 22:00	29° $\text{O}$ 42'07	8.97131 AU	minimum elong	-2047 Nov 20 j 05:13	12° $\text{M}$ 15'16	1°23'41
direct	-2053 May 18 j 04:28	26° $\text{O}$ 19'40		max. Earth dist.	-2047 Nov 19 j 17:42	12° $\text{M}$ 11'53	11.10483 AU
	-2053 Jul 27 j 19:30	0° $\text{m}$		morning rise	-2047 Dec 06 j 17:39	14° $\text{M}$ 10'52	
evening set	-2053 Aug 30 j 09:21	3° $\text{m}$ 35'13			-2047 Dec 13 j 22:40	15° $\text{M}$	
conjunction	-2053 Sep 16 j 04:07	5° $\text{m}$ 33'09	2°19'19	retrograde	-2046 Mar 18 j 08:36	21° $\text{M}$ 12'39	
minimum elong	-2053 Sep 16 j 04:05	5° $\text{m}$ 33'08	2°19'21	opposition	-2046 May 28 j 08:53	17° $\text{M}$ 54'06	1°27'45
max. Earth dist.	-2053 Sep 16 j 02:31	5° $\text{m}$ 32'40	11.01891 AU	min. Earth dist.	-2046 May 28 j 19:02	17° $\text{M}$ 52'14	9.06921 AU

Attention, astronomical year style is used: The year -2046 in astronomical counting style is the year 2047 BCE in historical counting style.

	-2046 Jul 15 j 15:18	15° $\mathbb{R}\mathbb{M}$		retrograde	-2040 Jun 02 j 13:46	4° $\approx$ 01'47	
direct	-2046 Aug 06 j 22:45	14° $\mathbb{M}$ 36'09		opposition	-2040 Aug 11 j 03:49	0° $\approx$ 33'51	-1°-58'-32
	-2046 Aug 28 j 22:34	15° $\mathbb{M}$		min. Earth dist.	-2040 Aug 11 j 08:12	0° $\approx$ 32'59	8.33002 AU
evening set	-2046 Nov 14 j 22:09	21° $\mathbb{M}$ 33'44			-2040 Aug 18 j 07:30	30° $\mathbb{R}\mathbb{Z}$	
				direct	-2040 Oct 17 j 08:19	27° $\mathbb{Z}$ 10'49	
conjunction	-2046 Dec 01 j 11:29	23° $\mathbb{M}$ 30'25	0°59'28		-2040 Dec 13 j 09:13	0° $\approx$	
minimum elong	-2046 Dec 01 j 11:31	23° $\mathbb{M}$ 30'25	0°59'26	evening set	-2039 Jan 25 j 20:51	4° $\approx$ 51'46	
max. Earth dist.	-2046 Nov 30 j 23:08	23° $\mathbb{M}$ 26'46	11.02725 AU				
morning rise	-2046 Dec 18 j 02:27	25° $\mathbb{M}$ 27'40		conjunction	-2039 Feb 12 j 03:14	7° $\approx$ 03'23	-1°-46'-43
	-2045 Jan 31 j 05:44	0° $\mathbb{Z}$		minimum elong	-2039 Feb 12 j 03:11	7° $\approx$ 03'22	1°46'45
retrograde	-2045 Mar 30 j 11:17	2° $\mathbb{Z}$ 36'09		max. Earth dist.	-2039 Feb 11 j 22:16	7° $\approx$ 01'48	10.26294 AU
	-2045 May 30 j 14:56	30° $\mathbb{R}\mathbb{M}$		morning rise	-2039 Mar 01 j 14:53	9° $\approx$ 16'40	
opposition	-2045 Jun 09 j 13:03	29° $\mathbb{M}$ 16'14	0°56'24		-2039 Apr 23 j 02:51	15° $\approx$	
min. Earth dist.	-2045 Jun 09 j 23:49	29° $\mathbb{M}$ 14'15	8.97994 AU	retrograde	-2039 Jun 16 j 21:41	17° $\approx$ 28'21	
direct	-2045 Aug 18 j 14:34	25° $\mathbb{M}$ 57'55			-2039 Aug 12 j 03:43	15° $\mathbb{R}\mathbb{M}$	
	-2045 Oct 30 j 04:37	0° $\mathbb{Z}$		opposition	-2039 Aug 24 j 23:42	13° $\approx$ 59'05	-2°-25'-33
evening set	-2045 Nov 26 j 07:45	2° $\mathbb{Z}$ 59'00		min. Earth dist.	-2039 Aug 25 j 02:05	13° $\approx$ 58'37	8.19965 AU
				direct	-2039 Oct 30 j 17:18	10° $\approx$ 34'45	
conjunction	-2045 Dec 12 j 23:02	4° $\mathbb{Z}$ 57'26	0°32'30		-2038 Jan 11 j 01:17	15° $\approx$	
minimum elong	-2045 Dec 12 j 23:03	4° $\mathbb{Z}$ 57'27	0°32'27	evening set	-2038 Feb 08 j 20:31	18° $\approx$ 26'24	
max. Earth dist.	-2045 Dec 12 j 10:07	4° $\mathbb{Z}$ 53'35	10.92810 AU				
morning rise	-2045 Dec 29 j 17:00	6° $\mathbb{Z}$ 56'43		conjunction	-2038 Feb 26 j 06:47	20° $\approx$ 40'57	-2°-5'-22
retrograde	-2044 Apr 10 j 21:57	14° $\mathbb{Z}$ 13'28		minimum elong	-2038 Feb 26 j 06:45	20° $\approx$ 40'56	2°05'24
opposition	-2044 Jun 20 j 22:12	10° $\mathbb{Z}$ 52'02	0°22'04	max. Earth dist.	-2038 Feb 26 j 05:10	20° $\approx$ 40'26	10.13918 AU
min. Earth dist.	-2044 Jun 21 j 09:00	10° $\mathbb{Z}$ 50'00	8.87087 AU	morning rise	-2038 Mar 15 j 22:05	22° $\approx$ 57'07	
direct	-2044 Aug 29 j 11:55	7° $\mathbb{Z}$ 33'07			-2038 May 23 j 15:56	0° $\mathbb{H}$	
evening set	-2044 Dec 06 j 23:49	14° $\mathbb{Z}$ 39'16		retrograde	-2038 Jul 01 j 13:30	1° $\mathbb{H}$ 18'33	
					-2038 Aug 09 j 20:51	30° $\mathbb{R}\mathbb{M}$	
conjunction	-2044 Dec 23 j 17:37	16° $\mathbb{Z}$ 39'52	0°03'41	opposition	-2038 Sep 08 j 02:24	27° $\approx$ 48'16	-2°-45'-4
minimum elong	-2044 Dec 23 j 17:38	16° $\mathbb{Z}$ 39'52	0°03'38	min. Earth dist.	-2038 Sep 08 j 02:14	27° $\approx$ 48'18	8.08567 AU
behind sun begin	-2044 Dec 23 j 10:41	16° $\mathbb{Z}$ 37'47		direct	-2038 Nov 13 j 10:58	24° $\approx$ 22'39	
behind sun end	-2044 Dec 24 j 00:35	16° $\mathbb{Z}$ 41'57			-2037 Feb 03 j 21:34	0° $\mathbb{H}$	
max. Earth dist.	-2044 Dec 23 j 05:55	16° $\mathbb{Z}$ 36'20	10.81087 AU	evening set	-2037 Feb 23 j 08:20	2° $\mathbb{H}$ 24'32	
morning rise	-2043 Jan 09 j 14:47	18° $\mathbb{Z}$ 41'32					
desc. node	-2043 Feb 07 j 19:04	21° $\mathbb{Z}$ 56'06		conjunction	-2037 Mar 12 j 22:39	4° $\mathbb{H}$ 41'49	-2°-17'-10
retrograde	-2043 Apr 23 j 17:28	26° $\mathbb{Z}$ 07'56		minimum elong	-2037 Mar 12 j 22:38	4° $\mathbb{H}$ 41'49	2°17'12
opposition	-2043 Jul 03 j 13:08	22° $\mathbb{Z}$ 44'51	0°-14'-6	max. Earth dist.	-2037 Mar 13 j 00:59	4° $\mathbb{H}$ 42'35	10.03551 AU
min. Earth dist.	-2043 Jul 03 j 22:37	22° $\mathbb{Z}$ 43'03	8.74602 AU	morning rise	-2037 Mar 30 j 17:26	7° $\mathbb{H}$ 00'36	
direct	-2043 Sep 10 j 13:07	19° $\mathbb{Z}$ 25'10		retrograde	-2037 Jul 16 j 11:40	15° $\mathbb{H}$ 29'24	
evening set	-2043 Dec 19 j 00:33	26° $\mathbb{Z}$ 38'01		opposition	-2037 Sep 22 j 10:44	11° $\mathbb{H}$ 58'26	-2°-55'-9
				min. Earth dist.	-2037 Sep 22 j 07:30	11° $\mathbb{H}$ 59'06	7.99526 AU
conjunction	-2042 Jan 04 j 21:13	28° $\mathbb{Z}$ 41'05	0°-26'-6	direct	-2037 Nov 27 j 12:31	8° $\mathbb{H}$ 31'38	
minimum elong	-2042 Jan 04 j 21:12	28° $\mathbb{Z}$ 41'05	0°26'10	evening set	-2036 Mar 09 j 06:52	16° $\mathbb{H}$ 42'29	
max. Earth dist.	-2042 Jan 04 j 11:12	28° $\mathbb{Z}$ 38'01	10.67994 AU				
	-2042 Jan 15 j 15:19	0° $\mathbb{Z}$		conjunction	-2036 Mar 27 j 01:18	19° $\mathbb{H}$ 02'09	-2°-20'-49
morning rise	-2042 Jan 21 j 21:45	0° $\mathbb{Z}$ 45'26		minimum elong	-2036 Mar 27 j 01:18	19° $\mathbb{H}$ 02'10	2°20'51
retrograde	-2042 May 06 j 22:09	8° $\mathbb{Z}$ 22'37		max. Earth dist.	-2036 Mar 27 j 07:18	19° $\mathbb{H}$ 04'08	9.95900 AU
opposition	-2042 Jul 16 j 10:32	4° $\mathbb{Z}$ 57'50	0°-50'-45	morning rise	-2036 Apr 13 j 23:26	21° $\mathbb{H}$ 23'05	
min. Earth dist.	-2042 Jul 16 j 18:10	4° $\mathbb{Z}$ 56'22	8.61025 AU	retrograde	-2036 Jul 30 j 13:21	29° $\mathbb{H}$ 55'58	
direct	-2042 Sep 22 j 20:30	1° $\mathbb{Z}$ 37'11		opposition	-2036 Oct 05 j 23:05	26° $\mathbb{H}$ 24'46	-2°-54'-25
evening set	-2042 Dec 31 j 11:31	8° $\mathbb{Z}$ 58'16		min. Earth dist.	-2036 Oct 05 j 17:08	26° $\mathbb{H}$ 26'00	7.93470 AU
				direct	-2036 Dec 10 j 21:26	22° $\mathbb{H}$ 56'54	
conjunction	-2041 Jan 17 j 11:12	11° $\mathbb{Z}$ 04'03	0°-55'-24		-2035 Mar 14 j 20:02	0° $\mathbb{Y}$	
minimum elong	-2041 Jan 17 j 11:10	11° $\mathbb{Z}$ 04'03	0°55'27	evening set	-2035 Mar 24 j 13:35	1° $\mathbb{Y}$ 14'39	
max. Earth dist.	-2041 Jan 17 j 02:22	11° $\mathbb{Z}$ 01'19	10.54065 AU				
morning rise	-2041 Feb 03 j 15:21	13° $\mathbb{Z}$ 11'18		conjunction	-2035 Apr 11 j 11:58	3° $\mathbb{Y}$ 36'09	-2°-15'-38
retrograde	-2041 May 20 j 13:16	21° $\mathbb{Z}$ 00'01		minimum elong	-2035 Apr 11 j 12:00	3° $\mathbb{Y}$ 36'10	2°15'39
opposition	-2041 Jul 29 j 15:20	17° $\mathbb{Z}$ 33'36	-1°-26'-13	max. Earth dist.	-2035 Apr 11 j 21:04	3° $\mathbb{Y}$ 39'10	9.91510 AU
min. Earth dist.	-2041 Jul 29 j 21:15	17° $\mathbb{Z}$ 32'27	8.46934 AU	morning rise	-2035 Apr 29 j 13:05	5° $\mathbb{Y}$ 58'35	
direct	-2041 Oct 05 j 10:17	14° $\mathbb{Z}$ 11'49		retrograde	-2035 Aug 14 j 15:17	14° $\mathbb{Y}$ 31'42	
evening set	-2040 Jan 13 j 09:55	21° $\mathbb{Z}$ 42'23		opposition	-2035 Oct 20 j 13:22	11° $\mathbb{Y}$ 00'44	-2°-42'-27
				min. Earth dist.	-2035 Oct 20 j 05:26	11° $\mathbb{Y}$ 02'23	7.90828 AU
conjunction	-2040 Jan 30 j 12:46	23° $\mathbb{Z}$ 51'03	-1°-22'-49	direct	-2035 Dec 25 j 13:38	7° $\mathbb{Y}$ 32'00	
minimum elong	-2040 Jan 30 j 12:43	23° $\mathbb{Z}$ 51'02	1°22'52	evening set	-2034 Apr 09 j 01:24	15° $\mathbb{Y}$ 53'57	
max. Earth dist.	-2040 Jan 30 j 05:21	23° $\mathbb{Z}$ 48'42	10.39927 AU				
morning rise	-2040 Feb 16 j 20:39	26° $\mathbb{Z}$ 01'19		conjunction	-2034 Apr 27 j 03:05	18° $\mathbb{Y}$ 16'31	-2°-1'-43
	-2040 Mar 22 j 15:01	0° $\approx$		minimum elong	-2034 Apr 27 j 03:09	18° $\mathbb{Y}$ 16'32	2°01'42

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 31

Attention, astronomical year style is used: The year -2034 in astronomical counting style is the year 2035 BCE in historical counting style.

max. Earth dist.	-2034 Apr 27 j 14:32	18° $\Upsilon$ 20'18	9.90696 AU	max. Earth dist.	-2028 Jul 23 j 13:27	12° $\Theta$ 09'29	10.45891 AU
morning rise	-2034 May 15 j 06:22	20° $\Upsilon$ 39'35		morning rise	-2028 Aug 09 j 17:15	14° $\Theta$ 16'37	
retrograde	-2034 Aug 29 j 12:56	29° $\Upsilon$ 09'03		retrograde	-2028 Nov 17 j 22:47	21° $\Theta$ 44'25	
opposition	-2034 Nov 04 j 03:11	25° $\Upsilon$ 38'45	-2°-19'-53	opposition	-2027 Jan 24 j 04:26	18° $\Theta$ 22'59	1°27'57
min. Earth dist.	-2034 Nov 03 j 18:02	25° $\Upsilon$ 40'40	7.91792 AU	min. Earth dist.	-2027 Jan 23 j 22:36	18° $\Theta$ 24'08	8.52710 AU
direct	-2033 Jan 09 j 09:50	22° $\Upsilon$ 09'23		direct	-2027 Apr 03 j 22:22	14° $\Theta$ 55'59	
	-2033 Apr 20 j 09:15	0° $\text{R}$		evening set	-2027 Jul 18 j 22:45	22° $\Theta$ 40'58	
evening set	-2033 Apr 24 j 14:22	0° $\text{R}$ 32'27					
				conjunction	-2027 Aug 05 j 10:54	24° $\Theta$ 48'57	1°24'37
conjunction	-2033 May 12 j 18:23	2° $\text{R}$ 55'10	-1°-39'-59	minimum elong	-2027 Aug 05 j 10:51	24° $\Theta$ 48'56	1°24'39
minimum elong	-2033 May 12 j 18:27	2° $\text{R}$ 55'11	1°39'58	max. Earth dist.	-2027 Aug 05 j 16:58	24° $\Theta$ 50'48	10.59586 AU
max. Earth dist.	-2033 May 13 j 07:12	2° $\text{R}$ 59'23	9.93509 AU	morning rise	-2027 Aug 22 j 17:49	26° $\Theta$ 55'20	
morning rise	-2033 May 30 j 22:41	5° $\text{R}$ 17'56			-2027 Sep 18 j 21:30	0° $\Omega$	
retrograde	-2033 Sep 13 j 04:14	13° $\text{R}$ 40'18		retrograde	-2027 Nov 30 j 08:56	4° $\Omega$ 13'27	
opposition	-2033 Nov 18 j 14:22	10° $\text{R}$ 11'01	-1°-48'-29	opposition	-2026 Feb 06 j 00:54	0° $\Omega$ 53'27	1°58'29
min. Earth dist.	-2033 Nov 18 j 04:42	10° $\text{R}$ 13'02	7.96278 AU	min. Earth dist.	-2026 Feb 05 j 21:07	0° $\Omega$ 54'11	8.66322 AU
direct	-2032 Jan 24 j 07:01	6° $\text{R}$ 41'18			-2026 Feb 17 j 15:43	30° $\text{R}$ $\Theta$	
	-2032 May 08 j 17:11	15° $\text{R}$		direct	-2026 Apr 17 j 07:46	27° $\Theta$ 27'35	
evening set	-2032 May 09 j 00:44	15° $\text{R}$ 02'25			-2026 Jun 13 j 09:54	0° $\Omega$	
				evening set	-2026 Jul 31 j 22:35	5° $\Omega$ 03'35	
conjunction	-2032 May 27 j 05:42	17° $\text{R}$ 24'20	-1°-12'-7				
minimum elong	-2032 May 27 j 05:46	17° $\text{R}$ 24'21	1°12'05	conjunction	-2026 Aug 18 j 05:08	7° $\Omega$ 08'15	1°47'11
max. Earth dist.	-2032 May 27 j 18:46	17° $\text{R}$ 28'36	9.99691 AU	minimum elong	-2026 Aug 18 j 05:05	7° $\Omega$ 08'14	1°47'12
morning rise	-2032 Jun 14 j 09:40	19° $\text{R}$ 45'50		max. Earth dist.	-2026 Aug 18 j 08:18	7° $\Omega$ 09'13	10.72858 AU
retrograde	-2032 Sep 26 j 11:39	27° $\text{R}$ 58'29		morning rise	-2026 Sep 04 j 06:44	9° $\Omega$ 11'25	
opposition	-2032 Dec 01 j 20:51	24° $\text{R}$ 30'31	-1°-10'-45		-2026 Nov 02 j 17:27	15° $\Omega$	
min. Earth dist.	-2032 Dec 01 j 11:05	24° $\text{R}$ 32'33	8.03882 AU	retrograde	-2026 Dec 12 j 10:35	16° $\Omega$ 21'12	
direct	-2031 Feb 07 j 02:29	21° $\text{R}$ 00'45			-2025 Jan 22 j 04:56	15° $\text{R}$ $\Omega$	
evening set	-2031 May 24 j 05:27	29° $\text{R}$ 17'21		opposition	-2025 Feb 18 j 14:54	13° $\Omega$ 02'24	2°22'44
	-2031 May 29 j 19:20	0° $\text{II}$		min. Earth dist.	-2025 Feb 18 j 12:43	13° $\Omega$ 02'49	8.79217 AU
				direct	-2025 Apr 30 j 10:43	9° $\Omega$ 37'43	
conjunction	-2031 Jun 11 j 09:46	1° $\text{II}$ 37'33	0°-40'-16		-2025 Jul 26 j 01:47	15° $\Omega$	
minimum elong	-2031 Jun 11 j 09:48	1° $\text{II}$ 37'34	0°40'14	evening set	-2025 Aug 13 j 11:30	17° $\Omega$ 05'06	
max. Earth dist.	-2031 Jun 11 j 22:07	1° $\text{II}$ 41'33	10.08683 AU				
morning rise	-2031 Jun 29 j 11:43	3° $\text{II}$ 56'55		conjunction	-2025 Aug 30 j 12:53	19° $\Omega$ 06'47	2°04'26
retrograde	-2031 Oct 10 j 10:22	11° $\text{II}$ 58'23		minimum elong	-2025 Aug 30 j 12:50	19° $\Omega$ 06'46	2°04'28
opposition	-2031 Dec 15 j 21:08	8° $\text{II}$ 31'59	0°-29'-35	max. Earth dist.	-2025 Aug 30 j 13:45	19° $\Omega$ 07'02	10.85125 AU
min. Earth dist.	-2031 Dec 15 j 11:40	8° $\text{II}$ 33'55	8.13968 AU	morning rise	-2025 Sep 16 j 09:34	21° $\Omega$ 07'03	
direct	-2030 Feb 21 j 17:40	5° $\text{II}$ 02'30		retrograde	-2025 Dec 24 j 08:10	28° $\Omega$ 09'57	
evening set	-2030 Jun 08 j 01:48	13° $\text{II}$ 12'45		opposition	-2024 Mar 01 j 23:04	24° $\Omega$ 52'06	2°40'12
				min. Earth dist.	-2024 Mar 01 j 22:10	24° $\Omega$ 52'16	8.90837 AU
conjunction	-2030 Jun 26 j 03:52	15° $\text{II}$ 30'29	0°-6'-43	direct	-2024 May 12 j 04:00	21° $\Omega$ 28'38	
minimum elong	-2030 Jun 26 j 03:51	15° $\text{II}$ 30'29	0°06'42	evening set	-2024 Aug 24 j 14:33	28° $\Omega$ 48'04	
behind sun begin	-2030 Jun 25 j 21:02	15° $\text{II}$ 28'20			-2024 Sep 03 j 20:04	0° $\text{np}$	
behind sun end	-2030 Jun 26 j 10:40	15° $\text{II}$ 32'38					
max. Earth dist.	-2030 Jun 26 j 15:11	15° $\text{II}$ 34'05	10.19798 AU	conjunction	-2024 Sep 10 j 11:24	0° $\text{np}$ 47'11	2°16'05
morning rise	-2030 Jul 14 j 02:20	17° $\text{II}$ 47'03		minimum elong	-2024 Sep 10 j 11:22	0° $\text{np}$ 47'11	2°16'07
asc. node	-2030 Sep 09 j 11:17	23° $\text{II}$ 50'38		max. Earth dist.	-2024 Sep 10 j 10:55	0° $\text{np}$ 47'03	10.95883 AU
retrograde	-2030 Oct 23 j 23:38	25° $\text{II}$ 36'56		morning rise	-2024 Sep 27 j 03:47	2° $\text{np}$ 45'03	
opposition	-2030 Dec 29 j 14:45	22° $\text{II}$ 12'13	0°12'10	retrograde	-2023 Jan 04 j 00:40	9° $\text{np}$ 42'35	
min. Earth dist.	-2030 Dec 29 j 05:46	22° $\text{II}$ 14'02	8.25880 AU	opposition	-2023 Mar 14 j 02:47	6° $\text{np}$ 25'28	2°50'43
direct	-2029 Mar 08 j 03:20	18° $\text{II}$ 43'22		min. Earth dist.	-2023 Mar 14 j 03:55	6° $\text{np}$ 25'15	9.00727 AU
evening set	-2029 Jun 22 j 11:56	26° $\text{II}$ 45'53		direct	-2023 May 24 j 13:13	3° $\text{np}$ 03'10	
				evening set	-2023 Sep 05 j 08:58	10° $\text{np}$ 15'32	
conjunction	-2029 Jul 10 j 10:19	29° $\text{II}$ 00'37	0°26'30				
minimum elong	-2029 Jul 10 j 10:18	29° $\text{II}$ 00'37	0°26'32	conjunction	-2023 Sep 22 j 01:55	12° $\text{np}$ 12'35	2°22'03
max. Earth dist.	-2029 Jul 10 j 20:34	29° $\text{II}$ 03'51	10.32410 AU	minimum elong	-2023 Sep 22 j 01:54	12° $\text{np}$ 12'34	2°22'04
	-2029 Jul 18 j 06:48	0° $\Theta$		max. Earth dist.	-2023 Sep 21 j 23:19	12° $\text{np}$ 11'49	11.04733 AU
morning rise	-2029 Jul 28 j 04:11	1° $\Theta$ 13'57		morning rise	-2023 Oct 08 j 15:00	14° $\text{np}$ 08'33	
retrograde	-2029 Nov 06 j 03:22	8° $\Theta$ 52'28		retrograde	-2022 Jan 15 j 14:04	21° $\text{np}$ 02'21	
opposition	-2028 Jan 12 j 01:13	5° $\Theta$ 29'26	0°52'01	opposition	-2022 Mar 26 j 02:57	17° $\text{np}$ 45'42	2°54'21
min. Earth dist.	-2028 Jan 11 j 17:19	5° $\Theta$ 31'00	8.39010 AU	min. Earth dist.	-2022 Mar 26 j 06:28	17° $\text{np}$ 45'03	9.08541 AU
direct	-2028 Mar 21 j 05:08	2° $\Theta$ 01'25		direct	-2022 Jun 05 j 16:58	14° $\text{np}$ 24'30	
evening set	-2028 Jul 05 j 11:09	9° $\Theta$ 55'23		evening set	-2022 Sep 16 j 20:31	21° $\text{np}$ 30'54	
conjunction	-2028 Jul 23 j 04:46	12° $\Theta$ 06'47	0°57'24	conjunction	-2022 Oct 03 j 10:24	23° $\text{np}$ 26'24	2°22'24
minimum elong	-2028 Jul 23 j 04:44	12° $\Theta$ 06'46	0°57'25	minimum elong	-2022 Oct 03 j 10:24	23° $\text{np}$ 26'25	2°22'24

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 32

Attention, astronomical year style is used: The year -2022 in astronomical counting style is the year 2023 BCE in historical counting style.

max. Earth dist.	-2022 Oct 03 j 05:01	23° $\overline{\text{M}}$ 24'50	11.11386 AU	conjunction	-2016 Dec 07 j 07:49	0° $\overline{\text{Z}}$ 10'54	0°44'34
morning rise	-2022 Oct 19 j 21:23	25° $\overline{\text{M}}$ 21'05		minimum elong	-2016 Dec 07 j 07:50	0° $\overline{\text{Z}}$ 10'54	0°44'31
	-2022 Dec 05 j 05:59	0° $\underline{\text{A}}$		max. Earth dist.	-2016 Dec 06 j 21:36	0° $\overline{\text{Z}}$ 07'52	10.98404 AU
retrograde	-2021 Jan 27 j 00:14	2° $\underline{\text{A}}$ 12'43		morning rise	-2016 Dec 24 j 00:13	2° $\overline{\text{Z}}$ 09'07	
	-2021 Mar 23 j 07:34	30° $\overline{\text{R}}$ $\overline{\text{M}}$		retrograde	-2015 Apr 05 j 20:54	9° $\overline{\text{Z}}$ 21'41	
opposition	-2021 Apr 07 j 00:21	28° $\overline{\text{M}}$ 56'16	2°51'19	opposition	-2015 Jun 15 j 21:19	6° $\overline{\text{Z}}$ 01'18	0°37'22
min. Earth dist.	-2021 Apr 07 j 05:42	28° $\overline{\text{M}}$ 55'17	9.14019 AU	min. Earth dist.	-2015 Jun 16 j 05:53	5° $\overline{\text{Z}}$ 59'42	8.93427 AU
direct	-2021 Jun 17 j 15:15	25° $\overline{\text{M}}$ 36'03		direct	-2015 Aug 24 j 17:01	2° $\overline{\text{Z}}$ 43'08	
	-2021 Sep 03 j 20:23	0° $\underline{\text{A}}$		evening set	-2015 Dec 02 j 06:17	9° $\overline{\text{Z}}$ 46'24	
evening set	-2021 Sep 28 j 02:38	2° $\underline{\text{A}}$ 37'43					
conjunction	-2021 Oct 14 j 14:34	4° $\underline{\text{A}}$ 32'15	2°17'22	conjunction	-2015 Dec 18 j 22:53	11° $\overline{\text{Z}}$ 45'51	0°16'26
minimum elong	-2021 Oct 14 j 14:36	4° $\underline{\text{A}}$ 32'16	2°17'21	minimum elong	-2015 Dec 18 j 22:54	11° $\overline{\text{Z}}$ 45'51	0°16'22
max. Earth dist.	-2021 Oct 14 j 07:30	4° $\underline{\text{A}}$ 30'12	11.15622 AU	max. Earth dist.	-2015 Dec 18 j 12:29	11° $\overline{\text{Z}}$ 42'44	10.88071 AU
morning rise	-2021 Oct 31 j 00:23	6° $\underline{\text{A}}$ 26'13		morning rise	-2014 Jan 04 j 18:25	13° $\overline{\text{Z}}$ 46'16	
retrograde	-2020 Feb 07 j 12:01	13° $\underline{\text{A}}$ 17'20		retrograde	-2014 Apr 18 j 13:01	21° $\overline{\text{Z}}$ 07'38	
opposition	-2020 Apr 17 j 20:22	10° $\underline{\text{A}}$ 00'50	2°41'57	opposition	-2014 Jun 28 j 09:22	17° $\overline{\text{Z}}$ 45'51	0°01'53
min. Earth dist.	-2020 Apr 18 j 02:29	9° $\underline{\text{A}}$ 59'42	9.16966 AU	min. Earth dist.	-2014 Jun 28 j 17:49	17° $\overline{\text{Z}}$ 44'16	8.82197 AU
direct	-2020 Jun 28 j 10:53	6° $\underline{\text{A}}$ 41'29		desc. node	-2014 Jul 17 j 21:48	16° $\overline{\text{Z}}$ 20'41	
evening set	-2020 Oct 08 j 05:09	13° $\underline{\text{A}}$ 39'41		direct	-2014 Sep 05 j 14:06	14° $\overline{\text{Z}}$ 27'10	
				evening set	-2014 Dec 14 j 02:56	21° $\overline{\text{Z}}$ 36'13	
conjunction	-2020 Oct 24 j 16:08	15° $\underline{\text{A}}$ 33'50	2°07'14	conjunction	-2014 Dec 30 j 22:01	23° $\overline{\text{Z}}$ 37'54	0°-13'-4
minimum elong	-2020 Oct 24 j 16:10	15° $\underline{\text{A}}$ 33'51	2°07'13	minimum elong	-2014 Dec 30 j 22:01	23° $\overline{\text{Z}}$ 37'54	0°13'08
max. Earth dist.	-2020 Oct 24 j 08:26	15° $\underline{\text{A}}$ 31'36	11.17285 AU	behind sun begin	-2014 Dec 30 j 17:45	23° $\overline{\text{Z}}$ 36'37	
morning rise	-2020 Nov 10 j 01:35	17° $\underline{\text{A}}$ 27'37		behind sun end	-2014 Dec 31 j 02:17	23° $\overline{\text{Z}}$ 39'10	
retrograde	-2019 Feb 18 j 01:14	24° $\underline{\text{A}}$ 19'49		max. Earth dist.	-2014 Dec 30 j 11:33	23° $\overline{\text{Z}}$ 34'44	10.76103 AU
opposition	-2019 Apr 29 j 16:19	21° $\underline{\text{A}}$ 03'02	2°26'39	morning rise	-2013 Jan 16 j 20:59	25° $\overline{\text{Z}}$ 40'47	
min. Earth dist.	-2019 Apr 29 j 23:22	21° $\underline{\text{A}}$ 01'45	9.17285 AU		-2013 Feb 25 j 22:17	0° $\overline{\text{Z}}$	
direct	-2019 Jul 10 j 01:33	17° $\underline{\text{A}}$ 44'25		retrograde	-2013 May 01 j 11:23	3° $\overline{\text{Z}}$ 12'10	
evening set	-2019 Oct 19 j 06:07	24° $\underline{\text{A}}$ 40'33			-2013 Jul 08 j 16:50	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
conjunction	-2019 Nov 04 j 16:52	26° $\underline{\text{A}}$ 34'49	1°52'23	opposition	-2013 Jul 11 j 03:24	29° $\overline{\text{Z}}$ 48'52	0°-34'-40
minimum elong	-2019 Nov 04 j 16:55	26° $\underline{\text{A}}$ 34'50	1°52'23	min. Earth dist.	-2013 Jul 11 j 11:35	29° $\overline{\text{Z}}$ 47'18	8.69563 AU
max. Earth dist.	-2019 Nov 04 j 07:49	26° $\underline{\text{A}}$ 32'11	11.16325 AU	direct	-2013 Sep 17 j 18:50	26° $\overline{\text{Z}}$ 29'21	
morning rise	-2019 Nov 21 j 03:01	28° $\underline{\text{A}}$ 29'00			-2013 Nov 22 j 12:20	0° $\overline{\text{Z}}$	
	-2019 Dec 04 j 17:47	0° $\overline{\text{M}}$		evening set	-2013 Dec 26 j 08:44	3° $\overline{\text{Z}}$ 45'44	
retrograde	-2018 Mar 01 j 16:10	5° $\overline{\text{M}}$ 23'54		conjunction	-2012 Jan 12 j 06:45	5° $\overline{\text{Z}}$ 49'57	0°-42'-38
opposition	-2018 May 11 j 13:17	2° $\overline{\text{M}}$ 06'35	2°05'55	minimum elong	-2012 Jan 12 j 06:43	5° $\overline{\text{Z}}$ 49'57	0°42'41
min. Earth dist.	-2018 May 11 j 21:56	2° $\overline{\text{M}}$ 05'00	9.14978 AU	max. Earth dist.	-2012 Jan 11 j 21:27	5° $\overline{\text{Z}}$ 47'06	10.62937 AU
	-2018 Jun 11 j 20:35	30° $\overline{\text{R}}$ $\underline{\text{A}}$		morning rise	-2012 Jan 29 j 09:11	7° $\overline{\text{Z}}$ 55'33	
direct	-2018 Jul 21 j 15:26	28° $\underline{\text{A}}$ 48'25		retrograde	-2012 May 13 j 20:49	15° $\overline{\text{Z}}$ 37'55	
	-2018 Aug 29 j 10:43	0° $\overline{\text{M}}$		opposition	-2012 Jul 23 j 04:24	12° $\overline{\text{Z}}$ 13'00	-1°-10'-46
evening set	-2018 Oct 30 j 07:11	5° $\overline{\text{M}}$ 44'01		min. Earth dist.	-2012 Jul 23 j 11:30	12° $\overline{\text{Z}}$ 11'38	8.55996 AU
conjunction	-2018 Nov 15 j 18:27	7° $\overline{\text{M}}$ 38'54	1°33'17	direct	-2012 Sep 29 j 06:23	8° $\overline{\text{Z}}$ 52'28	
minimum elong	-2018 Nov 15 j 18:29	7° $\overline{\text{M}}$ 38'55	1°33'16	evening set	-2011 Jan 07 j 01:07	16° $\overline{\text{Z}}$ 17'30	
max. Earth dist.	-2018 Nov 15 j 07:39	7° $\overline{\text{M}}$ 35'45	11.12776 AU	conjunction	-2011 Jan 24 j 02:24	18° $\overline{\text{Z}}$ 24'29	-1°-10'-59
morning rise	-2018 Dec 02 j 06:13	9° $\overline{\text{M}}$ 33'59		minimum elong	-2011 Jan 24 j 02:22	18° $\overline{\text{Z}}$ 24'28	1°11'02
	-2017 Jan 28 j 00:33	15° $\overline{\text{M}}$		max. Earth dist.	-2011 Jan 23 j 19:12	18° $\overline{\text{Z}}$ 22'14	10.49066 AU
retrograde	-2017 Mar 13 j 11:45	16° $\overline{\text{M}}$ 33'12		morning rise	-2011 Feb 10 j 08:21	20° $\overline{\text{Z}}$ 33'00	
	-2017 Apr 28 j 08:50	15° $\overline{\text{R}}$ $\overline{\text{M}}$		retrograde	-2011 May 27 j 16:06	28° $\overline{\text{Z}}$ 26'54	
opposition	-2017 May 23 j 12:21	13° $\overline{\text{M}}$ 15'05	1°40'19	opposition	-2011 Aug 05 j 12:38	25° $\overline{\text{Z}}$ 00'23	-1°-44'-36
min. Earth dist.	-2017 May 23 j 21:57	13° $\overline{\text{M}}$ 13'19	9.10112 AU	min. Earth dist.	-2011 Aug 05 j 17:45	24° $\overline{\text{Z}}$ 59'23	8.42028 AU
direct	-2017 Aug 02 j 06:13	9° $\overline{\text{M}}$ 57'10		direct	-2011 Oct 12 j 00:24	21° $\overline{\text{Z}}$ 38'39	
	-2017 Oct 24 j 10:20	15° $\overline{\text{M}}$		evening set	-2010 Jan 20 j 05:40	29° $\overline{\text{Z}}$ 13'35	
evening set	-2017 Nov 10 j 10:18	16° $\overline{\text{M}}$ 53'44			-2010 Jan 26 j 10:16	0° $\approx$	
conjunction	-2017 Nov 26 j 22:51	18° $\overline{\text{M}}$ 49'44	1°10'27	conjunction	-2010 Feb 06 j 10:23	1° $\approx$ 23'29	-1°-36'-35
minimum elong	-2017 Nov 26 j 22:53	18° $\overline{\text{M}}$ 49'44	1°10'25	minimum elong	-2010 Feb 06 j 10:20	1° $\approx$ 23'28	1°36'37
max. Earth dist.	-2017 Nov 26 j 12:00	18° $\overline{\text{M}}$ 46'32	11.06736 AU	max. Earth dist.	-2010 Feb 06 j 04:53	1° $\approx$ 21'45	10.35097 AU
morning rise	-2017 Dec 13 j 12:43	20° $\overline{\text{M}}$ 46'10		morning rise	-2010 Feb 23 j 19:57	3° $\approx$ 35'00	
retrograde	-2016 Mar 24 j 11:48	27° $\overline{\text{M}}$ 51'18		retrograde	-2010 Jun 10 j 20:20	11° $\approx$ 40'23	
opposition	-2016 Jun 03 j 14:36	24° $\overline{\text{M}}$ 32'09	1°10'31	opposition	-2010 Aug 19 j 04:12	8° $\approx$ 12'23	-2°-14'-9
min. Earth dist.	-2016 Jun 03 j 23:56	24° $\overline{\text{M}}$ 30'25	9.02843 AU	min. Earth dist.	-2010 Aug 19 j 07:16	8° $\approx$ 11'47	8.28359 AU
direct	-2016 Aug 12 j 22:04	21° $\overline{\text{M}}$ 14'14		direct	-2010 Oct 25 j 03:11	4° $\approx$ 49'19	
evening set	-2016 Nov 20 j 17:23	28° $\overline{\text{M}}$ 13'22		evening set	-2009 Feb 02 j 22:50	12° $\approx$ 34'51	
	-2016 Dec 05 j 19:08	0° $\overline{\text{Z}}$					

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 33

Attention, astronomical year style is used: The year -2009 in astronomical counting style is the year 2010 BCE in historical counting style.

conjunction	-2009 Feb 20 j 07:08	14° <del>47</del> '43	-1°-57'-44	morning rise	-2003 Jun 07 j 16:15	13° <del>8</del> 20'14	
minimum elong	-2009 Feb 20 j 07:05	14° <del>47</del> '42	1°57'46		-2003 Jun 20 j 21:20	15° <del>8</del>	
max. Earth dist.	-2009 Feb 20 j 03:34	14° <del>46</del> '34	10.21828 AU	retrograde	-2003 Sep 20 j 06:32	21° <del>8</del> 37'37	
	-2009 Feb 21 j 21:23	15° <del>8</del>		opposition	-2003 Nov 25 j 16:26	18° <del>8</del> 08'28	-1°-29'-3
morning rise	-2009 Mar 09 j 20:26	17° <del>8</del> 02'12		min. Earth dist.	-2003 Nov 25 j 06:38	18° <del>8</del> 10'30	7.99140 AU
retrograde	-2009 Jun 25 j 08:52	25° <del>8</del> 18'06			-2002 Jan 11 j 20:08	15° <del>8</del>	
opposition	-2009 Sep 02 j 03:07	21° <del>48</del> '49	-2°-37'-13	direct	-2002 Jan 31 j 15:57	14° <del>8</del> 38'09	
min. Earth dist.	-2009 Sep 02 j 04:08	21° <del>48</del> '37	8.15822 AU		-2002 Feb 20 j 13:11	15° <del>8</del>	
direct	-2009 Nov 07 j 15:01	18° <del>8</del> 24'19		evening set	-2002 May 17 j 14:22	22° <del>8</del> 57'06	
evening set	-2008 Feb 17 j 04:13	26° <del>8</del> 20'22					
				conjunction	-2002 Jun 04 j 19:22	25° <del>8</del> 18'19	0°-55'-32
conjunction	-2008 Mar 05 j 16:22	28° <del>8</del> 36'05	-2°-12'-46	minimum elong	-2002 Jun 04 j 19:25	25° <del>8</del> 18'20	0°55'31
minimum elong	-2008 Mar 05 j 16:20	28° <del>8</del> 36'04	2°12'48	max. Earth dist.	-2002 Jun 05 j 08:37	25° <del>8</del> 22'37	10.03122 AU
max. Earth dist.	-2008 Mar 05 j 15:15	28° <del>8</del> 35'43	10.10109 AU	morning rise	-2002 Jun 22 j 22:22	27° <del>8</del> 38'51	
	-2008 Mar 16 j 11:04	0° <del>8</del>			-2002 Jul 12 j 00:46	0° <del>8</del>	
morning rise	-2008 Mar 23 j 09:24	0° <del>8</del> 53'22		retrograde	-2002 Oct 04 j 10:13	5° <del>8</del> 45'55	
retrograde	-2008 Jul 09 j 03:55	9° <del>8</del> 17'53		opposition	-2002 Dec 09 j 19:37	2° <del>8</del> 18'10	0°-49'-8
opposition	-2008 Sep 15 j 08:18	5° <del>8</del> 47'35	-2°-51'-45	min. Earth dist.	-2002 Dec 09 j 10:01	2° <del>8</del> 20'09	8.07789 AU
min. Earth dist.	-2008 Sep 15 j 07:25	5° <del>8</del> 47'46	8.05228 AU		-2001 Jan 09 j 09:02	30° <del>8</del>	
direct	-2008 Nov 20 j 12:15	2° <del>8</del> 21'37		direct	-2001 Feb 15 j 08:43	28° <del>8</del> 47'57	
evening set	-2007 Mar 02 j 21:07	10° <del>8</del> 27'22			-2001 Mar 24 j 06:16	0° <del>8</del>	
				evening set	-2001 Jun 01 j 14:40	7° <del>8</del> 01'33	
conjunction	-2007 Mar 20 j 13:22	12° <del>8</del> 45'40	-2°-20'-14				
minimum elong	-2007 Mar 20 j 13:22	12° <del>8</del> 45'40	2°20'16	conjunction	-2001 Jun 19 j 18:04	9° <del>8</del> 20'38	0°-22'-30
max. Earth dist.	-2007 Mar 20 j 15:16	12° <del>8</del> 46'18	10.00711 AU	minimum elong	-2001 Jun 19 j 18:06	9° <del>8</del> 20'39	0°22'29
morning rise	-2007 Apr 07 j 10:00	15° <del>8</del> 05'23		max. Earth dist.	-2001 Jun 20 j 06:34	9° <del>8</del> 24'39	10.13109 AU
retrograde	-2007 Jul 24 j 02:41	23° <del>8</del> 35'37		morning rise	-2001 Jul 07 j 18:21	11° <del>8</del> 38'43	
opposition	-2007 Sep 29 j 18:07	20° <del>8</del> 04'40	-2°-56'-6	retrograde	-2001 Oct 18 j 03:38	19° <del>8</del> 34'20	
min. Earth dist.	-2007 Sep 29 j 15:14	20° <del>8</del> 05'16	7.97273 AU	opposition	-2001 Dec 23 j 16:18	16° <del>8</del> 08'13	0°-7'-18
direct	-2007 Dec 04 j 18:22	16° <del>8</del> 37'20		min. Earth dist.	-2001 Dec 23 j 07:26	16° <del>8</del> 10'02	8.18855 AU
evening set	-2006 Mar 17 j 23:23	24° <del>8</del> 51'08		asc. node	-2000 Feb 28 j 00:55	12° <del>8</del> 38'38	
				direct	-2000 Feb 29 j 21:22	12° <del>8</del> 38'27	
conjunction	-2006 Apr 04 j 19:45	27° <del>8</del> 11'35	-2°-19'-9	evening set	-2000 Jun 15 j 05:43	20° <del>8</del> 44'56	
minimum elong	-2006 Apr 04 j 19:47	27° <del>8</del> 11'36	2°19'10				
max. Earth dist.	-2006 Apr 05 j 01:00	27° <del>8</del> 13'19	9.94267 AU	conjunction	-2000 Jul 03 j 06:00	23° <del>8</del> 01'14	0°11'09
morning rise	-2006 Apr 22 j 19:36	29° <del>8</del> 33'10		minimum elong	-2000 Jul 03 j 05:59	23° <del>8</del> 01'14	0°11'11
	-2006 Apr 26 j 07:00	0° <del>8</del>		behind sun begin	-2000 Jul 03 j 00:38	22° <del>8</del> 59'33	
retrograde	-2006 Aug 08 j 02:31	8° <del>8</del> 05'36		behind sun end	-2000 Jul 03 j 11:19	23° <del>8</del> 02'54	
opposition	-2006 Oct 14 j 06:50	4° <del>8</del> 34'26	-2°-49'-21	max. Earth dist.	-2000 Jul 03 j 16:54	23° <del>8</del> 04'41	10.25151 AU
min. Earth dist.	-2006 Oct 14 j 01:39	4° <del>8</del> 35'31	7.92489 AU	morning rise	-2000 Jul 21 j 02:17	25° <del>8</del> 16'15	
direct	-2006 Dec 19 j 07:55	1° <del>8</del> 05'56			-2000 Sep 01 j 08:48	0° <del>8</del>	
evening set	-2005 Apr 02 j 07:57	9° <del>8</del> 25'21		retrograde	-2000 Oct 30 j 10:34	3° <del>8</del> 00'12	
					-2000 Dec 31 j 05:39	30° <del>8</del>	
conjunction	-2005 Apr 20 j 08:06	11° <del>8</del> 47'19	-2°-9'-14	opposition	-1999 Jan 05 j 05:58	29° <del>8</del> 35'51	0°33'43
minimum elong	-2005 Apr 20 j 08:09	11° <del>8</del> 47'20	2°09'14	min. Earth dist.	-1999 Jan 04 j 21:56	29° <del>8</del> 37'28	8.31643 AU
max. Earth dist.	-2005 Apr 20 j 16:34	11° <del>8</del> 50'07	9.91217 AU	direct	-1999 Mar 15 j 03:12	26° <del>8</del> 06'51	
morning rise	-2005 May 08 j 10:29	14° <del>8</del> 10'01			-1999 May 24 j 08:25	0° <del>8</del>	
retrograde	-2005 Aug 23 j 00:21	22° <del>8</del> 40'51		evening set	-1999 Jun 29 j 10:01	4° <del>8</del> 05'03	
opposition	-2005 Oct 28 j 20:16	19° <del>8</del> 09'56	-2°-31'-37				
min. Earth dist.	-2005 Oct 28 j 12:52	19° <del>8</del> 11'29	7.91197 AU	conjunction	-1999 Jul 17 j 05:54	6° <del>8</del> 18'06	0°43'16
direct	-2004 Jan 03 j 01:32	15° <del>8</del> 40'32		minimum elong	-1999 Jul 17 j 05:52	6° <del>8</del> 18'06	0°43'18
evening set	-2004 Apr 16 j 19:45	24° <del>8</del> 02'41		max. Earth dist.	-1999 Jul 17 j 14:59	6° <del>8</del> 20'57	10.38522 AU
				morning rise	-1999 Aug 03 j 21:12	8° <del>8</del> 29'41	
conjunction	-2004 May 04 j 22:54	26° <del>8</del> 25'22	-1°-51'00	retrograde	-1999 Nov 12 j 09:21	16° <del>8</del> 02'29	
minimum elong	-2004 May 04 j 22:58	26° <del>8</del> 25'23	1°51'00	opposition	-1998 Jan 18 j 12:19	12° <del>8</del> 39'52	1°11'41
max. Earth dist.	-2004 May 05 j 09:58	26° <del>8</del> 29'01	9.91765 AU	min. Earth dist.	-1998 Jan 18 j 04:53	12° <del>8</del> 41'21	8.45420 AU
morning rise	-2004 May 23 j 02:53	28° <del>8</del> 48'18		direct	-1998 Mar 29 j 00:38	9° <del>8</del> 11'58	
	-2004 Jun 01 j 11:51	0° <del>8</del>		evening set	-1998 Jul 13 j 02:45	17° <del>8</del> 01'15	
retrograde	-2004 Sep 05 j 18:23	7° <del>8</del> 13'55					
opposition	-2004 Nov 11 j 08:04	3° <del>8</del> 43'40	-2°-4'-8	conjunction	-1998 Jul 30 j 17:33	19° <del>8</del> 10'53	1°12'21
min. Earth dist.	-2004 Nov 10 j 23:02	3° <del>8</del> 45'34	7.93477 AU	minimum elong	-1998 Jul 30 j 17:30	19° <del>8</del> 10'52	1°12'23
direct	-2003 Jan 16 j 20:46	0° <del>8</del> 13'38		max. Earth dist.	-1998 Jul 31 j 01:09	19° <del>8</del> 13'14	10.52497 AU
evening set	-2003 May 02 j 07:05	8° <del>8</del> 35'36		morning rise	-1998 Aug 17 j 03:16	21° <del>8</del> 18'57	
				retrograde	-1998 Nov 24 j 23:38	28° <del>8</del> 41'32	
conjunction	-2003 May 20 j 12:00	10° <del>8</del> 58'02	-1°-25'-47	opposition	-1997 Jan 31 j 11:37	25° <del>8</del> 20'35	1°44'52
minimum elong	-2003 May 20 j 12:03	10° <del>8</del> 58'03	1°25'47	min. Earth dist.	-1997 Jan 31 j 05:19	25° <del>8</del> 21'49	8.59467 AU
max. Earth dist.	-2003 May 21 j 00:42	11° <del>8</del> 02'12	9.95840 AU	direct	-1997 Apr 11 j 13:28	21° <del>8</del> 53'58	

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Attention, astronomical year style is used: The year -1997 in astronomical counting style is the year 1998 BCE in historical counting style.

evening set	-1997 Jul 26 j 07:47	29° <del>3</del> 34'11		conjunction	-1991 Oct 19 j 23:52	10° <del>4</del> 45'09	2°12'24
	-1997 Jul 29 j 22:02	0° <del>0</del>		minimum elong	-1991 Oct 19 j 23:54	10° <del>4</del> 45'10	2°12'23
				max. Earth dist.	-1991 Oct 19 j 15:22	10° <del>4</del> 42'40	11.17694 AU
conjunction	-1997 Aug 12 j 17:11	1° <del>0</del> 40'26	1°37'11	morning rise	-1991 Nov 05 j 09:24	12° <del>4</del> 38'55	
minimum elong	-1997 Aug 12 j 17:08	1° <del>0</del> 40'25	1°37'13	retrograde	-1990 Feb 13 j 03:33	19° <del>4</del> 30'28	
max. Earth dist.	-1997 Aug 12 j 23:21	1° <del>0</del> 42'19	10.66374 AU	opposition	-1990 Apr 24 j 15:22	16° <del>4</del> 14'20	2°34'15
morning rise	-1997 Aug 29 j 21:16	3° <del>0</del> 45'07		min. Earth dist.	-1990 Apr 24 j 23:32	16° <del>4</del> 12'51	9.18209 AU
retrograde	-1997 Dec 07 j 06:30	10° <del>0</del> 58'44		direct	-1990 Jul 05 j 01:55	12° <del>4</del> 55'49	
opposition	-1996 Feb 13 j 04:25	7° <del>0</del> 39'18	2°12'08	evening set	-1990 Oct 14 j 14:36	19° <del>4</del> 52'53	
min. Earth dist.	-1996 Feb 13 j 00:11	7° <del>0</del> 40'07	8.73100 AU				
direct	-1996 Apr 23 j 18:20	4° <del>0</del> 14'03		conjunction	-1990 Oct 31 j 01:18	21° <del>4</del> 47'02	1°59'40
evening set	-1996 Aug 07 j 01:54	11° <del>0</del> 45'30		minimum elong	-1990 Oct 31 j 01:20	21° <del>4</del> 47'02	1°59'39
				max. Earth dist.	-1990 Oct 30 j 15:11	21° <del>4</del> 44'05	11.17682 AU
conjunction	-1996 Aug 24 j 05:50	13° <del>0</del> 48'35	1°56'58	morning rise	-1990 Nov 16 j 11:08	23° <del>4</del> 40'58	
minimum elong	-1996 Aug 24 j 05:47	13° <del>0</del> 48'34	1°57'00		-1989 Jan 29 j 00:51	0° <del>0</del>	
max. Earth dist.	-1996 Aug 24 j 09:32	13° <del>0</del> 49'42	10.79508 AU	retrograde	-1989 Feb 24 j 17:33	0° <del>0</del> 34'34	
	-1996 Sep 03 j 03:37	15° <del>0</del>			-1989 Mar 23 j 21:41	30° <del>0</del> 30	
morning rise	-1996 Sep 10 j 04:40	15° <del>0</del> 50'10		opposition	-1989 May 06 j 11:53	27° <del>4</del> 17'53	2°15'57
retrograde	-1996 Dec 18 j 06:40	22° <del>0</del> 56'12		min. Earth dist.	-1989 May 06 j 20:54	27° <del>4</del> 16'14	9.16764 AU
opposition	-1995 Feb 24 j 15:22	19° <del>0</del> 38'05	2°32'47	direct	-1989 Jul 16 j 18:05	23° <del>4</del> 59'48	
min. Earth dist.	-1995 Feb 24 j 13:43	19° <del>0</del> 38'24	8.85714 AU		-1989 Oct 17 j 10:07	0° <del>0</del>	
direct	-1995 May 06 j 14:12	16° <del>0</del> 14'14		evening set	-1989 Oct 25 j 15:51	0° <del>0</del> 55'44	
evening set	-1995 Aug 19 j 09:46	23° <del>0</del> 37'27					
				conjunction	-1989 Nov 11 j 02:55	2° <del>0</del> 50'19	1°42'27
conjunction	-1995 Sep 05 j 08:35	25° <del>0</del> 37'44	2°11'15	minimum elong	-1989 Nov 11 j 02:58	2° <del>0</del> 50'20	1°42'26
minimum elong	-1995 Sep 05 j 08:33	25° <del>0</del> 37'43	2°11'17	max. Earth dist.	-1989 Nov 10 j 16:22	2° <del>0</del> 47'14	11.14909 AU
max. Earth dist.	-1995 Sep 05 j 09:07	25° <del>0</del> 37'53	10.91358 AU	morning rise	-1989 Nov 27 j 13:46	4° <del>0</del> 44'56	
morning rise	-1995 Sep 22 j 02:57	27° <del>0</del> 36'41		retrograde	-1988 Mar 07 j 12:41	11° <del>0</del> 42'11	
	-1995 Oct 13 j 12:28	0° <del>0</del>		opposition	-1988 May 17 j 10:15	8° <del>0</del> 24'40	1°52'31
retrograde	-1995 Dec 30 j 00:02	4° <del>0</del> 36'39		min. Earth dist.	-1988 May 17 j 19:45	8° <del>0</del> 22'56	9.12607 AU
opposition	-1994 Mar 08 j 21:23	1° <del>0</del> 19'32	2°46'32	direct	-1988 Jul 27 j 08:49	5° <del>0</del> 06'49	
min. Earth dist.	-1994 Mar 08 j 21:35	1° <del>0</del> 19'30	8.96797 AU	evening set	-1988 Nov 04 j 18:13	12° <del>0</del> 03'01	
	-1994 Mar 27 j 01:18	30° <del>0</del> 30					
direct	-1994 May 19 j 04:13	27° <del>0</del> 57'03		conjunction	-1988 Nov 21 j 06:11	13° <del>0</del> 58'31	1°21'15
	-1994 Jul 09 j 19:59	0° <del>0</del>		minimum elong	-1988 Nov 21 j 06:13	13° <del>0</del> 58'32	1°21'14
evening set	-1994 Aug 31 j 08:18	5° <del>0</del> 12'47		max. Earth dist.	-1988 Nov 20 j 18:29	13° <del>0</del> 55'05	11.09517 AU
					-1988 Nov 29 j 23:41	15° <del>0</del>	
conjunction	-1994 Sep 17 j 02:53	7° <del>0</del> 10'43	2°19'51	morning rise	-1988 Dec 07 j 18:54	15° <del>0</del> 54'20	
minimum elong	-1994 Sep 17 j 02:52	7° <del>0</del> 10'42	2°19'52	retrograde	-1987 Mar 19 j 10:30	22° <del>0</del> 56'50	
max. Earth dist.	-1994 Sep 17 j 01:06	7° <del>0</del> 10'11	11.01461 AU	opposition	-1987 May 29 j 11:31	19° <del>0</del> 38'12	1°24'33
morning rise	-1994 Oct 03 j 17:35	9° <del>0</del> 07'31		min. Earth dist.	-1987 May 29 j 21:57	19° <del>0</del> 36'17	9.05926 AU
retrograde	-1993 Jan 10 j 15:55	16° <del>0</del> 03'00		direct	-1987 Aug 07 j 22:59	16° <del>0</del> 20'14	
opposition	-1993 Mar 20 j 23:14	12° <del>0</del> 46'35	2°53'20	evening set	-1987 Nov 15 j 23:40	23° <del>0</del> 18'21	
min. Earth dist.	-1993 Mar 21 j 00:50	12° <del>0</del> 46'18	9.05906 AU				
direct	-1993 May 31 j 12:20	9° <del>0</del> 25'22		conjunction	-1987 Dec 02 j 13:06	25° <del>0</del> 15'12	0°56'41
evening set	-1993 Sep 11 j 23:15	16° <del>0</del> 34'33		minimum elong	-1987 Dec 02 j 13:08	25° <del>0</del> 15'13	0°56'39
				max. Earth dist.	-1987 Dec 02 j 00:25	25° <del>0</del> 11'27	11.01721 AU
conjunction	-1993 Sep 28 j 14:34	18° <del>0</del> 30'42	2°22'47	morning rise	-1987 Dec 19 j 04:25	27° <del>0</del> 12'40	
minimum elong	-1993 Sep 28 j 14:34	18° <del>0</del> 30'42	2°22'47		-1986 Jan 13 j 13:22	0° <del>0</del> 30	
max. Earth dist.	-1993 Sep 28 j 11:15	18° <del>0</del> 29'44	11.09416 AU	retrograde	-1986 Mar 31 j 14:44	4° <del>0</del> 21'57	
morning rise	-1993 Oct 15 j 02:24	20° <del>0</del> 25'54		opposition	-1986 Jun 10 j 16:22	1° <del>0</del> 20'57	0°52'49
retrograde	-1992 Jan 22 j 04:25	27° <del>0</del> 18'24		min. Earth dist.	-1986 Jun 11 j 03:20	0° <del>0</del> 25'56	8.96977 AU
opposition	-1992 Mar 31 j 21:58	24° <del>0</del> 02'24	2°53'20		-1986 Jun 24 j 19:58	30° <del>0</del> 30	
min. Earth dist.	-1992 Apr 01 j 01:26	24° <del>0</del> 01'45	9.12680 AU	direct	-1986 Aug 19 j 17:35	27° <del>0</del> 43'37	
direct	-1992 Jun 11 j 12:02	20° <del>0</del> 42'17			-1986 Oct 11 j 23:08	0° <del>0</del> 30	
evening set	-1992 Sep 22 j 08:12	27° <del>0</del> 46'04		evening set	-1986 Nov 27 j 09:52	4° <del>0</del> 24'513	
conjunction	-1992 Oct 08 j 21:03	29° <del>0</del> 40'59	2°20'13	conjunction	-1986 Dec 14 j 01:27	6° <del>0</del> 24'53	0°29'28
minimum elong	-1992 Oct 08 j 21:04	29° <del>0</del> 40'59	2°20'12	minimum elong	-1986 Dec 14 j 01:28	6° <del>0</del> 24'53	0°29'25
max. Earth dist.	-1992 Oct 08 j 15:35	29° <del>0</del> 39'23	11.14905 AU	max. Earth dist.	-1986 Dec 13 j 13:17	6° <del>0</del> 24'015	10.91795 AU
	-1992 Oct 11 j 14:15	0° <del>0</del> 30		morning rise	-1986 Dec 30 j 19:40	8° <del>0</del> 24'323	
morning rise	-1992 Oct 25 j 07:08	1° <del>0</del> 23'510		retrograde	-1985 Apr 13 j 02:13	16° <del>0</del> 20'56	
retrograde	-1991 Feb 01 j 15:56	8° <del>0</del> 26'20		opposition	-1985 Jun 23 j 02:02	12° <del>0</del> 23'924	0°18'15
opposition	-1991 Apr 12 j 15:03	5° <del>0</del> 10'26	2°46'51	min. Earth dist.	-1985 Jun 23 j 12:11	12° <del>0</del> 23'730	8.86076 AU
min. Earth dist.	-1991 Apr 13 j 01:14	5° <del>0</del> 09'18	9.16840 AU	direct	-1985 Aug 31 j 14:46	9° <del>0</del> 20'29	
direct	-1991 Jun 23 j 08:41	1° <del>0</del> 25'112		evening set	-1985 Dec 09 j 02:46	16° <del>0</del> 27'13	
evening set	-1991 Oct 03 j 12:39	8° <del>0</del> 25'55					



## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodiens AG 7-Dez-2017 14:42, page 35

Attention, astronomical year style is used: The year -1985 in astronomical counting style is the year 1986 BCE in historical counting style.

conjunction	-1985 Dec 25 j 20:51	18° $\approx$ 28'01	0°00'28	opposition	-1979 Sep 09 j 08:11	29° $\approx$ 43'04	-2°-46'-27
minimum elong	-1985 Dec 25 j 20:52	18° $\approx$ 28'01	0°00'24	min. Earth dist.	-1979 Sep 09 j 07:07	29° $\approx$ 43'17	8.08413 AU
behind sun begin	-1985 Dec 25 j 13:52	18° $\approx$ 25'56		direct	-1979 Nov 14 j 15:49	26° $\approx$ 17'22	
behind sun end	-1985 Dec 26 j 03:52	18° $\approx$ 30'06			-1978 Jan 18 j 23:29	0° $\approx$	
max. Earth dist.	-1985 Dec 25 j 10:06	18° $\approx$ 24'47	10.80087 AU	evening set	-1978 Feb 24 j 14:55	4° $\approx$ 19'25	
desc. node	-1985 Dec 31 j 13:29	19° $\approx$ 09'22					
morning rise	-1984 Jan 11 j 18:10	20° $\approx$ 29'53		conjunction	-1978 Mar 14 j 05:28	6° $\approx$ 36'45	-2°-17'-53
retrograde	-1984 Apr 24 j 22:34	27° $\approx$ 57'07		minimum elong	-1978 Mar 14 j 05:27	6° $\approx$ 36'45	2°17'55
opposition	-1984 Jul 04 j 17:29	24° $\approx$ 33'56	0°-18'00	max. Earth dist.	-1978 Mar 14 j 08:19	6° $\approx$ 37'41	10.03500 AU
min. Earth dist.	-1984 Jul 05 j 02:03	24° $\approx$ 32'18	8.73630 AU	morning rise	-1978 Apr 01 j 00:21	8° $\approx$ 55'33	
direct	-1984 Sep 11 j 16:49	21° $\approx$ 14'13		retrograde	-1978 Jul 17 j 18:48	17° $\approx$ 24'10	
evening set	-1984 Dec 20 j 04:20	28° $\approx$ 27'40		opposition	-1978 Sep 23 j 16:15	13° $\approx$ 53'10	-2°-55'-31
	-1983 Jan 01 j 20:17	0° $\approx$		min. Earth dist.	-1978 Sep 23 j 12:29	13° $\approx$ 53'56	7.99587 AU
				direct	-1978 Nov 28 j 17:42	10° $\approx$ 26'16	
conjunction	-1983 Jan 06 j 01:09	0° $\approx$ 30'56	0°-29'-15	evening set	-1977 Mar 11 j 13:30	18° $\approx$ 37'08	
minimum elong	-1983 Jan 06 j 01:07	0° $\approx$ 30'55	0°29'19				
max. Earth dist.	-1983 Jan 05 j 15:15	0° $\approx$ 27'54	10.67058 AU	conjunction	-1977 Mar 29 j 08:04	20° $\approx$ 56'48	-2°-20'-43
morning rise	-1983 Jan 23 j 01:54	2° $\approx$ 35'28		minimum elong	-1977 Mar 29 j 08:05	20° $\approx$ 56'48	2°20'44
retrograde	-1983 May 08 j 05:03	10° $\approx$ 13'25		max. Earth dist.	-1977 Mar 29 j 13:53	20° $\approx$ 58'43	9.96062 AU
opposition	-1983 Jul 17 j 15:33	6° $\approx$ 48'34	0°-54'-34	morning rise	-1977 Apr 16 j 06:22	23° $\approx$ 17'43	
min. Earth dist.	-1983 Jul 17 j 22:48	6° $\approx$ 47'11	8.60143 AU		-1977 Jun 17 j 03:15	0° $\approx$	
direct	-1983 Sep 23 j 23:30	3° $\approx$ 27'52		retrograde	-1977 Aug 01 j 19:34	1° $\approx$ 50'08	
evening set	-1982 Jan 01 j 16:02	10° $\approx$ 49'32			-1977 Sep 17 j 00:18	30° $\approx$	
				opposition	-1977 Oct 08 j 04:21	28° $\approx$ 18'55	-2°-53'-44
conjunction	-1982 Jan 18 j 15:49	12° $\approx$ 55'29	0°-58'-23	min. Earth dist.	-1977 Oct 07 j 22:28	28° $\approx$ 20'09	7.93731 AU
minimum elong	-1982 Jan 18 j 15:47	12° $\approx$ 55'28	0°58'26	direct	-1977 Dec 13 j 03:29	24° $\approx$ 50'58	
max. Earth dist.	-1982 Jan 18 j 06:42	12° $\approx$ 52'39	10.53245 AU		-1976 Feb 29 j 09:37	0° $\approx$	
morning rise	-1982 Feb 04 j 20:17	15° $\approx$ 02'55		evening set	-1976 Mar 25 j 19:54	3° $\approx$ 08'32	
retrograde	-1982 May 21 j 19:22	22° $\approx$ 52'18					
opposition	-1982 Jul 30 j 20:50	19° $\approx$ 25'49	-1°-29'-44	conjunction	-1976 Apr 12 j 18:21	5° $\approx$ 30'00	-2°-14'-42
min. Earth dist.	-1982 Jul 31 j 02:58	19° $\approx$ 24'37	8.46191 AU	minimum elong	-1976 Apr 12 j 18:24	5° $\approx$ 30'01	2°14'42
direct	-1982 Oct 06 j 14:19	16° $\approx$ 03'57		max. Earth dist.	-1976 Apr 13 j 02:50	5° $\approx$ 32'48	9.91870 AU
evening set	-1981 Jan 14 j 15:13	23° $\approx$ 35'07		morning rise	-1976 Apr 30 j 19:40	7° $\approx$ 52'22	
				retrograde	-1976 Aug 15 j 19:49	16° $\approx$ 24'50	
conjunction	-1981 Jan 31 j 18:16	25° $\approx$ 43'54	-1°-25'-28	opposition	-1976 Oct 21 j 18:11	12° $\approx$ 53'53	-2°-40'-45
minimum elong	-1981 Jan 31 j 18:13	25° $\approx$ 43'53	1°25'31	min. Earth dist.	-1976 Oct 21 j 10:46	12° $\approx$ 55'26	7.91272 AU
max. Earth dist.	-1981 Jan 31 j 11:10	25° $\approx$ 41'40	10.39263 AU	direct	-1976 Dec 26 j 19:15	9° $\approx$ 25'04	
morning rise	-1981 Feb 18 j 02:23	27° $\approx$ 54'18		evening set	-1975 Apr 10 j 07:16	17° $\approx$ 46'39	
	-1981 Mar 07 j 13:42	0° $\approx$					
retrograde	-1981 Jun 04 j 18:34	5° $\approx$ 55'18		conjunction	-1975 Apr 28 j 09:03	20° $\approx$ 09'10	-2°00'-1
opposition	-1981 Aug 13 j 09:29	2° $\approx$ 27'18	-2°-1'-33	minimum elong	-1975 Apr 28 j 09:07	20° $\approx$ 09'11	2°00'01
min. Earth dist.	-1981 Aug 13 j 13:55	2° $\approx$ 26'25	8.32434 AU	max. Earth dist.	-1975 Apr 28 j 19:42	20° $\approx$ 12'41	9.91229 AU
	-1981 Sep 17 j 01:38	30° $\approx$		morning rise	-1975 May 16 j 12:32	22° $\approx$ 32'09	
direct	-1981 Oct 19 j 14:41	29° $\approx$ 04'11			-1975 Jul 28 j 12:04	0° $\approx$	
	-1981 Nov 20 j 13:22	0° $\approx$		retrograde	-1975 Aug 30 j 16:30	1° $\approx$ 00'47	
evening set	-1980 Jan 28 j 02:42	6° $\approx$ 45'37			-1975 Oct 03 j 00:37	30° $\approx$	
				opposition	-1975 Nov 05 j 07:25	27° $\approx$ 30'32	-2°-17'-21
conjunction	-1980 Feb 14 j 09:21	8° $\approx$ 57'22	-1°-48'-52	min. Earth dist.	-1975 Nov 04 j 22:49	27° $\approx$ 32'20	7.92393 AU
minimum elong	-1980 Feb 14 j 09:18	8° $\approx$ 57'21	1°48'54	direct	-1974 Jan 10 j 14:42	24° $\approx$ 01'08	
max. Earth dist.	-1980 Feb 14 j 05:23	8° $\approx$ 56'06	10.25814 AU		-1974 Apr 06 j 15:15	0° $\approx$	
morning rise	-1980 Mar 02 j 21:05	11° $\approx$ 10'45		evening set	-1974 Apr 25 j 19:44	2° $\approx$ 23'43	
	-1980 Apr 04 j 12:35	15° $\approx$					
retrograde	-1980 Jun 18 j 03:21	19° $\approx$ 22'47		conjunction	-1974 May 13 j 23:50	4° $\approx$ 46'21	-1°-37'-40
opposition	-1980 Aug 26 j 05:30	15° $\approx$ 53'27	-2°-27'-50	minimum elong	-1974 May 13 j 23:54	4° $\approx$ 46'22	1°37'39
min. Earth dist.	-1980 Aug 26 j 07:19	15° $\approx$ 53'05	8.19598 AU	max. Earth dist.	-1974 May 14 j 12:00	4° $\approx$ 50'21	9.94184 AU
	-1980 Sep 06 j 10:21	15° $\approx$		morning rise	-1974 Jun 01 j 04:15	7° $\approx$ 09'00	
direct	-1980 Oct 31 j 23:04	12° $\approx$ 29'02			-1974 Aug 22 j 01:14	15° $\approx$	
	-1980 Dec 24 j 03:53	15° $\approx$		retrograde	-1974 Sep 14 j 07:37	15° $\approx$ 30'27	
evening set	-1979 Feb 10 j 02:44	20° $\approx$ 20'59			-1974 Oct 07 j 15:05	15° $\approx$	
				opposition	-1974 Nov 19 j 18:00	12° $\approx$ 01'16	-1°-45'-17
conjunction	-1979 Feb 27 j 13:16	22° $\approx$ 35'38	-2°-6'-52	min. Earth dist.	-1974 Nov 19 j 08:25	12° $\approx$ 03'15	7.97008 AU
minimum elong	-1979 Feb 27 j 13:14	22° $\approx$ 35'37	2°06'54	direct	-1973 Jan 25 j 11:42	8° $\approx$ 31'33	
max. Earth dist.	-1979 Feb 27 j 12:47	22° $\approx$ 35'29	10.13646 AU		-1973 Apr 26 j 06:24	15° $\approx$	
morning rise	-1979 Mar 17 j 04:37	24° $\approx$ 51'52		evening set	-1973 May 11 j 05:23	16° $\approx$ 52'06	
	-1979 May 01 j 06:23	0° $\approx$					
retrograde	-1979 Jul 02 j 20:38	3° $\approx$ 13'26		conjunction	-1973 May 29 j 10:24	19° $\approx$ 13'53	-1°-9'-22
	-1979 Sep 05 j 20:55	30° $\approx$		minimum elong	-1973 May 29 j 10:27	19° $\approx$ 13'54	1°09'21

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 36

Attention, astronomical year style is used: The year -1973 in astronomical counting style is the year 1974 BCE in historical counting style.

max. Earth dist.	-1973 May 29 j 23:26	19°♄18'08	10.00491 AU	minimum elong	-1967 Aug 19 j 05:10	8°♄47'45	1°48'59
morning rise	-1973 Jun 16 j 14:17	21°♄35'13		max. Earth dist.	-1967 Aug 19 j 07:49	8°♄48'33	10.73338 AU
retrograde	-1973 Sep 28 j 14:25	29°♄46'57		morning rise	-1967 Sep 05 j 06:31	10°♄50'48	
opposition	-1973 Dec 03 j 23:52	26°♄19'06	-1°-7'-8		-1967 Oct 13 j 21:21	15°♄	
min. Earth dist.	-1973 Dec 03 j 13:34	26°♄21'13	8.04744 AU	retrograde	-1967 Dec 13 j 11:14	18°♄00'27	
direct	-1972 Feb 09 j 06:59	22°♄49'23			-1966 Feb 15 j 15:17	15°♄	
	-1972 May 16 j 16:15	0°♄		opposition	-1966 Feb 19 j 15:03	14°♄41'43	2°24'37
evening set	-1972 May 25 j 09:22	1°♄05'19		min. Earth dist.	-1966 Feb 19 j 12:44	14°♄42'10	8.79563 AU
				direct	-1966 May 01 j 10:48	11°♄17'08	
conjunction	-1972 Jun 12 j 13:40	3°♄25'19	0°-37'-17		-1966 Jul 10 j 22:55	15°♄	
minimum elong	-1972 Jun 12 j 13:42	3°♄25'20	0°37'16	evening set	-1966 Aug 14 j 11:34	18°♄44'22	
max. Earth dist.	-1972 Jun 13 j 02:42	3°♄29'32	10.09624 AU				
morning rise	-1972 Jun 30 j 15:24	5°♄44'28		conjunction	-1966 Aug 31 j 12:46	20°♄45'59	2°05'43
retrograde	-1972 Oct 11 j 12:02	13°♄44'59		minimum elong	-1966 Aug 31 j 12:44	20°♄45'58	2°05'45
opposition	-1972 Dec 16 j 23:28	10°♄18'40	0°-25'-49	max. Earth dist.	-1966 Aug 31 j 13:50	20°♄46'18	10.85326 AU
min. Earth dist.	-1972 Dec 16 j 13:27	10°♄20'43	8.14971 AU	morning rise	-1966 Sep 17 j 09:05	22°♄46'11	
direct	-1971 Feb 22 j 21:45	6°♄49'14		retrograde	-1966 Dec 25 j 08:21	29°♄49'09	
evening set	-1971 Jun 09 j 04:57	14°♄58'42		opposition	-1965 Mar 03 j 23:26	26°♄31'22	2°41'28
				min. Earth dist.	-1965 Mar 03 j 23:01	26°♄31'27	8.90899 AU
conjunction	-1971 Jun 27 j 06:54	17°♄16'12	0°-3'-43	direct	-1965 May 14 j 03:41	23°♄07'59	
minimum elong	-1971 Jun 27 j 06:53	17°♄16'11	0°03'43		-1965 Aug 22 j 15:20	0°♄	
behind sun begin	-1971 Jun 26 j 23:39	17°♄13'54		evening set	-1965 Aug 26 j 14:28	0°♄27'26	
behind sun end	-1971 Jun 27 j 14:08	17°♄18'29					
max. Earth dist.	-1971 Jun 27 j 18:53	17°♄20'00	10.20852 AU	conjunction	-1965 Sep 12 j 11:07	2°♄26'32	2°16'50
morning rise	-1971 Jul 15 j 05:00	19°♄32'29		minimum elong	-1965 Sep 12 j 11:05	2°♄26'31	2°16'52
asc. node	-1971 Aug 07 j 18:27	22°♄21'15		max. Earth dist.	-1965 Sep 12 j 10:12	2°♄26'15	10.95795 AU
retrograde	-1971 Oct 25 j 00:49	27°♄21'25		morning rise	-1965 Sep 29 j 03:18	4°♄24'23	
opposition	-1971 Dec 30 j 16:26	23°♄56'47	0°15'50	retrograde	-1964 Jan 06 j 01:36	11°♄22'11	
min. Earth dist.	-1971 Dec 30 j 07:38	23°♄58'33	8.26946 AU	opposition	-1964 Mar 15 j 03:24	8°♄05'06	2°51'20
direct	-1970 Mar 09 j 05:26	20°♄27'58		min. Earth dist.	-1964 Mar 15 j 05:34	8°♄04'42	9.00501 AU
evening set	-1970 Jun 23 j 14:18	28°♄29'42		direct	-1964 May 25 j 13:36	4°♄42'51	
	-1970 Jul 05 j 15:58	0°♄		evening set	-1964 Sep 06 j 09:03	11°♄55'25	
conjunction	-1970 Jul 11 j 12:22	0°♄44'11	0°29'22	conjunction	-1964 Sep 23 j 01:45	13°♄52'29	2°22'15
minimum elong	-1970 Jul 11 j 12:21	0°♄44'11	0°29'23	minimum elong	-1964 Sep 23 j 01:44	13°♄52'29	2°22'16
max. Earth dist.	-1970 Jul 11 j 22:36	0°♄47'24	10.33455 AU	max. Earth dist.	-1964 Sep 22 j 21:55	13°♄51'21	11.04358 AU
morning rise	-1970 Jul 29 j 05:49	2°♄57'14		morning rise	-1964 Oct 09 j 14:51	15°♄48'31	
retrograde	-1970 Nov 07 j 04:54	10°♄34'55		retrograde	-1963 Jan 16 j 13:33	22°♄42'43	
opposition	-1969 Jan 13 j 02:21	7°♄11'59	0°55'24	opposition	-1963 Mar 27 j 03:50	19°♄26'04	2°54'18
min. Earth dist.	-1969 Jan 12 j 19:23	7°♄13'23	8.40012 AU	min. Earth dist.	-1963 Mar 27 j 07:55	19°♄25'18	9.08027 AU
direct	-1969 Mar 23 j 06:02	3°♄44'02		direct	-1963 Jun 06 j 16:55	16°♄04'53	
evening set	-1969 Jul 07 j 12:40	11°♄37'19		evening set	-1963 Sep 17 j 20:41	23°♄11'36	
conjunction	-1969 Jul 25 j 05:51	13°♄48'30	0°59'59	conjunction	-1963 Oct 04 j 10:30	25°♄07'11	2°22'04
minimum elong	-1969 Jul 25 j 05:48	13°♄48'29	1°00'01	minimum elong	-1963 Oct 04 j 10:30	25°♄07'11	2°22'03
max. Earth dist.	-1969 Jul 25 j 13:34	13°♄50'53	10.46814 AU	max. Earth dist.	-1963 Oct 04 j 04:40	25°♄05'29	11.10733 AU
morning rise	-1969 Aug 11 j 18:01	15°♄58'07		morning rise	-1963 Oct 20 j 21:29	27°♄01'58	
retrograde	-1969 Nov 19 j 22:23	23°♄25'16			-1963 Nov 17 j 10:14	0°♄	
opposition	-1968 Jan 26 j 05:03	20°♄03'57	1°30'55	retrograde	-1962 Jan 28 j 01:53	3°♄54'12	
min. Earth dist.	-1968 Jan 26 j 00:07	20°♄04'55	8.53555 AU	opposition	-1962 Apr 08 j 01:45	0°♄37'41	2°50'36
direct	-1968 Apr 04 j 23:51	16°♄37'00		min. Earth dist.	-1962 Apr 08 j 06:44	0°♄36'46	9.13229 AU
evening set	-1968 Jul 19 j 23:35	24°♄21'31			-1962 Apr 16 j 15:45	30°♄	
				direct	-1962 Jun 18 j 17:25	27°♄17'29	
conjunction	-1968 Aug 06 j 11:19	26°♄29'17	1°26'50		-1962 Aug 17 j 17:00	0°♄	
minimum elong	-1968 Aug 06 j 11:16	26°♄29'16	1°26'52	evening set	-1962 Sep 29 j 02:59	4°♄19'31	
max. Earth dist.	-1968 Aug 06 j 15:59	26°♄30'43	10.60315 AU				
morning rise	-1968 Aug 23 j 18:01	28°♄35'31		conjunction	-1962 Oct 15 j 15:02	6°♄14'12	2°16'28
	-1968 Sep 04 j 17:27	0°♄		minimum elong	-1962 Oct 15 j 15:03	6°♄14'13	2°16'27
retrograde	-1968 Dec 01 j 07:31	5°♄53'15		max. Earth dist.	-1962 Oct 15 j 08:31	6°♄12'18	11.14704 AU
opposition	-1967 Feb 07 j 01:09	2°♄33'20	2°00'57	morning rise	-1962 Nov 01 j 00:48	8°♄08'18	
min. Earth dist.	-1967 Feb 06 j 21:35	2°♄34'02	8.66940 AU	retrograde	-1961 Feb 08 j 14:51	15°♄00'07	
	-1967 Mar 16 j 10:10	30°♄		opposition	-1961 Apr 19 j 22:21	11°♄43'31	2°40'34
direct	-1967 Apr 18 j 10:10	29°♄07'32		min. Earth dist.	-1961 Apr 20 j 04:23	11°♄42'24	9.15924 AU
	-1967 May 21 j 03:36	0°♄		direct	-1961 Jun 30 j 11:30	8°♄24'10	
evening set	-1967 Aug 01 j 22:58	6°♄43'15		evening set	-1961 Oct 10 j 06:02	15°♄22'50	
conjunction	-1967 Aug 19 j 05:13	8°♄47'46	1°48'57	conjunction	-1961 Oct 26 j 17:04	17°♄17'09	2°05'49

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodiens AG 7-Dez-2017 14:42, page 37

Attention, astronomical year style is used: The year -1961 in astronomical counting style is the year 1962 BCE in historical counting style.

minimum elong	-1961 Oct 26 j 17:07	17° $\frac{1}{2}$ 17'10	2°05'47	conjunction	-1954 Jan 01 j 03:44	25° $\frac{1}{2}$ 32'48	0°-16'-27
max. Earth dist.	-1961 Oct 26 j 09:05	17° $\frac{1}{2}$ 14'49	11.16134 AU	minimum elong	-1954 Jan 01 j 03:43	25° $\frac{1}{2}$ 32'48	0°16'30
morning rise	-1961 Nov 12 j 02:38	19° $\frac{1}{2}$ 11'08		max. Earth dist.	-1955 Dec 31 j 18:09	25° $\frac{1}{2}$ 29'54	10.74595 AU
retrograde	-1960 Feb 20 j 03:29	26° $\frac{1}{2}$ 04'07		morning rise	-1954 Jan 18 j 02:59	27° $\frac{1}{2}$ 35'58	
opposition	-1960 Apr 30 j 18:52	22° $\frac{1}{2}$ 47'13	2°24'38		-1954 Feb 08 j 01:58	0° $\frac{1}{2}$	
min. Earth dist.	-1960 May 01 j 02:35	22° $\frac{1}{2}$ 45'48	9.16030 AU	retrograde	-1954 May 02 j 19:33	5° $\frac{1}{2}$ 08'26	
direct	-1960 Jul 11 j 02:38	19° $\frac{1}{2}$ 28'31		opposition	-1954 Jul 12 j 10:29	1° $\frac{1}{2}$ 44'56	0°-38'-49
evening set	-1960 Oct 20 j 07:34	26° $\frac{1}{2}$ 25'15		min. Earth dist.	-1954 Jul 12 j 18:03	1° $\frac{1}{2}$ 43'30	8.68139 AU
					-1954 Aug 05 j 14:23	30° $\frac{1}{2}$ $\frac{1}{2}$	
conjunction	-1960 Nov 05 j 18:21	28° $\frac{1}{2}$ 19'43	1°50'27	direct	-1954 Sep 19 j 01:23	28° $\frac{1}{2}$ 25'18	
minimum elong	-1960 Nov 05 j 18:23	28° $\frac{1}{2}$ 19'44	1°50'26		-1954 Nov 01 j 00:30	0° $\frac{1}{2}$	
max. Earth dist.	-1960 Nov 05 j 08:28	28° $\frac{1}{2}$ 16'50	11.14985 AU	evening set	-1954 Dec 27 j 15:09	5° $\frac{1}{2}$ 42'31	
	-1960 Nov 20 j 03:31	0° $\frac{1}{2}$					
morning rise	-1960 Nov 22 j 04:46	0° $\frac{1}{2}$ 14'07		conjunction	-1953 Jan 13 j 13:32	7° $\frac{1}{2}$ 46'59	0°-45'-56
retrograde	-1959 Mar 02 j 19:29	7° $\frac{1}{2}$ 09'55		minimum elong	-1953 Jan 13 j 13:30	7° $\frac{1}{2}$ 46'59	0°45'59
opposition	-1959 May 12 j 16:33	3° $\frac{1}{2}$ 52'26	2°03'18	max. Earth dist.	-1953 Jan 13 j 05:46	7° $\frac{1}{2}$ 44'35	10.61611 AU
min. Earth dist.	-1959 May 13 j 01:33	3° $\frac{1}{2}$ 50'48	9.13554 AU	morning rise	-1953 Jan 30 j 16:09	9° $\frac{1}{2}$ 52'51	
direct	-1959 Jul 22 j 18:05	0° $\frac{1}{2}$ 34'11		retrograde	-1953 May 16 j 05:35	17° $\frac{1}{2}$ 36'11	
evening set	-1959 Oct 31 j 09:08	7° $\frac{1}{2}$ 30'25		opposition	-1953 Jul 25 j 12:06	14° $\frac{1}{2}$ 11'06	-1°-14'-43
				min. Earth dist.	-1953 Jul 25 j 17:53	14° $\frac{1}{2}$ 09'59	8.54809 AU
conjunction	-1959 Nov 16 j 20:36	9° $\frac{1}{2}$ 25'33	1°30'53	direct	-1953 Oct 01 j 12:41	10° $\frac{1}{2}$ 50'28	
minimum elong	-1959 Nov 16 j 20:39	9° $\frac{1}{2}$ 25'34	1°30'52	evening set	-1952 Jan 09 j 08:36	18° $\frac{1}{2}$ 16'16	
max. Earth dist.	-1959 Nov 16 j 10:10	9° $\frac{1}{2}$ 22'29	11.11290 AU				
morning rise	-1959 Dec 03 j 08:36	11° $\frac{1}{2}$ 20'53		conjunction	-1952 Jan 26 j 10:06	20° $\frac{1}{2}$ 23'27	-1°-14'-2
	-1958 Jan 06 j 22:46	15° $\frac{1}{2}$		minimum elong	-1952 Jan 26 j 10:03	20° $\frac{1}{2}$ 23'27	1°14'04
retrograde	-1958 Mar 14 j 14:59	18° $\frac{1}{2}$ 21'06		max. Earth dist.	-1952 Jan 26 j 03:55	20° $\frac{1}{2}$ 21'31	10.48023 AU
opposition	-1958 May 24 j 16:19	15° $\frac{1}{2}$ 02'46	1°37'10	morning rise	-1952 Feb 12 j 16:14	22° $\frac{1}{2}$ 32'10	
min. Earth dist.	-1958 May 25 j 01:17	15° $\frac{1}{2}$ 01'08	9.08566 AU		-1952 May 06 j 00:45	0° $\frac{1}{2}$	
	-1958 May 25 j 07:25	15° $\frac{1}{2}$ $\frac{1}{2}$		retrograde	-1952 May 29 j 01:05	0° $\frac{1}{2}$ 26'51	
direct	-1958 Aug 03 j 09:08	11° $\frac{1}{2}$ 44'45			-1952 Jun 21 j 04:17	30° $\frac{1}{2}$ $\frac{1}{2}$	
	-1958 Oct 07 j 13:29	15° $\frac{1}{2}$		opposition	-1952 Aug 06 j 20:54	27° $\frac{1}{2}$ 00'11	-1°-48'-7
evening set	-1958 Nov 11 j 13:01	18° $\frac{1}{2}$ 42'02		min. Earth dist.	-1952 Aug 07 j 00:54	26° $\frac{1}{2}$ 59'24	8.41170 AU
				direct	-1952 Oct 13 j 07:51	23° $\frac{1}{2}$ 38'22	
conjunction	-1958 Nov 28 j 01:53	20° $\frac{1}{2}$ 38'18	1°07'40		-1951 Jan 11 j 12:03	0° $\frac{1}{2}$	
minimum elong	-1958 Nov 28 j 01:55	20° $\frac{1}{2}$ 38'19	1°07'38	evening set	-1951 Jan 21 j 14:00	1° $\frac{1}{2}$ 13'52	
max. Earth dist.	-1958 Nov 27 j 15:50	20° $\frac{1}{2}$ 35'20	11.05150 AU				
morning rise	-1958 Dec 14 j 15:56	22° $\frac{1}{2}$ 35'00		conjunction	-1951 Feb 07 j 18:48	3° $\frac{1}{2}$ 23'55	-1°-39'-10
retrograde	-1957 Mar 26 j 18:35	29° $\frac{1}{2}$ 41'11		minimum elong	-1951 Feb 07 j 18:45	3° $\frac{1}{2}$ 23'54	1°39'12
opposition	-1957 Jun 05 j 19:14	26° $\frac{1}{2}$ 21'49	1°06'55	max. Earth dist.	-1951 Feb 07 j 13:37	3° $\frac{1}{2}$ 22'16	10.34407 AU
min. Earth dist.	-1957 Jun 06 j 03:52	26° $\frac{1}{2}$ 20'13	9.01224 AU	morning rise	-1951 Feb 25 j 04:39	5° $\frac{1}{2}$ 35'35	
direct	-1957 Aug 15 j 02:13	23° $\frac{1}{2}$ 03'47		retrograde	-1951 Jun 12 j 06:01	13° $\frac{1}{2}$ 41'27	
evening set	-1957 Nov 22 j 21:00	0° $\frac{1}{2}$ 03'41		opposition	-1951 Aug 20 j 12:54	10° $\frac{1}{2}$ 13'22	-2°-16'-59
	-1957 Nov 22 j 08:20	0° $\frac{1}{2}$ $\frac{1}{2}$		min. Earth dist.	-1951 Aug 20 j 15:35	10° $\frac{1}{2}$ 12'49	8.27853 AU
				direct	-1951 Oct 26 j 10:43	6° $\frac{1}{2}$ 50'12	
conjunction	-1957 Dec 09 j 11:38	2° $\frac{1}{2}$ 01'30	0°41'28	evening set	-1950 Feb 04 j 07:48	14° $\frac{1}{2}$ 36'09	
minimum elong	-1957 Dec 09 j 11:39	2° $\frac{1}{2}$ 01'30	0°41'25		-1950 Feb 07 j 11:21	15° $\frac{1}{2}$	
max. Earth dist.	-1957 Dec 09 j 01:22	1° $\frac{1}{2}$ 58'27	10.96773 AU				
morning rise	-1957 Dec 26 j 04:21	4° $\frac{1}{2}$ 00'01		conjunction	-1950 Feb 21 j 16:14	16° $\frac{1}{2}$ 49'06	-1°-59'-40
retrograde	-1956 Apr 07 j 02:56	11° $\frac{1}{2}$ 13'38		minimum elong	-1950 Feb 21 j 16:12	16° $\frac{1}{2}$ 49'05	1°59'42
opposition	-1956 Jun 17 j 02:47	7° $\frac{1}{2}$ 53'03	0°33'25	max. Earth dist.	-1950 Feb 21 j 12:46	16° $\frac{1}{2}$ 47'59	10.21485 AU
min. Earth dist.	-1956 Jun 17 j 11:22	7° $\frac{1}{2}$ 51'27	8.91794 AU	morning rise	-1950 Mar 11 j 05:51	19° $\frac{1}{2}$ 03'42	
direct	-1956 Aug 25 j 19:44	4° $\frac{1}{2}$ 34'45		retrograde	-1950 Jun 26 j 18:59	27° $\frac{1}{2}$ 19'48	
evening set	-1956 Dec 03 j 10:47	11° $\frac{1}{2}$ 38'52		opposition	-1950 Sep 03 j 11:56	23° $\frac{1}{2}$ 50'30	-2°-39'-9
				min. Earth dist.	-1950 Sep 03 j 13:04	23° $\frac{1}{2}$ 50'16	8.15647 AU
conjunction	-1956 Dec 20 j 03:33	13° $\frac{1}{2}$ 38'34	0°13'08	direct	-1950 Nov 08 j 23:09	20° $\frac{1}{2}$ 25'56	
minimum elong	-1956 Dec 20 j 03:33	13° $\frac{1}{2}$ 38'34	0°13'05	evening set	-1949 Feb 18 j 13:42	28° $\frac{1}{2}$ 22'15	
behind sun begin	-1956 Dec 19 j 23:15	13° $\frac{1}{2}$ 37'18			-1949 Mar 03 j 05:08	0° $\frac{1}{2}$ $\frac{1}{2}$	
behind sun end	-1956 Dec 20 j 07:51	13° $\frac{1}{2}$ 39'51					
max. Earth dist.	-1956 Dec 19 j 16:54	13° $\frac{1}{2}$ 35'23	10.86464 AU	conjunction	-1949 Mar 08 j 02:03	0° $\frac{1}{2}$ 38'01	-2°-13'-54
morning rise	-1955 Jan 05 j 23:28	15° $\frac{1}{2}$ 39'16		minimum elong	-1949 Mar 08 j 02:01	0° $\frac{1}{2}$ 38'00	2°13'56
retrograde	-1955 Apr 19 j 18:19	23° $\frac{1}{2}$ 01'45		max. Earth dist.	-1949 Mar 08 j 01:21	0° $\frac{1}{2}$ 37'47	10.10084 AU
desc. node	-1955 Jun 06 j 04:13	21° $\frac{1}{2}$ 20'48		morning rise	-1949 Mar 25 j 19:17	2° $\frac{1}{2}$ 55'20	
opposition	-1955 Jun 29 j 15:43	19° $\frac{1}{2}$ 39'46	0°-2'-15	retrograde	-1949 Jul 11 j 12:48	11° $\frac{1}{2}$ 19'45	
min. Earth dist.	-1955 Jun 30 j 00:19	19° $\frac{1}{2}$ 38'09	8.80627 AU	opposition	-1949 Sep 17 j 17:00	7° $\frac{1}{2}$ 49'29	-2°-52'-37
direct	-1955 Sep 06 j 19:43	16° $\frac{1}{2}$ 20'55		min. Earth dist.	-1949 Sep 17 j 16:04	7° $\frac{1}{2}$ 49'41	8.05363 AU
evening set	-1955 Dec 15 j 08:19	23° $\frac{1}{2}$ 30'50		direct	-1949 Nov 22 j 21:52	4° $\frac{1}{2}$ 23'31	
				evening set	-1948 Mar 04 j 06:45	12° $\frac{1}{2}$ 29'20	

# Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 38

Attention, astronomical year style is used: The year -1948 in astronomical counting style is the year 1949 BCE in historical counting style.

conjunction	-1948 Mar 21 j 23:16	14° <del>✕</del> 47'38	-2°-20'-29	morning rise	-1942 Jul 09 j 00:05	13° <del>Π</del> 30'56	
minimum elong	-1948 Mar 21 j 23:16	14° <del>✕</del> 47'38	2°20'31	retrograde	-1942 Oct 19 j 06:23	21° <del>Π</del> 25'28	
max. Earth dist.	-1948 Mar 22 j 02:04	14° <del>✕</del> 48'33	10.00991 AU	opposition	-1942 Dec 24 j 20:33	17° <del>Π</del> 59'32	0°-3'-16
morning rise	-1948 Apr 08 j 20:01	17° <del>✕</del> 07'19		min. Earth dist.	-1942 Dec 24 j 12:00	18° <del>Π</del> 01'17	8.20047 AU
retrograde	-1948 Jul 25 j 10:33	25° <del>✕</del> 37'10		asc. node	-1941 Jan 23 j 16:44	15° <del>Π</del> 45'29	
opposition	-1948 Oct 01 j 02:33	22° <del>✕</del> 06'18	-2°-55'-49	direct	-1941 Mar 03 j 03:04	14° <del>Π</del> 29'51	
min. Earth dist.	-1948 Sep 30 j 23:09	22° <del>✕</del> 07'00	7.97703 AU	evening set	-1941 Jun 17 j 10:42	22° <del>Π</del> 35'31	
direct	-1948 Dec 06 j 04:02	18° <del>✕</del> 39'01					
evening set	-1947 Mar 19 j 08:55	26° <del>✕</del> 52'37		conjunction	-1941 Jul 05 j 10:42	24° <del>Π</del> 51'34	0°14'19
				minimum elong	-1941 Jul 05 j 10:41	24° <del>Π</del> 51'33	0°14'21
conjunction	-1947 Apr 06 j 05:37	29° <del>✕</del> 13'03	-2°-18'-30	behind sun begin	-1941 Jul 05 j 07:31	24° <del>Π</del> 50'34	
minimum elong	-1947 Apr 06 j 05:39	29° <del>✕</del> 13'03	2°18'31	behind sun end	-1941 Jul 05 j 13:52	24° <del>Π</del> 52'33	
max. Earth dist.	-1947 Apr 06 j 11:55	29° <del>✕</del> 15'07	9.94834 AU	max. Earth dist.	-1941 Jul 05 j 20:53	24° <del>Π</del> 54'47	10.26292 AU
	-1947 Apr 12 j 04:00	0° <del>Υ</del>		morning rise	-1941 Jul 23 j 06:43	27° <del>Π</del> 06'18	
morning rise	-1947 Apr 24 j 05:31	1° <del>Υ</del> 34'32			-1941 Aug 16 j 18:08	0° <del>☿</del>	
retrograde	-1947 Aug 09 j 09:58	10° <del>Υ</del> 06'17		retrograde	-1941 Nov 01 j 13:55	4° <del>☿</del> 49'22	
opposition	-1947 Oct 15 j 14:48	6° <del>Υ</del> 35'15	-2°-47'-56	opposition	-1940 Jan 07 j 09:28	1° <del>☿</del> 25'06	0°37'32
min. Earth dist.	-1947 Oct 15 j 08:53	6° <del>Υ</del> 36'29	7.93185 AU	min. Earth dist.	-1940 Jan 07 j 01:17	1° <del>☿</del> 26'45	8.32717 AU
direct	-1947 Dec 20 j 16:10	3° <del>Υ</del> 06'49			-1940 Jan 25 j 13:50	30° <del>♊</del>	
evening set	-1946 Apr 03 j 17:21	11° <del>Υ</del> 25'49		direct	-1940 Mar 16 j 07:34	27° <del>Π</del> 56'12	
					-1940 May 05 j 06:57	0° <del>☿</del>	
conjunction	-1946 Apr 21 j 17:44	13° <del>Υ</del> 47'43	-2°-7'-43	evening set	-1940 Jun 30 j 14:04	5° <del>☿</del> 53'39	
minimum elong	-1946 Apr 21 j 17:47	13° <del>Υ</del> 47'44	2°07'43				
max. Earth dist.	-1946 Apr 22 j 02:55	13° <del>Υ</del> 50'45	9.92034 AU	conjunction	-1940 Jul 18 j 09:44	8° <del>☿</del> 06'29	0°46'13
morning rise	-1946 May 09 j 20:07	16° <del>Υ</del> 10'16		minimum elong	-1940 Jul 18 j 09:42	8° <del>☿</del> 06'28	0°46'15
retrograde	-1946 Aug 24 j 08:09	24° <del>Υ</del> 40'10		max. Earth dist.	-1940 Jul 18 j 18:42	8° <del>☿</del> 09'17	10.39512 AU
opposition	-1946 Oct 30 j 03:33	21° <del>Υ</del> 09'24	-2°-29'-11	morning rise	-1940 Aug 05 j 00:37	10° <del>☿</del> 17'49	
min. Earth dist.	-1946 Oct 29 j 19:45	21° <del>Υ</del> 11'02	7.92117 AU	retrograde	-1940 Nov 13 j 11:36	17° <del>☿</del> 49'53	
direct	-1945 Jan 04 j 08:18	17° <del>Υ</del> 40'04		opposition	-1939 Jan 19 j 15:10	14° <del>☿</del> 27'20	1°15'06
evening set	-1945 Apr 19 j 04:35	26° <del>Υ</del> 01'39		min. Earth dist.	-1939 Jan 19 j 07:52	14° <del>☿</del> 28'47	8.46314 AU
				direct	-1939 Mar 30 j 04:38	10° <del>☿</del> 59'29	
conjunction	-1945 May 07 j 07:50	28° <del>Υ</del> 24'11	-1°-48'-45	evening set	-1939 Jul 14 j 06:03	18° <del>☿</del> 48'09	
minimum elong	-1945 May 07 j 07:54	28° <del>Υ</del> 24'12	1°48'45				
max. Earth dist.	-1945 May 07 j 19:05	28° <del>Υ</del> 27'54	9.92783 AU	conjunction	-1939 Jul 31 j 20:34	20° <del>☿</del> 57'35	1°14'57
	-1945 May 19 j 11:15	0° <del>♄</del>		minimum elong	-1939 Jul 31 j 20:31	20° <del>☿</del> 57'34	1°14'58
morning rise	-1945 May 25 j 11:46	0° <del>♄</del> 46'56		max. Earth dist.	-1939 Aug 01 j 04:14	20° <del>☿</del> 59'57	10.53278 AU
retrograde	-1945 Sep 08 j 02:31	9° <del>♄</del> 11'26		morning rise	-1939 Aug 18 j 05:48	23° <del>☿</del> 05'25	
opposition	-1945 Nov 13 j 14:42	5° <del>♄</del> 41'22	-2°00'-54		-1939 Nov 03 j 11:01	0° <del>♊</del>	
min. Earth dist.	-1945 Nov 13 j 05:51	5° <del>♄</del> 43'14	7.94570 AU	retrograde	-1939 Nov 26 j 01:44	0° <del>♊</del> 27'29	
direct	-1944 Jan 19 j 03:44	2° <del>♄</del> 11'25			-1939 Dec 18 j 20:54	30° <del>♊</del>	
evening set	-1944 May 03 j 15:03	10° <del>♄</del> 32'39		opposition	-1938 Feb 01 j 14:10	27° <del>☿</del> 06'35	1°47'47
				min. Earth dist.	-1938 Feb 01 j 08:41	27° <del>☿</del> 07'39	8.60135 AU
conjunction	-1944 May 21 j 19:55	12° <del>♄</del> 54'53	-1°-22'-59	direct	-1938 Apr 12 j 16:50	23° <del>☿</del> 39'58	
minimum elong	-1944 May 21 j 19:59	12° <del>♄</del> 54'55	1°22'58		-1938 Jul 16 j 01:53	0° <del>♊</del>	
max. Earth dist.	-1944 May 22 j 08:11	12° <del>♄</del> 58'55	9.97002 AU	evening set	-1938 Jul 27 j 10:25	1° <del>♊</del> 19'44	
	-1944 Jun 06 j 19:36	15° <del>♄</del>					
morning rise	-1944 Jun 09 j 00:07	15° <del>♄</del> 16'54		conjunction	-1938 Aug 13 j 19:23	3° <del>♊</del> 25'48	1°39'19
retrograde	-1944 Sep 21 j 12:52	23° <del>♄</del> 33'03		minimum elong	-1938 Aug 13 j 19:20	3° <del>♊</del> 25'47	1°39'21
opposition	-1944 Nov 26 j 22:16	20° <del>♄</del> 04'07	-1°-25'-17	max. Earth dist.	-1938 Aug 14 j 00:51	3° <del>♊</del> 27'28	10.66909 AU
min. Earth dist.	-1944 Nov 26 j 13:15	20° <del>♄</del> 05'59	8.00343 AU	morning rise	-1938 Aug 30 j 23:06	5° <del>♊</del> 30'18	
direct	-1943 Feb 01 j 23:16	16° <del>♄</del> 33'53		retrograde	-1938 Dec 08 j 08:46	12° <del>♊</del> 43'36	
evening set	-1943 May 18 j 21:30	24° <del>♄</del> 52'03		opposition	-1937 Feb 14 j 06:42	9° <del>♊</del> 24'11	2°14'27
				min. Earth dist.	-1937 Feb 14 j 03:31	9° <del>♊</del> 24'48	8.73519 AU
conjunction	-1943 Jun 06 j 02:20	27° <del>♄</del> 13'01	0°-52'-24	direct	-1937 Apr 25 j 20:00	5° <del>♊</del> 58'55	
minimum elong	-1943 Jun 06 j 02:23	27° <del>♄</del> 13'02	0°52'23	evening set	-1937 Aug 09 j 03:59	13° <del>♊</del> 30'03	
max. Earth dist.	-1943 Jun 06 j 14:26	27° <del>♄</del> 16'56	10.04355 AU		-1937 Aug 21 j 17:45	15° <del>♊</del>	
morning rise	-1943 Jun 24 j 05:15	29° <del>♄</del> 33'19					
	-1943 Jun 27 j 17:35	0° <del>♊</del>		conjunction	-1937 Aug 26 j 07:29	15° <del>♊</del> 33'01	1°58'36
retrograde	-1943 Oct 05 j 14:12	7° <del>♊</del> 39'10		minimum elong	-1937 Aug 26 j 07:26	15° <del>♊</del> 33'00	1°58'37
opposition	-1943 Dec 11 j 00:36	4° <del>♊</del> 11'38	0°-45'-6	max. Earth dist.	-1937 Aug 26 j 09:52	15° <del>♊</del> 33'44	10.79787 AU
min. Earth dist.	-1943 Dec 10 j 15:51	4° <del>♊</del> 13'26	8.09026 AU	morning rise	-1937 Sep 12 j 06:08	17° <del>♊</del> 34'30	
direct	-1942 Feb 16 j 15:56	0° <del>♊</del> 41'30		retrograde	-1937 Dec 20 j 06:38	24° <del>♊</del> 40'24	
evening set	-1942 Jun 02 j 20:50	8° <del>♊</del> 54'18		opposition	-1936 Feb 26 j 17:22	21° <del>♊</del> 22'15	2°34'27
				min. Earth dist.	-1936 Feb 26 j 16:09	21° <del>♊</del> 22'29	8.85869 AU
conjunction	-1942 Jun 20 j 23:58	11° <del>♊</del> 13'07	0°-19'-15	direct	-1936 May 07 j 17:26	17° <del>♊</del> 58'22	
minimum elong	-1942 Jun 20 j 23:59	11° <del>♊</del> 13'08	0°19'14	evening set	-1936 Aug 20 j 11:26	25° <del>♊</del> 21'27	
max. Earth dist.	-1942 Jun 21 j 11:10	11° <del>♊</del> 16'43	10.14333 AU				

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 39

Attention, astronomical year style is used: The year -1936 in astronomical counting style is the year 1937 BCE in historical counting style.

conjunction	-1936 Sep 06 j 10:01	27° $\Omega$ 21'39	2°12'20	conjunction	-1930 Nov 12 j 05:49	4° $\mathbb{M}$ 38'27	1°40'10
minimum elong	-1936 Sep 06 j 09:58	27° $\Omega$ 21'38	2°12'21	minimum elong	-1930 Nov 12 j 05:51	4° $\mathbb{M}$ 38'28	1°40'10
max. Earth dist.	-1936 Sep 06 j 09:51	27° $\Omega$ 21'36	10.91371 AU	max. Earth dist.	-1930 Nov 11 j 19:16	4° $\mathbb{M}$ 35'22	11.13864 AU
morning rise	-1936 Sep 23 j 04:11	29° $\Omega$ 20'32		morning rise	-1930 Nov 28 j 16:52	6° $\mathbb{M}$ 33'16	
	-1936 Sep 28 j 20:49	0° $\mathbb{M}$		retrograde	-1929 Mar 09 j 17:00	13° $\mathbb{M}$ 31'18	
retrograde	-1936 Dec 31 j 02:07	6° $\mathbb{M}$ 20'35		opposition	-1929 May 19 j 15:07	10° $\mathbb{M}$ 13'42	1°49'29
opposition	-1935 Mar 09 j 23:22	3° $\mathbb{M}$ 03'25	2°47'30	min. Earth dist.	-1929 May 20 j 00:55	10° $\mathbb{M}$ 11'54	9.11505 AU
min. Earth dist.	-1935 Mar 09 j 23:20	3° $\mathbb{M}$ 03'25	8.96676 AU	direct	-1929 Jul 29 j 11:19	6° $\mathbb{M}$ 55'49	
	-1935 Apr 30 j 05:51	30° $\mathbb{R}$ $\Omega$		evening set	-1929 Nov 06 j 21:41	13° $\mathbb{M}$ 52'36	
direct	-1935 May 20 j 07:35	29° $\Omega$ 40'55			-1929 Nov 16 j 13:28	15° $\mathbb{M}$	
	-1935 Jun 09 j 04:29	0° $\mathbb{M}$					
evening set	-1935 Sep 01 j 09:47	6° $\mathbb{M}$ 56'37		conjunction	-1929 Nov 23 j 09:44	15° $\mathbb{M}$ 48'18	1°18'32
				minimum elong	-1929 Nov 23 j 09:46	15° $\mathbb{M}$ 48'18	1°18'31
conjunction	-1935 Sep 18 j 04:16	8° $\mathbb{M}$ 54'33	2°20'21	max. Earth dist.	-1929 Nov 22 j 21:30	15° $\mathbb{M}$ 44'42	11.08372 AU
minimum elong	-1935 Sep 18 j 04:15	8° $\mathbb{M}$ 54'33	2°20'22	morning rise	-1929 Dec 09 j 22:48	17° $\mathbb{M}$ 44'20	
max. Earth dist.	-1935 Sep 18 j 02:49	8° $\mathbb{M}$ 54'08	11.01205 AU	retrograde	-1928 Mar 20 j 16:13	24° $\mathbb{M}$ 47'44	
morning rise	-1935 Oct 04 j 18:42	10° $\mathbb{M}$ 51'20		opposition	-1928 May 30 j 16:59	21° $\mathbb{M}$ 29'01	1°21'01
retrograde	-1934 Jan 11 j 18:04	17° $\mathbb{M}$ 47'04		min. Earth dist.	-1928 May 31 j 03:44	21° $\mathbb{M}$ 27'02	9.04735 AU
opposition	-1934 Mar 22 j 01:31	14° $\mathbb{M}$ 30'35	2°53'36	direct	-1928 Aug 09 j 04:05	18° $\mathbb{M}$ 11'02	
min. Earth dist.	-1934 Mar 22 j 03:15	14° $\mathbb{M}$ 30'16	9.05523 AU	evening set	-1928 Nov 17 j 03:49	25° $\mathbb{M}$ 09'47	
direct	-1934 Jun 01 j 13:11	11° $\mathbb{M}$ 09'22					
evening set	-1934 Sep 13 j 00:46	18° $\mathbb{M}$ 18'39		conjunction	-1928 Dec 03 j 17:30	27° $\mathbb{M}$ 06'53	0°53'36
				minimum elong	-1928 Dec 03 j 17:32	27° $\mathbb{M}$ 06'54	0°53'34
conjunction	-1934 Sep 29 j 15:58	20° $\mathbb{M}$ 14'50	2°22'42	max. Earth dist.	-1928 Dec 03 j 05:17	27° $\mathbb{M}$ 03'16	11.00500 AU
minimum elong	-1934 Sep 29 j 15:58	20° $\mathbb{M}$ 14'50	2°22'42	morning rise	-1928 Dec 20 j 09:04	29° $\mathbb{M}$ 04'35	
max. Earth dist.	-1934 Sep 29 j 12:36	20° $\mathbb{M}$ 13'51	11.08918 AU		-1928 Dec 28 j 10:26	0° $\mathbb{M}$	
morning rise	-1934 Oct 16 j 03:42	22° $\mathbb{M}$ 10'05		retrograde	-1927 Apr 01 j 20:58	6° $\mathbb{M}$ 14'52	
retrograde	-1933 Jan 23 j 06:51	29° $\mathbb{M}$ 03'00		opposition	-1927 Jun 11 j 22:37	2° $\mathbb{M}$ 54'47	0°48'53
opposition	-1933 Apr 03 j 00:40	25° $\mathbb{M}$ 46'55	2°52'54	min. Earth dist.	-1927 Jun 12 j 09:00	2° $\mathbb{M}$ 52'52	8.95727 AU
min. Earth dist.	-1933 Apr 03 j 04:53	25° $\mathbb{M}$ 46'09	9.12083 AU		-1927 Jul 30 j 00:02	30° $\mathbb{R}$ $\mathbb{M}$	
direct	-1933 Jun 13 j 14:16	22° $\mathbb{M}$ 26'46		direct	-1927 Aug 20 j 22:20	29° $\mathbb{M}$ 36'27	
evening set	-1933 Sep 24 j 09:54	29° $\mathbb{M}$ 30'48			-1927 Sep 11 j 13:48	0° $\mathbb{M}$	
	-1933 Sep 28 j 15:37	0° $\mathbb{M}$		evening set	-1927 Nov 28 j 14:48	6° $\mathbb{M}$ 38'46	
conjunction	-1933 Oct 10 j 22:37	1° $\mathbb{M}$ 25'47	2°19'33	conjunction	-1927 Dec 15 j 06:42	8° $\mathbb{M}$ 37'40	0°26'08
minimum elong	-1933 Oct 10 j 22:38	1° $\mathbb{M}$ 25'48	2°19'32	minimum elong	-1927 Dec 15 j 06:43	8° $\mathbb{M}$ 37'40	0°26'04
max. Earth dist.	-1933 Oct 10 j 16:18	1° $\mathbb{M}$ 23'57	11.14221 AU	max. Earth dist.	-1927 Dec 14 j 19:34	8° $\mathbb{M}$ 34'20	10.90529 AU
morning rise	-1933 Oct 27 j 08:50	3° $\mathbb{M}$ 20'05		morning rise	-1926 Jan 01 j 01:06	10° $\mathbb{M}$ 37'24	
retrograde	-1932 Feb 03 j 18:21	10° $\mathbb{M}$ 11'46		retrograde	-1926 Apr 14 j 10:10	17° $\mathbb{M}$ 56'03	
opposition	-1932 Apr 13 j 22:07	6° $\mathbb{M}$ 55'46	2°45'43	opposition	-1926 Jun 24 j 09:02	14° $\mathbb{M}$ 34'24	0°14'03
min. Earth dist.	-1932 Apr 14 j 04:37	6° $\mathbb{M}$ 54'34	9.16085 AU	min. Earth dist.	-1926 Jun 24 j 18:12	14° $\mathbb{M}$ 32'41	8.84806 AU
direct	-1932 Jun 24 j 11:07	3° $\mathbb{M}$ 36'30		direct	-1926 Sep 01 j 20:52	11° $\mathbb{M}$ 15'29	
evening set	-1932 Oct 04 j 14:37	10° $\mathbb{M}$ 36'32		desc. node	-1926 Nov 18 j 13:35	15° $\mathbb{M}$ 54'44	
				evening set	-1926 Dec 10 j 08:47	18° $\mathbb{M}$ 22'58	
conjunction	-1932 Oct 21 j 01:52	12° $\mathbb{M}$ 30'52	2°11'09	conjunction	-1926 Dec 27 j 03:07	20° $\mathbb{M}$ 24'02	0°-3'-4
minimum elong	-1932 Oct 21 j 01:54	12° $\mathbb{M}$ 30'53	2°11'08	minimum elong	-1926 Dec 27 j 03:06	20° $\mathbb{M}$ 24'01	0°03'09
max. Earth dist.	-1932 Oct 20 j 17:27	12° $\mathbb{M}$ 28'25	11.16878 AU	behind sun begin	-1926 Dec 26 j 20:06	20° $\mathbb{M}$ 21'56	
morning rise	-1932 Nov 06 j 11:30	14° $\mathbb{M}$ 24'47		behind sun end	-1926 Dec 27 j 10:05	20° $\mathbb{M}$ 26'07	
retrograde	-1931 Feb 14 j 06:30	21° $\mathbb{M}$ 16'56		max. Earth dist.	-1926 Dec 26 j 16:27	20° $\mathbb{M}$ 20'49	10.78825 AU
opposition	-1931 Apr 25 j 18:53	18° $\mathbb{M}$ 00'40	2°32'25	morning rise	-1925 Jan 13 j 00:42	22° $\mathbb{M}$ 26'09	
min. Earth dist.	-1931 Apr 26 j 02:27	17° $\mathbb{M}$ 59'17	9.17331 AU	retrograde	-1925 Apr 27 j 08:21	29° $\mathbb{M}$ 54'25	
direct	-1931 Jul 06 j 05:28	14° $\mathbb{M}$ 42'07		opposition	-1925 Jul 07 j 01:10	26° $\mathbb{M}$ 31'09	0°-22'-17
evening set	-1931 Oct 15 j 16:52	21° $\mathbb{M}$ 39'33		min. Earth dist.	-1925 Jul 07 j 09:27	26° $\mathbb{M}$ 29'34	8.72390 AU
				direct	-1925 Sep 13 j 22:22	23° $\mathbb{M}$ 11'25	
conjunction	-1931 Nov 01 j 03:45	23° $\mathbb{M}$ 33'50	1°57'53		-1925 Dec 18 j 21:23	0° $\mathbb{M}$	
minimum elong	-1931 Nov 01 j 03:47	23° $\mathbb{M}$ 33'51	1°57'53	evening set	-1925 Dec 22 j 11:22	0° $\mathbb{M}$ 25'40	
max. Earth dist.	-1931 Oct 31 j 18:28	23° $\mathbb{M}$ 31'08	11.16750 AU				
morning rise	-1931 Nov 17 j 13:37	25° $\mathbb{M}$ 27'55					
	-1930 Jan 01 j 14:36	0° $\mathbb{M}$		conjunction	-1924 Jan 08 j 08:18	2° $\mathbb{M}$ 29'09	0°-32'-42
retrograde	-1930 Feb 25 j 23:02	2° $\mathbb{M}$ 22'13		minimum elong	-1924 Jan 08 j 08:17	2° $\mathbb{M}$ 29'08	0°32'46
	-1930 Apr 25 j 01:24	30° $\mathbb{R}$ $\mathbb{M}$		max. Earth dist.	-1924 Jan 07 j 22:07	2° $\mathbb{M}$ 26'01	10.65855 AU
opposition	-1930 May 07 j 16:06	29° $\mathbb{M}$ 05'26	2°13'30	morning rise	-1924 Jan 25 j 09:26	4° $\mathbb{M}$ 33'57	
min. Earth dist.	-1930 May 08 j 00:34	29° $\mathbb{M}$ 03'53	9.15771 AU	retrograde	-1924 May 09 j 13:36	12° $\mathbb{M}$ 12'53	
direct	-1930 Jul 17 j 21:17	25° $\mathbb{M}$ 47'21		opposition	-1924 Jul 19 j 00:01	8° $\mathbb{M}$ 47'57	0°-58'-45
	-1930 Oct 01 j 14:13	0° $\mathbb{M}$		min. Earth dist.	-1924 Jul 19 j 07:26	8° $\mathbb{M}$ 46'32	8.58992 AU
evening set	-1930 Oct 26 j 18:37	2° $\mathbb{M}$ 43'41		direct	-1924 Sep 25 j 06:16	5° $\mathbb{M}$ 27'11	
				evening set	-1923 Jan 02 j 23:55	12° $\mathbb{M}$ 49'40	

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 40

Attention, astronomical year style is used: The year -1923 in astronomical counting style is the year 1924 BCE in historical counting style.

conjunction	-1923 Jan 19 j 23:55	14°☾55°50	-1°-1'-38			-1917 Feb 11 j 09:07	0°♊	
minimum elong	-1923 Jan 19 j 23:53	14°☾55°49	1°01'41	evening set		-1917 Mar 28 j 06:36	5°♊12'57	
max. Earth dist.	-1923 Jan 19 j 15:16	14°☾53°08	10.52159 AU					
morning rise	-1923 Feb 06 j 04:41	17°☾03°28		conjunction		-1917 Apr 15 j 05:14	7°♊34°23	-2°-13'-32
retrograde	-1923 May 23 j 04:03	24°☾53°48		minimum elong		-1917 Apr 15 j 05:17	7°♊34°24	2°13'33
opposition	-1923 Aug 01 j 05:54	21°☾27°13	-1°-33'-35	max. Earth dist.		-1917 Apr 15 j 13:19	7°♊37°03	9.92219 AU
min. Earth dist.	-1923 Aug 01 j 11:55	21°☾26°02	8.45189 AU	morning rise		-1917 May 03 j 06:46	9°♊56°43	
direct	-1923 Oct 07 j 23:33	18°☾05°16		retrograde		-1917 Aug 18 j 04:35	18°♊28°25	
evening set	-1922 Jan 16 j 00:03	25°☾37°09		opposition		-1917 Oct 24 j 03:05	14°♊57°28	-2°-38'-44
				min. Earth dist.		-1917 Oct 23 j 19:57	14°♊58°58	7.91734 AU
conjunction	-1922 Feb 02 j 03:26	27°☾46°10	-1°-28'-21	direct		-1917 Dec 29 j 04:58	11°♊28°34	
minimum elong	-1922 Feb 02 j 03:23	27°☾46°09	1°28'23	evening set		-1916 Apr 11 j 17:28	19°♊49°46	
max. Earth dist.	-1922 Feb 01 j 21:33	27°☾44°18	10.38346 AU					
morning rise	-1922 Feb 19 j 11:44	29°☾56°45		conjunction		-1916 Apr 29 j 19:29	22°♊12°11	-1°-58'-1
	-1922 Feb 19 j 22:14	0°♊		minimum elong		-1916 Apr 29 j 19:32	22°♊12°13	1°58'01
retrograde	-1922 Jun 06 j 04:54	7°♊58°30		max. Earth dist.		-1916 Apr 30 j 06:05	22°♊15°42	9.91805 AU
opposition	-1922 Aug 14 j 18:52	4°♊30°24	-2°-4'-48	morning rise		-1916 May 17 j 23:05	24°♊35°05	
min. Earth dist.	-1922 Aug 14 j 22:34	4°♊29°40	8.31630 AU			-1916 Jul 03 j 20:16	0°♋	
direct	-1922 Oct 20 j 23:28	1°♊07°12		retrograde		-1916 Sep 01 j 00:45	3°♋02°46	
evening set	-1921 Jan 29 j 12:24	8°♊49°16				-1916 Nov 01 j 03:46	30°♋♊	
				opposition		-1916 Nov 06 j 15:38	29°♊32°33	-2°-14'-22
conjunction	-1921 Feb 15 j 19:22	11°♊01°10	-1°-51'-10	min. Earth dist.		-1916 Nov 06 j 06:54	29°♊34°23	7.93060 AU
minimum elong	-1921 Feb 15 j 19:19	11°♊01°09	1°51'12	direct		-1915 Jan 12 j 00:50	26°♊03°05	
max. Earth dist.	-1921 Feb 15 j 16:29	11°♊00°15	10.25109 AU			-1915 Mar 21 j 01:22	0°♋	
morning rise	-1921 Mar 05 j 07:13	13°♊14°43		evening set		-1915 Apr 27 j 05:21	4°♋25°08	
	-1921 Mar 19 j 15:02	15°♊						
retrograde	-1921 Jun 20 j 14:58	21°♊27°14		conjunction		-1915 May 15 j 09:40	6°♋47°38	-1°-35'00
opposition	-1921 Aug 28 j 15:09	17°♊57°48	-2°-30'-16	minimum elong		-1915 May 15 j 09:44	6°♋47°39	1°34°59
min. Earth dist.	-1921 Aug 28 j 16:00	17°♊57°38	8.19024 AU	max. Earth dist.		-1915 May 15 j 22:09	6°♋51°45	9.94945 AU
	-1921 Oct 12 j 07:53	15°♋		morning rise		-1915 Jun 02 j 14:04	9°♋10°08	
direct	-1921 Nov 03 j 07:27	14°♋33°19				-1915 Jul 24 j 09:40	15°♋	
	-1921 Nov 25 j 02:45	15°♋		retrograde		-1915 Sep 15 j 14:30	17°♋30°32	
evening set	-1920 Feb 12 j 13:03	22°♋25°45				-1915 Nov 09 j 04:01	15°♋♋	
				opposition		-1915 Nov 21 j 01:30	14°♋01°25	-1°-41'-36
conjunction	-1920 Feb 29 j 23:47	24°♋40°30	-2°-8'-25	min. Earth dist.		-1915 Nov 20 j 15:29	14°♋03°30	7.97838 AU
minimum elong	-1920 Feb 29 j 23:45	24°♋40°30	2°08'27	direct		-1914 Jan 26 j 21:08	10°♋31°42	
max. Earth dist.	-1920 Feb 29 j 23:47	24°♋40°30	10.13190 AU			-1914 Apr 10 j 08:19	15°♋	
morning rise	-1920 Mar 18 j 15:18	26°♋56°51		evening set		-1914 May 12 j 14:25	18°♋51°37	
	-1920 Apr 12 j 20:13	0°♌						
retrograde	-1920 Jul 04 j 07:35	5°♌18°37		conjunction		-1914 May 30 j 19:30	21°♌13°13	-1°-6'-14
opposition	-1920 Sep 10 j 17:58	1°♌48°10	-2°-47'-53	minimum elong		-1914 May 30 j 19:33	21°♌13°15	1°06'13
min. Earth dist.	-1920 Sep 10 j 16:19	1°♌48°30	8.08099 AU	max. Earth dist.		-1914 May 31 j 09:09	21°♌17°41	10.01397 AU
	-1920 Oct 04 j 00:34	30°♌		morning rise		-1914 Jun 17 j 23:10	23°♌34°21	
direct	-1920 Nov 16 j 01:24	28°♌22°22				-1914 Aug 16 j 21:05	0°♍	
	-1920 Dec 28 j 03:32	0°♌		retrograde		-1914 Sep 29 j 20:36	1°♍45°02	
evening set	-1919 Feb 26 j 01:39	6°♌24°42				-1914 Nov 13 j 13:58	30°♌♋	
				opposition		-1914 Dec 05 j 06:41	28°♌17°17	-1°-3'-2
conjunction	-1919 Mar 15 j 16:21	8°♌42°07	-2°-18'-35	min. Earth dist.		-1914 Dec 04 j 20:03	28°♌19°29	8.05710 AU
minimum elong	-1919 Mar 15 j 16:20	8°♌42°07	2°18'36	direct		-1913 Feb 10 j 14:54	24°♌47°37	
max. Earth dist.	-1919 Mar 15 j 19:01	8°♌42°59	10.03320 AU			-1913 May 02 j 10:59	0°♍	
morning rise	-1919 Apr 02 j 11:31	11°♌00°59		evening set		-1913 May 27 j 17:34	3°♍02°51	
retrograde	-1919 Jul 19 j 04:56	19°♌29°27						
opposition	-1919 Sep 25 j 01:58	15°♌58°24	-2°-55'-47	conjunction		-1913 Jun 14 j 21:47	5°♍22°38	0°-33'-54
min. Earth dist.	-1919 Sep 24 j 22:16	15°♌59°09	7.99547 AU	minimum elong		-1913 Jun 14 j 21:48	5°♍22°39	0°33°53
direct	-1919 Nov 30 j 03:30	12°♌31°22		max. Earth dist.		-1913 Jun 15 j 11:29	5°♍27°03	10.10667 AU
evening set	-1918 Mar 13 j 00:23	20°♌42°18		morning rise		-1913 Jul 02 j 23:11	7°♍41°31	
				retrograde		-1913 Oct 13 j 18:17	15°♍41°00	
conjunction	-1918 Mar 30 j 19:09	23°♌02°00	-2°-20'-28	opposition		-1913 Dec 19 j 05:42	12°♍14°48	0°-21'-34
minimum elong	-1918 Mar 30 j 19:10	23°♌02°01	2°20'29	min. Earth dist.		-1913 Dec 18 j 19:48	12°♍16°49	8.16086 AU
max. Earth dist.	-1918 Mar 31 j 00:23	23°♌03°44	9.96157 AU	direct		-1912 Feb 25 j 04:02	8°♍45°26	
morning rise	-1918 Apr 17 j 17:45	25°♌22°56		evening set		-1912 Jun 10 j 12:15	16°♍54°04	
	-1918 May 26 j 16:23	0°♎						
retrograde	-1918 Aug 03 j 05:00	3°♎54°52		conjunction		-1912 Jun 28 j 13:53	19°♎11°19	0°00'-16
opposition	-1918 Oct 09 j 13:44	0°♎23°38	-2°-52'-49	minimum elong		-1912 Jun 28 j 13:53	19°♎11°19	0°00'15
min. Earth dist.	-1918 Oct 09 j 08:22	0°♎24°45	7.93954 AU	behind sun begin		-1912 Jun 28 j 06:38	19°♎09°01	
	-1918 Oct 14 j 07:34	30°♎♌		behind sun end		-1912 Jun 28 j 21:09	19°♎13°36	
direct	-1918 Dec 14 j 13:13	26°♎55°34		max. Earth dist.		-1912 Jun 29 j 01:59	19°♎15°09	10.22040 AU

## Planetary Phenomena of Saturn from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 41

Attention, astronomical year style is used: The year -1912 in astronomical counting style is the year 1913 BCE in historical counting style.

asc. node	-1912 Jul 01 j 16:18	19° $\Pi$ 35'01		minimum elong	-1906 Sep 13 j 13:30	4° $\eta$ 13'02	2°17'38
morning rise	-1912 Jul 16 j 11:40	21° $\Pi$ 27'19		max. Earth dist.	-1906 Sep 13 j 11:18	4° $\eta$ 12'23	10.96004 AU
retrograde	-1912 Oct 26 j 06:41	29° $\Pi$ 15'09		morning rise	-1906 Sep 30 j 05:35	6° $\eta$ 10'50	
opposition	-1912 Dec 31 j 21:54	25° $\Pi$ 50'38	0°19'58	retrograde	-1905 Jan 07 j 03:30	13° $\eta$ 08'44	
min. Earth dist.	-1912 Dec 31 j 13:45	25° $\Pi$ 52'17	8.28188 AU	opposition	-1905 Mar 17 j 06:47	9° $\eta$ 51'43	2°51'54
direct	-1911 Mar 10 j 11:26	22° $\Pi$ 21'52		min. Earth dist.	-1905 Mar 17 j 09:36	9° $\eta$ 51'12	9.00561 AU
	-1911 Jun 21 j 18:24	0° $\Theta$		direct	-1905 May 27 j 16:19	6° $\eta$ 29'34	
evening set	-1911 Jun 24 j 20:40	0° $\Theta$ 22'45		evening set	-1905 Sep 08 j 11:38	13° $\eta$ 42'08	
conjunction	-1911 Jul 12 j 18:17	2° $\Theta$ 36'56	0°32'35	conjunction	-1905 Sep 25 j 04:09	15° $\eta$ 39'11	2°22'24
minimum elong	-1911 Jul 12 j 18:15	2° $\Theta$ 36'55	0°32'36	minimum elong	-1905 Sep 25 j 04:09	15° $\eta$ 39'11	2°22'25
max. Earth dist.	-1911 Jul 13 j 03:40	2° $\Theta$ 39'52	10.34713 AU	max. Earth dist.	-1905 Sep 24 j 23:32	15° $\eta$ 37'49	11.04255 AU
morning rise	-1911 Jul 30 j 11:23	4° $\Theta$ 49'41		morning rise	-1905 Oct 11 j 17:12	17° $\eta$ 35'14	
retrograde	-1911 Nov 08 j 08:00	12° $\Theta$ 26'19		retrograde	-1904 Jan 18 j 17:01	24° $\eta$ 29'44	
opposition	-1910 Jan 14 j 07:03	9° $\Theta$ 03'32	0°59'11	opposition	-1904 Mar 28 j 07:15	21° $\eta$ 13'05	2°54'08
min. Earth dist.	-1910 Jan 14 j 00:46	9° $\Theta$ 04'48	8.41264 AU	min. Earth dist.	-1904 Mar 28 j 11:15	21° $\eta$ 12'21	9.07763 AU
direct	-1910 Mar 24 j 12:55	5° $\Theta$ 35'39		direct	-1904 Jun 07 j 21:45	17° $\eta$ 51'58	
evening set	-1910 Jul 08 j 17:58	13° $\Theta$ 28'09		evening set	-1904 Sep 18 j 23:14	24° $\eta$ 58'49	
conjunction	-1910 Jul 26 j 10:39	15° $\Theta$ 39'00	1°02'52	conjunction	-1904 Oct 05 j 13:05	26° $\eta$ 54'28	2°21'36
minimum elong	-1910 Jul 26 j 10:37	15° $\Theta$ 38'59	1°02'54	minimum elong	-1904 Oct 05 j 13:05	26° $\eta$ 54'28	2°21'36
max. Earth dist.	-1910 Jul 26 j 17:11	15° $\Theta$ 41'02	10.48013 AU	max. Earth dist.	-1904 Oct 05 j 07:27	26° $\eta$ 52'49	11.10306 AU
morning rise	-1910 Aug 12 j 22:30	17° $\Theta$ 48'20		morning rise	-1904 Oct 21 j 23:57	28° $\eta$ 49'18	
retrograde	-1910 Nov 21 j 01:00	25° $\Theta$ 14'42			-1904 Nov 01 j 11:03	0° $\underline{\Delta}$	
opposition	-1909 Jan 27 j 09:08	21° $\Theta$ 53'31	1°34'11	retrograde	-1903 Jan 29 j 06:28	5° $\underline{\Delta}$ 41'58	
min. Earth dist.	-1909 Jan 27 j 04:15	21° $\Theta$ 54'28	8.54692 AU	opposition	-1903 Apr 09 j 05:37	2° $\underline{\Delta}$ 25'26	2°49'42
direct	-1909 Apr 07 j 05:53	18° $\Theta$ 26'40		min. Earth dist.	-1903 Apr 09 j 10:37	2° $\underline{\Delta}$ 24'31	9.12637 AU
evening set	-1909 Jul 22 j 03:48	26° $\Theta$ 10'29			-1903 May 16 j 03:57	30° $\mathbb{R}$ $\eta$	
				direct	-1903 Jun 19 j 20:00	29° $\eta$ 05'16	
conjunction	-1909 Aug 08 j 15:10	28° $\Theta$ 18'01	1°29'17		-1903 Jul 23 j 21:47	0° $\underline{\Delta}$	
minimum elong	-1909 Aug 08 j 15:07	28° $\Theta$ 18'00	1°29'19	evening set	-1903 Sep 30 j 05:44	6° $\underline{\Delta}$ 07'32	
max. Earth dist.	-1909 Aug 08 j 19:23	28° $\Theta$ 19'18	10.61350 AU				
	-1909 Aug 22 j 13:43	0° $\Omega$		conjunction	-1903 Oct 16 j 17:47	8° $\underline{\Delta}$ 02'20	2°15'26
morning rise	-1909 Aug 25 j 21:29	0° $\Omega$ 23'59		minimum elong	-1903 Oct 16 j 17:49	8° $\underline{\Delta}$ 02'20	2°15'24
retrograde	-1909 Dec 03 j 11:13	7° $\Omega$ 41'11		max. Earth dist.	-1903 Oct 16 j 11:04	8° $\underline{\Delta}$ 00'22	11.13960 AU
opposition	-1908 Feb 09 j 04:41	4° $\Omega$ 21'23	2°03'37	morning rise	-1903 Nov 02 j 03:33	9° $\underline{\Delta}$ 56'33	
min. Earth dist.	-1908 Feb 09 j 01:00	4° $\Omega$ 22'06	8.67868 AU	retrograde	-1902 Feb 09 j 18:28	16° $\underline{\Delta}$ 48'58	
direct	-1908 Apr 19 j 13:59	0° $\Omega$ 55'43		opposition	-1902 Apr 21 j 02:49	13° $\underline{\Delta}$ 32'17	2°38'58
evening set	-1908 Aug 03 j 02:32	8° $\Omega$ 30'54		min. Earth dist.	-1902 Apr 21 j 09:38	13° $\underline{\Delta}$ 31'02	9.15029 AU
				direct	-1902 Jul 01 j 14:23	10° $\underline{\Delta}$ 12'54	
conjunction	-1908 Aug 20 j 08:32	10° $\Omega$ 35'15	1°50'52	evening set	-1902 Oct 11 j 09:10	17° $\underline{\Delta}$ 11'57	
minimum elong	-1908 Aug 20 j 08:29	10° $\Omega$ 35'14	1°50'54				
max. Earth dist.	-1908 Aug 20 j 11:13	10° $\Omega$ 36'04	10.74134 AU	conjunction	-1902 Oct 27 j 20:11	19° $\underline{\Delta}$ 06'25	2°04'12
morning rise	-1908 Sep 06 j 09:21	12° $\Omega$ 38'05		minimum elong	-1902 Oct 27 j 20:14	19° $\underline{\Delta}$ 06'26	2°04'11
	-1908 Sep 27 j 04:37	15° $\Omega$		max. Earth dist.	-1902 Oct 27 j 11:14	19° $\underline{\Delta}$ 03'48	11.15103 AU
retrograde	-1908 Dec 14 j 14:00	19° $\Omega$ 47'24		morning rise	-1902 Nov 13 j 06:00	21° $\underline{\Delta}$ 00'34	
opposition	-1907 Feb 20 j 18:18	16° $\Omega$ 28'48	2°26'37	retrograde	-1901 Feb 21 j 08:32	27° $\underline{\Delta}$ 54'18	
min. Earth dist.	-1907 Feb 20 j 16:31	16° $\Omega$ 29'08	8.80226 AU	opposition	-1901 May 02 j 23:48	24° $\underline{\Delta}$ 37'15	2°22'22
	-1907 Mar 12 j 19:50	15° $\mathbb{R}$ $\Omega$		min. Earth dist.	-1901 May 03 j 08:12	24° $\underline{\Delta}$ 35'43	9.14863 AU
direct	-1907 May 02 j 14:12	13° $\Omega$ 04'20		direct	-1901 Jul 13 j 07:19	21° $\underline{\Delta}$ 18'28	
	-1907 Jun 21 j 06:03	15° $\Omega$		evening set	-1901 Oct 22 j 11:07	28° $\underline{\Delta}$ 15'42	
evening set	-1907 Aug 15 j 14:43	20° $\Omega$ 31'16			-1901 Nov 06 j 10:36	0° $\mathbb{M}$	
conjunction	-1907 Sep 01 j 15:35	22° $\Omega$ 32'44	2°07'04	conjunction	-1901 Nov 07 j 22:03	0° $\mathbb{M}$ 10'22	1°48'19
minimum elong	-1907 Sep 01 j 15:33	22° $\Omega$ 32'43	2°07'06	minimum elong	-1901 Nov 07 j 22:06	0° $\mathbb{M}$ 10'23	1°48'18
max. Earth dist.	-1907 Sep 01 j 16:15	22° $\Omega$ 32'56	10.85837 AU	max. Earth dist.	-1901 Nov 07 j 11:58	0° $\mathbb{M}$ 07'25	11.13696 AU
morning rise	-1907 Sep 18 j 11:33	24° $\Omega$ 32'48		morning rise	-1901 Nov 24 j 08:44	2° $\mathbb{M}$ 05'00	
	-1907 Nov 12 j 20:02	0° $\eta$		retrograde	-1900 Mar 04 j 00:13	9° $\mathbb{M}$ 01'40	
retrograde	-1907 Dec 26 j 11:50	1° $\eta$ 35'40		opposition	-1900 May 13 j 22:04	5° $\mathbb{M}$ 43'59	2°00'25
	-1906 Feb 09 j 10:47	30° $\mathbb{R}$ $\Omega$		min. Earth dist.	-1900 May 14 j 06:50	5° $\mathbb{M}$ 42'23	9.12138 AU
opposition	-1906 Mar 05 j 02:47	28° $\Omega$ 18'00	2°42'45	direct	-1900 Jul 23 j 22:42	2° $\mathbb{M}$ 25'37	
min. Earth dist.	-1906 Mar 05 j 03:28	28° $\Omega$ 17'52	8.91268 AU	evening set	-1900 Nov 01 j 13:17	9° $\mathbb{M}$ 22'29	
direct	-1906 May 15 j 06:39	24° $\Omega$ 54'43					
	-1906 Aug 07 j 17:15	0° $\eta$		conjunction	-1900 Nov 18 j 01:02	11° $\mathbb{M}$ 17'51	1°28'16
evening set	-1906 Aug 27 j 17:15	2° $\eta$ 14'01		minimum elong	-1900 Nov 18 j 01:05	11° $\mathbb{M}$ 17'52	1°28'15
				max. Earth dist.	-1900 Nov 17 j 15:17	11° $\mathbb{M}$ 14'59	11.09767 AU
conjunction	-1906 Sep 13 j 13:31	4° $\eta$ 13'03	2°17'36	morning rise	-1900 Dec 04 j 13:10	13° $\mathbb{M}$ 13'25	





## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 1

Attention, astronomical year style is used: The year -1900 in astronomical counting style is the year 1901 BCE in historical counting style.

retrograde	-1900 Mar 04 j 00:13	9°♄01'40		conjunction	-1894 Jan 14 j 23:09	9°♄51'04	0°-49'-28
opposition	-1900 May 13 j 22:04	5°♄43'59	2°00'25	minimum elong	-1894 Jan 14 j 23:07	9°♄51'04	0°49'31
min. Earth dist.	-1900 May 14 j 06:50	5°♄42'23	9.12138 AU	max. Earth dist.	-1894 Jan 14 j 16:07	9°♄48'54	10.59786 AU
direct	-1900 Jul 23 j 22:42	2°♄25'37		morning rise	-1894 Feb 01 j 02:04	11°♄57'16	
evening set	-1900 Nov 01 j 13:17	9°♄22'29		retrograde	-1894 May 17 j 18:04	19°♄41'59	
				opposition	-1894 Jul 26 j 23:05	16°♄16'40	-1°-18'-57
conjunction	-1900 Nov 18 j 01:02	11°♄17'51	1°28'16	min. Earth dist.	-1894 Jul 27 j 03:57	16°♄15'44	8.53080 AU
minimum elong	-1900 Nov 18 j 01:05	11°♄17'52	1°28'15	direct	-1894 Oct 02 j 22:14	12°♄55'54	
max. Earth dist.	-1900 Nov 17 j 15:17	11°♄14'59	11.09767 AU	evening set	-1893 Jan 10 j 19:24	20°♄22'51	
morning rise	-1900 Dec 04 j 13:10	13°♄13'25					
	-1900 Dec 20 j 10:57	15°♄		conjunction	-1893 Jan 27 j 21:05	22°♄30'20	-1°-17'-16
retrograde	-1899 Mar 15 j 22:47	20°♄14'40		minimum elong	-1893 Jan 27 j 21:02	22°♄30'19	1°17'19
opposition	-1899 May 25 j 22:39	16°♄56'07	1°33'44	max. Earth dist.	-1893 Jan 27 j 15:00	22°♄28'26	10.46408 AU
min. Earth dist.	-1899 May 26 j 07:05	16°♄54'34	9.06937 AU	morning rise	-1893 Feb 14 j 03:35	24°♄39'22	
	-1899 Jun 23 j 01:33	15°♄			-1893 Apr 04 j 18:56	0°≈	
direct	-1899 Aug 04 j 15:11	13°♄37'58		retrograde	-1893 May 31 j 14:54	2°≈35'15	
	-1899 Sep 14 j 20:46	15°♄			-1893 Jul 29 j 07:16	30°♄	
evening set	-1899 Nov 12 j 17:58	20°♄35'57		opposition	-1893 Aug 09 j 08:46	29°♄08'26	-1°-51'-53
				min. Earth dist.	-1893 Aug 09 j 12:23	29°♄07'43	8.39715 AU
conjunction	-1899 Nov 29 j 07:03	22°♄32'29	1°04'38	direct	-1893 Oct 15 j 17:37	25°♄46'28	
minimum elong	-1899 Nov 29 j 07:05	22°♄32'30	1°04'36		-1893 Dec 26 j 02:47	0°≈	
max. Earth dist.	-1899 Nov 28 j 20:56	22°♄29'30	11.03440 AU	evening set	-1892 Jan 24 j 02:02	3°≈23'02	
morning rise	-1899 Dec 15 j 21:23	24°♄29'30					
	-1898 Feb 10 j 18:14	0°♄		conjunction	-1892 Feb 10 j 07:02	5°≈33'20	-1°-41'-54
retrograde	-1898 Mar 28 j 02:08	1°♄36'47		minimum elong	-1892 Feb 10 j 06:59	5°≈33'19	1°41'56
	-1898 May 13 j 17:40	30°♄		max. Earth dist.	-1892 Feb 10 j 02:12	5°≈31'48	10.33124 AU
opposition	-1898 Jun 07 j 02:30	28°♄17'11	1°03'01	morning rise	-1892 Feb 27 j 17:14	7°≈45'16	
min. Earth dist.	-1898 Jun 07 j 11:17	28°♄15'33	8.99438 AU		-1892 May 12 j 20:45	15°≈	
direct	-1898 Aug 16 j 06:31	24°♄58'59		retrograde	-1892 Jun 13 j 19:46	15°≈52'05	
	-1898 Nov 06 j 09:48	0°♄			-1892 Jul 15 j 23:04	15°♄	
evening set	-1898 Nov 24 j 02:53	1°♄59'44		opposition	-1892 Aug 22 j 01:33	12°≈23'53	-2°-20'00
				min. Earth dist.	-1892 Aug 22 j 04:07	12°≈23'22	8.26765 AU
conjunction	-1898 Dec 10 j 17:42	3°♄57'49	0°38'07	direct	-1892 Oct 27 j 22:18	9°≈00'35	
minimum elong	-1898 Dec 10 j 17:43	3°♄57'50	0°38'04		-1891 Jan 22 j 07:07	15°≈	
max. Earth dist.	-1898 Dec 10 j 06:51	3°♄54'36	10.94935 AU	evening set	-1891 Feb 05 j 20:48	16°≈47'25	
morning rise	-1898 Dec 27 j 10:52	5°♄56'40					
retrograde	-1897 Apr 09 j 10:36	13°♄11'31		conjunction	-1891 Feb 23 j 05:33	19°≈00'35	-2°-1'-42
opposition	-1897 Jun 19 j 10:55	9°♄50'40	0°29'11	minimum elong	-1891 Feb 23 j 05:31	19°≈00'34	2°01'44
min. Earth dist.	-1897 Jun 19 j 19:56	9°♄48'59	8.89908 AU	max. Earth dist.	-1891 Feb 23 j 03:04	18°≈59'47	10.20576 AU
direct	-1897 Aug 28 j 03:01	6°♄32'10		morning rise	-1891 Mar 12 j 19:26	21°≈15'23	
evening set	-1897 Dec 05 j 17:39	13°♄37'16		retrograde	-1891 Jun 28 j 07:50	29°≈32'09	
				opposition	-1891 Sep 05 j 01:02	26°≈02'47	-2°-41'-10
conjunction	-1897 Dec 22 j 10:43	15°♄37'18	0°09'35	min. Earth dist.	-1891 Sep 05 j 01:45	26°≈02'38	8.14932 AU
minimum elong	-1897 Dec 22 j 10:43	15°♄37'18	0°09'32	direct	-1891 Nov 10 j 12:54	22°≈38'08	
behind sun begin	-1897 Dec 22 j 04:52	15°♄35'33			-1890 Feb 15 j 12:34	0°♄	
behind sun end	-1897 Dec 22 j 16:34	15°♄39'03		evening set	-1890 Feb 20 j 03:40	0°♄35'09	
max. Earth dist.	-1897 Dec 22 j 00:26	15°♄34'13	10.84551 AU				
morning rise	-1896 Jan 08 j 06:59	17°♄38'19		conjunction	-1890 Mar 09 j 16:26	2°♄51'06	-2°-15'-3
retrograde	-1896 Apr 21 j 04:11	25°♄02'08		minimum elong	-1890 Mar 09 j 16:24	2°♄51'05	2°15'05
desc. node	-1896 Apr 22 j 12:26	25°♄02'02		max. Earth dist.	-1890 Mar 09 j 17:01	2°♄51'17	10.09542 AU
opposition	-1896 Jul 01 j 00:43	21°♄39'53	0°-6'-41	morning rise	-1890 Mar 27 j 09:51	5°♄08'33	
min. Earth dist.	-1896 Jul 01 j 08:59	21°♄38'19	8.78703 AU	retrograde	-1890 Jul 13 j 02:04	13°♄33'18	
direct	-1896 Sep 08 j 04:04	18°♄20'51		opposition	-1890 Sep 19 j 06:13	10°♄03'02	-2°-53'-26
evening set	-1896 Dec 16 j 16:20	25°♄31'49		min. Earth dist.	-1890 Sep 19 j 04:29	10°♄03'24	8.05012 AU
				direct	-1890 Nov 24 j 10:55	6°♄37'03	
conjunction	-1895 Jan 02 j 12:07	27°♄34'07	0°-20'-4	evening set	-1889 Mar 06 j 21:22	14°♄43'19	
minimum elong	-1895 Jan 02 j 12:06	27°♄34'06	0°20'07				
max. Earth dist.	-1895 Jan 02 j 03:39	27°♄31'32	10.72678 AU	conjunction	-1889 Mar 24 j 14:16	17°♄01'46	-2°-20'-38
morning rise	-1895 Jan 19 j 11:36	29°♄37'37		minimum elong	-1889 Mar 24 j 14:17	17°♄01'46	2°20'39
	-1895 Jan 22 j 14:55	0°♄		max. Earth dist.	-1889 Mar 24 j 18:17	17°♄03'05	10.00817 AU
retrograde	-1895 May 04 j 06:24	7°♄11'29		morning rise	-1889 Apr 11 j 11:08	19°♄21'32	
opposition	-1895 Jul 13 j 20:30	3°♄47'43	0°-43'-16	retrograde	-1889 Jul 28 j 01:00	27°♄51'21	
min. Earth dist.	-1895 Jul 14 j 03:01	3°♄46'29	8.66261 AU	opposition	-1889 Oct 03 j 15:50	24°♄20'32	-2°-55'-20
direct	-1895 Sep 20 j 09:41	0°♄27'56		min. Earth dist.	-1889 Oct 03 j 11:28	24°♄21'26	7.97720 AU
evening set	-1895 Dec 29 j 00:28	7°♄46'16		direct	-1889 Dec 08 j 16:27	20°♄53'16	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 2

Attention, astronomical year style is used: The year -1888 in astronomical counting style is the year 1889 BCE in historical counting style.

evening set	-1888 Mar 20 j 23:47	29° <del>✕</del> 07'02		evening set	-1882 Jun 18 j 21:13	24° <del>Π</del> 39'06	
	-1888 Mar 27 j 18:37	0° <del>Υ</del>					
conjunction	-1888 Apr 07 j 20:46	1° <del>Υ</del> 27'32	-2°-17'-36	conjunction	-1882 Jul 06 j 20:55	26° <del>Π</del> 54'47	0°18'00
minimum elong	-1888 Apr 07 j 20:48	1° <del>Υ</del> 27'32	2°17'37	minimum elong	-1882 Jul 06 j 20:54	26° <del>Π</del> 54'47	0°18'02
max. Earth dist.	-1888 Apr 08 j 03:52	1° <del>Υ</del> 29'52	9.95035 AU	max. Earth dist.	-1882 Jul 07 j 07:21	26° <del>Π</del> 58'05	10.27842 AU
morning rise	-1888 Apr 25 j 20:48	3° <del>Υ</del> 49'03		morning rise	-1882 Jul 24 j 16:24	29° <del>Π</del> 09'09	
retrograde	-1888 Aug 11 j 00:50	12° <del>Υ</del> 20'23			-1882 Jul 31 j 14:22	0° <del>☾</del>	
opposition	-1888 Oct 17 j 03:55	8° <del>Υ</del> 49'27	-2°-46'-9	retrograde	-1882 Nov 02 j 21:16	6° <del>☾</del> 50'57	
min. Earth dist.	-1888 Oct 16 j 21:27	8° <del>Υ</del> 50'48	7.93570 AU	opposition	-1881 Jan 08 j 17:56	3° <del>☾</del> 26'51	0°41'55
direct	-1888 Dec 22 j 04:46	5° <del>Υ</del> 21'03		min. Earth dist.	-1881 Jan 08 j 09:45	3° <del>☾</del> 28'29	8.34246 AU
evening set	-1887 Apr 05 j 08:17	13° <del>Υ</del> 39'57			-1881 Mar 12 j 14:30	30° <del>℞</del> <del>Π</del>	
				direct	-1881 Mar 18 j 17:59	29° <del>Π</del> 58'02	
					-1881 Mar 24 j 20:37	0° <del>☾</del>	
conjunction	-1887 Apr 23 j 08:52	16° <del>Υ</del> 01'49	-2°-5'-50	evening set	-1881 Jul 02 j 23:17	7° <del>☾</del> 54'24	
minimum elong	-1887 Apr 23 j 08:56	16° <del>Υ</del> 01'50	2°05'50				
max. Earth dist.	-1887 Apr 23 j 18:11	16° <del>Υ</del> 04'54	9.92604 AU	conjunction	-1881 Jul 20 j 18:33	10° <del>☾</del> 06'53	0°49'36
morning rise	-1887 May 11 j 11:25	18° <del>Υ</del> 24'20		minimum elong	-1881 Jul 20 j 18:31	10° <del>☾</del> 06'52	0°49'37
retrograde	-1887 Aug 25 j 22:23	26° <del>Υ</del> 53'24		max. Earth dist.	-1881 Jul 21 j 03:43	10° <del>☾</del> 09'44	10.40997 AU
opposition	-1887 Oct 31 j 16:14	23° <del>Υ</del> 22'49	-2°-26'-15	morning rise	-1881 Aug 07 j 08:51	12° <del>☾</del> 17'50	
min. Earth dist.	-1887 Oct 31 j 08:33	23° <del>Υ</del> 24'25	7.92854 AU	retrograde	-1881 Nov 15 j 19:01	19° <del>☾</del> 48'47	
direct	-1886 Jan 05 j 22:01	19° <del>Υ</del> 53'32		opposition	-1880 Jan 21 j 22:45	16° <del>☾</del> 26'22	1°18'59
evening set	-1886 Apr 20 j 19:13	28° <del>Υ</del> 14'45		min. Earth dist.	-1880 Jan 21 j 16:11	16° <del>☾</del> 27'40	8.47742 AU
	-1886 May 04 j 05:40	0° <del>♄</del>		direct	-1880 Mar 31 j 12:50	12° <del>☾</del> 58'33	
				evening set	-1880 Jul 15 j 14:05	20° <del>☾</del> 46'14	
conjunction	-1886 May 08 j 22:32	0° <del>♄</del> 37'09	-1°-46'-2				
minimum elong	-1886 May 08 j 22:36	0° <del>♄</del> 37'11	1°46'01	conjunction	-1880 Aug 02 j 04:05	22° <del>☾</del> 55'20	1°17'52
max. Earth dist.	-1886 May 09 j 09:21	0° <del>♄</del> 40'43	9.93690 AU	minimum elong	-1880 Aug 02 j 04:02	22° <del>☾</del> 55'19	1°17'53
morning rise	-1886 May 27 j 02:34	2° <del>♄</del> 59'47		max. Earth dist.	-1880 Aug 02 j 11:06	22° <del>☾</del> 57'29	10.54617 AU
retrograde	-1886 Sep 09 j 14:37	11° <del>♄</del> 23'08		morning rise	-1880 Aug 19 j 12:50	25° <del>☾</del> 02'50	
opposition	-1886 Nov 15 j 02:51	7° <del>♄</del> 53'18	-1°-57'-3		-1880 Oct 05 j 04:32	0° <del>♏</del>	
min. Earth dist.	-1886 Nov 14 j 18:27	7° <del>♄</del> 55'04	7.95617 AU	retrograde	-1880 Nov 27 j 07:59	2° <del>♏</del> 23'55	
direct	-1885 Jan 20 j 17:30	4° <del>♄</del> 23'26			-1879 Jan 21 j 13:15	30° <del>℞</del> <del>☾</del>	
evening set	-1885 May 06 j 04:53	12° <del>♄</del> 44'00		opposition	-1879 Feb 02 j 20:56	29° <del>☾</del> 03'06	1°51'02
	-1885 May 23 j 15:16	15° <del>♄</del>		min. Earth dist.	-1879 Feb 02 j 16:34	29° <del>☾</del> 03'57	8.61387 AU
				direct	-1879 Apr 13 j 23:56	25° <del>☾</del> 36'31	
conjunction	-1885 May 24 j 09:41	15° <del>♄</del> 06'02	-1°-19'-39		-1879 Jun 29 j 15:55	0° <del>♏</del>	
minimum elong	-1885 May 24 j 09:45	15° <del>♄</del> 06'03	1°19'38	evening set	-1879 Jul 28 j 17:24	3° <del>♏</del> 15'26	
max. Earth dist.	-1885 May 24 j 21:15	15° <del>♄</del> 09'49	9.98191 AU				
morning rise	-1885 Jun 11 j 13:54	17° <del>♄</del> 27'48		conjunction	-1879 Aug 15 j 01:47	5° <del>♏</del> 21'11	1°41'42
retrograde	-1885 Sep 23 j 23:11	25° <del>♄</del> 42'40		minimum elong	-1879 Aug 15 j 01:44	5° <del>♏</del> 21'10	1°41'43
opposition	-1885 Nov 29 j 09:38	22° <del>♄</del> 13'58	-1°-20'-50	max. Earth dist.	-1879 Aug 15 j 05:49	5° <del>♏</del> 22'25	10.68035 AU
min. Earth dist.	-1885 Nov 29 j 00:59	22° <del>♄</del> 15'45	8.01644 AU	morning rise	-1879 Sep 01 j 05:07	7° <del>♏</del> 25'25	
direct	-1884 Feb 04 j 12:10	18° <del>♄</del> 43'49		retrograde	-1879 Dec 09 j 12:09	14° <del>♏</del> 37'57	
evening set	-1884 May 20 j 10:21	27° <del>♄</del> 01'06		opposition	-1878 Feb 15 j 12:50	11° <del>♏</del> 18'35	2°16'58
				min. Earth dist.	-1878 Feb 15 j 10:08	11° <del>♏</del> 19'06	8.74531 AU
conjunction	-1884 Jun 07 j 15:04	29° <del>♄</del> 21'48	0°-48'-42	direct	-1878 Apr 27 j 04:11	7° <del>♏</del> 53'20	
minimum elong	-1884 Jun 07 j 15:06	29° <del>♄</del> 21'49	0°48'41		-1878 Aug 07 j 00:40	15° <del>♏</del>	
max. Earth dist.	-1884 Jun 08 j 02:30	29° <del>♄</del> 25'31	10.05760 AU	evening set	-1878 Aug 10 j 09:54	15° <del>♏</del> 23'46	
	-1884 Jun 12 j 12:54	0° <del>♐</del>					
morning rise	-1884 Jun 25 j 17:51	1° <del>♐</del> 41'48		conjunction	-1878 Aug 27 j 12:58	17° <del>♏</del> 26'28	2°00'21
retrograde	-1884 Oct 06 j 23:48	9° <del>♐</del> 46'16		minimum elong	-1878 Aug 27 j 12:55	17° <del>♏</del> 26'27	2°00'23
opposition	-1884 Dec 12 j 10:55	6° <del>♐</del> 18'57	0°-40'-22	max. Earth dist.	-1878 Aug 27 j 14:31	17° <del>♏</del> 26'56	10.80653 AU
min. Earth dist.	-1884 Dec 12 j 02:10	6° <del>♐</del> 20'45	8.10499 AU	morning rise	-1878 Sep 13 j 11:16	19° <del>♏</del> 27'44	
direct	-1883 Feb 18 j 03:47	2° <del>♐</del> 48'55		retrograde	-1878 Dec 21 j 11:57	26° <del>♏</del> 33'08	
evening set	-1883 Jun 04 j 08:36	11° <del>♐</del> 00'42		opposition	-1877 Feb 27 j 22:59	23° <del>♏</del> 14'59	2°36'12
				min. Earth dist.	-1877 Feb 27 j 21:38	23° <del>♏</del> 15'14	8.86595 AU
conjunction	-1883 Jun 22 j 11:33	13° <del>♐</del> 19'13	0°-15'-26	direct	-1877 May 10 j 00:38	19° <del>♏</del> 51'07	
minimum elong	-1883 Jun 22 j 11:33	13° <del>♐</del> 19'13	0°15'25	evening set	-1877 Aug 22 j 16:29	27° <del>♏</del> 13'37	
behind sun begin	-1883 Jun 22 j 09:58	13° <del>♐</del> 18'43					
behind sun end	-1883 Jun 22 j 13:09	13° <del>♐</del> 19'44		conjunction	-1877 Sep 08 j 14:51	29° <del>♏</del> 13'40	2°13'27
max. Earth dist.	-1883 Jun 22 j 22:30	13° <del>♐</del> 22'43	10.15861 AU	minimum elong	-1877 Sep 08 j 14:49	29° <del>♏</del> 13'39	2°13'29
morning rise	-1883 Jul 10 j 11:20	15° <del>♐</del> 36'41		max. Earth dist.	-1877 Sep 08 j 14:45	29° <del>♏</del> 13'38	10.91936 AU
retrograde	-1883 Oct 20 j 15:24	23° <del>♐</del> 29'50			-1877 Sep 15 j 02:41	0° <del>♐</del>	
asc. node	-1883 Dec 13 j 11:07	21° <del>♐</del> 05'34		morning rise	-1877 Sep 25 j 08:39	1° <del>♐</del> 12'23	
opposition	-1883 Dec 26 j 05:56	20° <del>♐</del> 04'05	0°01'24	retrograde	-1876 Jan 02 j 07:07	8° <del>♐</del> 12'09	
min. Earth dist.	-1883 Dec 25 j 21:05	20° <del>♐</del> 05'53	8.21593 AU	opposition	-1876 Mar 11 j 04:40	4° <del>♐</del> 54'57	2°48'28
direct	-1882 Mar 04 j 14:12	16° <del>♐</del> 34'31		min. Earth dist.	-1876 Mar 11 j 04:56	4° <del>♐</del> 54'54	8.97081 AU

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), AstroDienst AG 7-Dez-2017 14:43, page 3

Attention, astronomical year style is used: The year -1876 in astronomical counting style is the year 1877 BCE in historical counting style.

direct	-1876 May 21 j 12:20	1° $\mathring{M}$ 32'28		min. Earth dist.	-1870 May 21 j 08:46	12° $\mathring{M}$ 06'42	9.10336 AU
evening set	-1876 Sep 02 j 14:24	8° $\mathring{M}$ 47'48		direct	-1870 Jul 30 j 17:54	8° $\mathring{M}$ 50'42	
					-1870 Nov 01 j 02:26	15° $\mathring{M}$	
conjunction	-1876 Sep 19 j 08:41	10° $\mathring{M}$ 45'39	2°20'49	evening set	-1870 Nov 08 j 03:19	15° $\mathring{M}$ 48'04	
minimum elong	-1876 Sep 19 j 08:40	10° $\mathring{M}$ 45'38	2°20'50				
max. Earth dist.	-1876 Sep 19 j 06:58	10° $\mathring{M}$ 45'08	11.01440 AU	conjunction	-1870 Nov 24 j 15:36	17° $\mathring{M}$ 44'00	1°15'34
morning rise	-1876 Oct 05 j 22:50	12° $\mathring{M}$ 42'21		minimum elong	-1870 Nov 24 j 15:38	17° $\mathring{M}$ 44'01	1°15'32
retrograde	-1875 Jan 12 j 22:32	19° $\mathring{M}$ 38'01		max. Earth dist.	-1870 Nov 24 j 03:23	17° $\mathring{M}$ 40'24	11.07112 AU
opposition	-1875 Mar 23 j 06:47	16° $\mathring{M}$ 21'31	2°53'47	morning rise	-1870 Dec 11 j 04:59	19° $\mathring{M}$ 40'18	
min. Earth dist.	-1875 Mar 23 j 09:31	16° $\mathring{M}$ 21'01	9.05599 AU	retrograde	-1869 Mar 22 j 23:59	26° $\mathring{M}$ 44'43	
direct	-1875 Jun 02 j 18:29	13° $\mathring{M}$ 00'17		opposition	-1869 Jun 02 j 00:50	23° $\mathring{M}$ 25'54	1°17'10
evening set	-1875 Sep 14 j 05:08	20° $\mathring{M}$ 09'25		min. Earth dist.	-1869 Jun 02 j 11:21	23° $\mathring{M}$ 23'58	9.03375 AU
				direct	-1869 Aug 11 j 10:36	20° $\mathring{M}$ 07'55	
conjunction	-1875 Sep 30 j 20:04	22° $\mathring{M}$ 05'34	2°22'31	evening set	-1869 Nov 19 j 10:17	27° $\mathring{M}$ 07'26	
minimum elong	-1875 Sep 30 j 20:04	22° $\mathring{M}$ 05'34	2°22'31				
max. Earth dist.	-1875 Sep 30 j 15:34	22° $\mathring{M}$ 04'15	11.08831 AU	conjunction	-1869 Dec 06 j 00:19	29° $\mathring{M}$ 04'48	0°50'16
morning rise	-1875 Oct 17 j 07:47	24° $\mathring{M}$ 00'49		minimum elong	-1869 Dec 06 j 00:21	29° $\mathring{M}$ 04'48	0°50'13
	-1875 Dec 22 j 10:15	0° $\mathring{A}$		max. Earth dist.	-1869 Dec 05 j 12:47	29° $\mathring{M}$ 01'23	10.99058 AU
retrograde	-1874 Jan 24 j 11:15	0° $\mathring{A}$ 53'54			-1869 Dec 13 j 18:15	0° $\mathring{A}$	
	-1874 Feb 27 j 05:39	30° $\mathring{R}$ $\mathring{M}$		morning rise	-1869 Dec 22 j 16:06	1° $\mathring{A}$ 02'47	
opposition	-1874 Apr 04 j 06:08	27° $\mathring{M}$ 37'47	2°52'18	retrograde	-1868 Apr 03 j 07:07	8° $\mathring{A}$ 14'15	
min. Earth dist.	-1874 Apr 04 j 11:04	27° $\mathring{M}$ 36'52	9.11846 AU	opposition	-1868 Jun 13 j 07:24	4° $\mathring{A}$ 54'04	0°44'37
direct	-1874 Jun 14 j 19:05	24° $\mathring{M}$ 17'38		min. Earth dist.	-1868 Jun 13 j 17:05	4° $\mathring{A}$ 52'16	8.94205 AU
	-1874 Sep 13 j 09:56	0° $\mathring{A}$		direct	-1868 Aug 22 j 06:22	1° $\mathring{A}$ 35'44	
evening set	-1874 Sep 25 j 14:01	1° $\mathring{A}$ 21'40		evening set	-1868 Nov 29 j 22:20	8° $\mathring{A}$ 38'55	
conjunction	-1874 Oct 12 j 02:39	3° $\mathring{A}$ 16'41	2°18'44	conjunction	-1868 Dec 16 j 14:29	10° $\mathring{A}$ 38'08	0°22'31
minimum elong	-1874 Oct 12 j 02:40	3° $\mathring{A}$ 16'42	2°18'43	minimum elong	-1868 Dec 16 j 14:30	10° $\mathring{A}$ 38'08	0°22'28
max. Earth dist.	-1874 Oct 11 j 19:48	3° $\mathring{A}$ 14'41	11.13840 AU	max. Earth dist.	-1868 Dec 16 j 03:27	10° $\mathring{A}$ 34'50	10.88951 AU
morning rise	-1874 Oct 28 j 12:57	5° $\mathring{A}$ 11'03		morning rise	-1867 Jan 02 j 09:12	12° $\mathring{A}$ 38'11	
retrograde	-1873 Feb 04 j 23:03	12° $\mathring{A}$ 03'08		retrograde	-1867 Apr 15 j 22:03	19° $\mathring{A}$ 58'06	
opposition	-1873 Apr 16 j 03:45	8° $\mathring{A}$ 47'03	2°44'21	opposition	-1867 Jun 25 j 18:54	16° $\mathring{A}$ 36'23	0°09'31
min. Earth dist.	-1873 Apr 16 j 09:57	8° $\mathring{A}$ 45'55	9.15567 AU	min. Earth dist.	-1867 Jun 26 j 03:52	16° $\mathring{A}$ 34'42	8.83180 AU
direct	-1873 Jun 26 j 16:59	5° $\mathring{A}$ 27'48		direct	-1867 Sep 03 j 04:01	13° $\mathring{A}$ 17'26	
evening set	-1873 Oct 06 j 18:50	12° $\mathring{A}$ 28'00		desc. node	-1867 Oct 03 j 05:43	14° $\mathring{A}$ 03'27	
				evening set	-1867 Dec 11 j 17:33	20° $\mathring{A}$ 25'55	
conjunction	-1873 Oct 23 j 06:13	14° $\mathring{A}$ 22'26	2°09'44				
minimum elong	-1873 Oct 23 j 06:15	14° $\mathring{A}$ 22'27	2°09'42	conjunction	-1867 Dec 28 j 12:04	22° $\mathring{A}$ 27'16	0°-6'-48
max. Earth dist.	-1873 Oct 22 j 22:23	14° $\mathring{A}$ 20'09	11.16240 AU	minimum elong	-1867 Dec 28 j 12:03	22° $\mathring{A}$ 27'16	0°06'52
morning rise	-1873 Nov 08 j 15:52	16° $\mathring{A}$ 16'27		behind sun begin	-1867 Dec 28 j 05:30	22° $\mathring{A}$ 25'18	
retrograde	-1872 Feb 16 j 13:46	23° $\mathring{A}$ 09'09		behind sun end	-1867 Dec 28 j 18:36	22° $\mathring{A}$ 29'14	
opposition	-1872 Apr 27 j 00:49	19° $\mathring{A}$ 52'48	2°30'21	max. Earth dist.	-1867 Dec 28 j 00:55	22° $\mathring{A}$ 23'54	10.77181 AU
min. Earth dist.	-1872 Apr 27 j 08:02	19° $\mathring{A}$ 51'29	9.16576 AU	morning rise	-1866 Jan 14 j 10:07	24° $\mathring{A}$ 29'45	
direct	-1872 Jul 07 j 11:09	16° $\mathring{A}$ 34'16			-1866 Mar 09 j 15:44	0° $\mathring{A}$	
evening set	-1872 Oct 16 j 21:26	23° $\mathring{A}$ 31'58		retrograde	-1866 Apr 28 j 19:16	1° $\mathring{A}$ 59'20	
					-1866 Jun 19 j 11:32	30° $\mathring{R}$ $\mathring{A}$	
conjunction	-1872 Nov 02 j 08:24	25° $\mathring{A}$ 26'24	1°55'53	opposition	-1866 Jul 08 j 12:02	28° $\mathring{A}$ 35'58	0°-26'-55
minimum elong	-1872 Nov 02 j 08:26	25° $\mathring{A}$ 26'25	1°55'53	min. Earth dist.	-1866 Jul 08 j 20:40	28° $\mathring{A}$ 34'20	8.70735 AU
max. Earth dist.	-1872 Nov 01 j 23:07	25° $\mathring{A}$ 23'42	11.15893 AU	direct	-1866 Sep 15 j 06:55	25° $\mathring{A}$ 16'09	
morning rise	-1872 Nov 18 j 18:23	27° $\mathring{A}$ 20'39			-1866 Dec 01 j 22:48	0° $\mathring{A}$	
	-1872 Dec 13 j 05:48	0° $\mathring{M}$		evening set	-1866 Dec 23 j 21:21	2° $\mathring{A}$ 31'32	
retrograde	-1871 Feb 27 j 04:58	4° $\mathring{M}$ 15'37					
opposition	-1871 May 08 j 22:42	0° $\mathring{M}$ 58'44	2°10'46	conjunction	-1865 Jan 09 j 18:36	4° $\mathring{A}$ 35'19	0°-36'-25
min. Earth dist.	-1871 May 09 j 07:34	0° $\mathring{M}$ 57'07	9.14805 AU	minimum elong	-1865 Jan 09 j 18:35	4° $\mathring{A}$ 35'19	0°36'28
	-1871 May 22 j 13:02	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	-1865 Jan 09 j 08:41	4° $\mathring{A}$ 32'16	10.64213 AU
direct	-1871 Jul 19 j 01:22	27° $\mathring{A}$ 40'40		morning rise	-1865 Jan 26 j 20:08	6° $\mathring{A}$ 40'27	
	-1871 Sep 11 j 23:32	0° $\mathring{M}$		retrograde	-1865 May 12 j 01:33	14° $\mathring{A}$ 20'45	
evening set	-1871 Oct 27 j 23:37	4° $\mathring{M}$ 37'26		opposition	-1865 Jul 21 j 11:49	10° $\mathring{A}$ 55'41	-1°-3'-15
				min. Earth dist.	-1865 Jul 21 j 19:11	10° $\mathring{A}$ 54'16	8.57382 AU
conjunction	-1871 Nov 13 j 10:51	6° $\mathring{M}$ 32'22	1°37'39	direct	-1865 Sep 27 j 17:54	7° $\mathring{A}$ 34'49	
minimum elong	-1871 Nov 13 j 10:53	6° $\mathring{M}$ 32'22	1°37'39	evening set	-1864 Jan 05 j 11:09	14° $\mathring{A}$ 58'25	
max. Earth dist.	-1871 Nov 12 j 23:31	6° $\mathring{M}$ 29'03	11.12802 AU				
morning rise	-1871 Nov 29 j 22:14	8° $\mathring{M}$ 27'23		conjunction	-1864 Jan 22 j 11:31	17° $\mathring{A}$ 04'53	-1°-5'-9
	-1870 Feb 15 j 16:47	15° $\mathring{M}$		minimum elong	-1864 Jan 22 j 11:29	17° $\mathring{A}$ 04'53	1°05'11
retrograde	-1870 Mar 11 j 00:15	15° $\mathring{M}$ 26'18		max. Earth dist.	-1864 Jan 22 j 04:03	17° $\mathring{A}$ 02'33	10.50593 AU
	-1870 Apr 03 j 14:49	15° $\mathring{R}$ $\mathring{M}$		morning rise	-1864 Feb 08 j 16:32	19° $\mathring{A}$ 12'51	
opposition	-1870 May 20 j 22:24	12° $\mathring{M}$ 08'36	1°46'08	retrograde	-1864 May 24 j 18:32	27° $\mathring{A}$ 04'28	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 4

Attention, astronomical year style is used: The year -1864 in astronomical counting style is the year 1865 BCE in historical counting style.

opposition	-1864 Aug 02 j 18:35	23°☾37'44	-1°-37'-42	min. Earth dist.	-1858 Oct 25 j 09:20	17°☿15'17	7.92156 AU
min. Earth dist.	-1864 Aug 02 j 23:46	23°☾36'43	8.43703 AU	direct	-1858 Dec 30 j 20:54	13°☿44'41	
direct	-1864 Oct 09 j 10:34	20°☾15'42		evening set	-1857 Apr 14 j 09:09	22°☿05'32	
evening set	-1863 Jan 17 j 12:36	27°☾48'39					
				conjunction	-1857 May 02 j 11:27	24°☿27'53	-1°-55'-37
conjunction	-1863 Feb 03 j 16:20	29°☾57'57	-1°-31'-25	minimum elong	-1857 May 02 j 11:31	24°☿27'54	1°55'38
minimum elong	-1863 Feb 03 j 16:17	29°☾57'56	1°31'27	max. Earth dist.	-1857 May 02 j 22:54	24°☿31'40	9.92395 AU
max. Earth dist.	-1863 Feb 03 j 11:35	29°☾56'27	10.36941 AU	morning rise	-1857 May 20 j 15:03	26°☿50'39	
	-1863 Feb 03 j 22:50	0°☿			-1857 Jun 15 j 05:31	0°☿	
morning rise	-1863 Feb 21 j 00:52	2°☿08'50		retrograde	-1857 Sep 03 j 13:10	5°☿17'18	
retrograde	-1863 Jun 07 j 20:09	10°☿11'43		opposition	-1857 Nov 09 j 04:52	1°☿47'06	-2°-10'-51
opposition	-1863 Aug 16 j 08:21	6°☿43'27	-2°-8'-17	min. Earth dist.	-1857 Nov 08 j 19:27	1°☿49'04	7.93797 AU
min. Earth dist.	-1863 Aug 16 j 10:57	6°☿42'56	8.30348 AU		-1857 Dec 01 j 16:17	30°☿	
direct	-1863 Oct 22 j 11:21	3°☿20'08		direct	-1856 Jan 14 j 15:26	28°☿17'36	
evening set	-1862 Jan 31 j 02:15	11°☿03'12			-1856 Feb 27 j 01:00	0°☿	
				evening set	-1856 Apr 28 j 20:18	6°☿39'00	
conjunction	-1862 Feb 17 j 09:29	13°☿15'21	-1°-53'-37				
minimum elong	-1862 Feb 17 j 09:26	13°☿15'20	1°53'38	conjunction	-1856 May 17 j 00:47	9°☿01'23	-1°-31'-52
max. Earth dist.	-1862 Feb 17 j 07:00	13°☿14'33	10.23945 AU	minimum elong	-1856 May 17 j 00:51	9°☿01'24	1°31'51
	-1862 Mar 03 j 01:13	15°☿		max. Earth dist.	-1856 May 17 j 14:02	9°☿05'44	9.95829 AU
morning rise	-1862 Mar 06 j 21:39	15°☿29'08		morning rise	-1856 Jun 04 j 05:05	11°☿23'40	
retrograde	-1862 Jun 22 j 06:06	23°☿42'31			-1856 Jul 03 j 22:52	15°☿	
opposition	-1862 Aug 30 j 05:14	20°☿12'57	-2°-32'-51	retrograde	-1856 Sep 17 j 02:39	19°☿42'52	
min. Earth dist.	-1862 Aug 30 j 05:31	20°☿12'53	8.18014 AU	opposition	-1856 Nov 22 j 13:55	16°☿13'49	-1°-37'-19
direct	-1862 Nov 04 j 20:57	16°☿48'19		min. Earth dist.	-1856 Nov 22 j 03:34	16°☿15'58	7.98835 AU
evening set	-1861 Feb 14 j 03:59	24°☿41'35			-1856 Dec 07 j 17:10	15°☿	
				direct	-1855 Jan 28 j 09:46	12°☿44'05	
conjunction	-1861 Mar 03 j 14:55	26°☿56'33	-2°-10'-2		-1855 Mar 20 j 05:55	15°☿	
minimum elong	-1861 Mar 03 j 14:53	26°☿56'32	2°10'04	evening set	-1855 May 14 j 04:37	21°☿03'14	
max. Earth dist.	-1861 Mar 03 j 14:51	26°☿56'31	10.12333 AU				
morning rise	-1861 Mar 21 j 06:47	29°☿13'05		conjunction	-1855 Jun 01 j 09:41	23°☿24'38	-1°-2'-36
	-1861 Mar 27 j 11:48	0°☿		minimum elong	-1855 Jun 01 j 09:45	23°☿24'39	1°02'35
retrograde	-1861 Jul 06 j 22:57	7°☿35'21		max. Earth dist.	-1855 Jun 01 j 23:40	23°☿29'11	10.02511 AU
opposition	-1861 Sep 13 j 08:28	4°☿04'48	-2°-49'-19	morning rise	-1855 Jun 19 j 13:08	25°☿45'30	
min. Earth dist.	-1861 Sep 13 j 06:47	4°☿05'08	8.07420 AU		-1855 Jul 25 j 12:51	0°☿	
direct	-1861 Nov 18 j 15:00	0°☿38'50		retrograde	-1855 Oct 01 j 09:01	3°☿54'52	
evening set	-1860 Feb 28 j 17:15	8°☿41'45		opposition	-1855 Dec 06 j 18:14	0°☿27'16	0°-58'-18
				min. Earth dist.	-1855 Dec 06 j 07:54	0°☿29'24	8.06913 AU
conjunction	-1860 Mar 17 j 08:12	10°☿59'18	-2°-19'-13		-1855 Dec 12 j 06:44	30°☿	
minimum elong	-1860 Mar 17 j 08:11	10°☿59'18	2°19'14	direct	-1854 Feb 12 j 02:53	26°☿57'37	
max. Earth dist.	-1860 Mar 17 j 10:51	11°☿00'11	10.02820 AU		-1854 Apr 13 j 05:10	0°☿	
morning rise	-1860 Apr 04 j 03:43	13°☿18'19		evening set	-1854 May 29 j 06:49	5°☿12'00	
retrograde	-1860 Jul 20 j 20:42	21°☿46'52					
opposition	-1860 Sep 26 j 16:37	18°☿15'44	-2°-55'-56	conjunction	-1854 Jun 16 j 10:46	7°☿31'32	0°-30'-2
min. Earth dist.	-1860 Sep 26 j 13:04	18°☿16'28	7.99239 AU	minimum elong	-1854 Jun 16 j 10:47	7°☿31'32	0°30'01
direct	-1860 Dec 01 j 17:58	14°☿48'32		max. Earth dist.	-1854 Jun 17 j 00:13	7°☿35'51	10.11963 AU
evening set	-1859 Mar 14 j 16:21	22°☿59'45		morning rise	-1854 Jul 04 j 11:52	9°☿50'07	
				retrograde	-1854 Oct 15 j 05:11	17°☿48'17	
conjunction	-1859 Apr 01 j 11:27	25°☿19'32	-2°-20'-2	opposition	-1854 Dec 20 j 16:30	14°☿22'17	0°-16'-43
minimum elong	-1859 Apr 01 j 11:28	25°☿19'33	2°20'04	min. Earth dist.	-1854 Dec 20 j 07:12	14°☿24'11	8.17463 AU
max. Earth dist.	-1859 Apr 01 j 17:01	25°☿21'22	9.96039 AU	direct	-1853 Feb 26 j 16:18	10°☿53'00	
morning rise	-1859 Apr 19 j 10:21	27°☿40'31		asc. node	-1853 May 21 j 12:45	16°☿19'24	
	-1859 May 08 j 00:14	0°☿		evening set	-1853 Jun 13 j 00:16	19°☿00'43	
retrograde	-1859 Aug 04 j 20:00	6°☿12'06					
opposition	-1859 Oct 11 j 04:10	2°☿40'50	-2°-51'-37	conjunction	-1853 Jul 01 j 01:31	21°☿17'37	0°03'39
min. Earth dist.	-1859 Oct 10 j 22:41	2°☿41'58	7.94023 AU	minimum elong	-1853 Jul 01 j 01:29	21°☿17'36	0°03'41
	-1859 Nov 17 j 02:11	30°☿		behind sun begin	-1853 Jun 30 j 18:15	21°☿15'20	
direct	-1859 Dec 16 j 04:52	29°☿12'36		behind sun end	-1853 Jul 01 j 08:44	21°☿19'53	
	-1858 Jan 14 j 02:25	0°☿		max. Earth dist.	-1853 Jul 01 j 12:55	21°☿21'13	10.23500 AU
evening set	-1858 Mar 29 j 22:40	7°☿29'58		morning rise	-1853 Jul 18 j 22:57	23°☿33'17	
					-1853 Sep 20 j 04:37	0°☿	
conjunction	-1858 Apr 16 j 21:40	9°☿51'24	-2°-12'-4	retrograde	-1853 Oct 28 j 14:48	1°☿19'50	
minimum elong	-1858 Apr 16 j 21:43	9°☿51'25	2°12'05		-1853 Dec 06 j 15:19	30°☿	
max. Earth dist.	-1858 Apr 17 j 06:22	9°☿54'17	9.92469 AU	opposition	-1852 Jan 03 j 07:49	27°☿55'32	0°24'37
morning rise	-1858 May 04 j 23:21	12°☿13'42		min. Earth dist.	-1852 Jan 02 j 23:56	27°☿57'07	8.29725 AU
retrograde	-1858 Aug 19 j 18:15	20°☿44'38		direct	-1852 Mar 12 j 00:02	24°☿26'52	
opposition	-1858 Oct 25 j 16:59	17°☿13'41	-2°-36'-16		-1852 Jun 05 j 16:01	0°☿	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 5

Attention, astronomical year style is used: The year -1852 in astronomical counting style is the year 1853 BCE in historical counting style.

evening set	-1852 Jun 26 j 07:30	2° $\overline{26}$ '43		conjunction	-1846 Sep 26 j 09:25	17° $\overline{17}$ '33'04	2°22'28
				minimum elong	-1846 Sep 26 j 09:24	17° $\overline{17}$ '33'04	2°22'29
conjunction	-1852 Jul 14 j 04:38	4° $\overline{44}$ '30'0	0°36'11	max. Earth dist.	-1846 Sep 26 j 04:48	17° $\overline{17}$ '31'42	11.04482 AU
minimum elong	-1852 Jul 14 j 04:37	4° $\overline{44}$ '30'0	0°36'13	morning rise	-1846 Oct 12 j 22:14	19° $\overline{19}$ '29'03	
max. Earth dist.	-1852 Jul 14 j 13:17	4° $\overline{44}$ '31'3	10.36303 AU	retrograde	-1845 Jan 20 j 00:11	26° $\overline{26}$ '23'39	
morning rise	-1852 Jul 31 j 21:22	6° $\overline{52}$ '53		opposition	-1845 Mar 30 j 13:33	23° $\overline{23}$ '07'02	2°53'49
retrograde	-1852 Nov 09 j 15:33	14° $\overline{14}$ '28'18		min. Earth dist.	-1845 Mar 30 j 17:39	23° $\overline{23}$ '06'16	9.07800 AU
opposition	-1851 Jan 15 j 15:54	11° $\overline{11}$ '05'41	1°03'24	direct	-1845 Jun 10 j 03:37	19° $\overline{19}$ '46'01	
min. Earth dist.	-1851 Jan 15 j 09:28	11° $\overline{11}$ '06'57	8.42877 AU	evening set	-1845 Sep 21 j 04:30	26° $\overline{26}$ '52'47	
direct	-1851 Mar 25 j 23:33	7° $\overline{7}$ '37'55					
evening set	-1851 Jul 10 j 03:31	15° $\overline{15}$ '29'20		conjunction	-1845 Oct 07 j 18:17	28° $\overline{28}$ '48'26	2°21'01
				minimum elong	-1845 Oct 07 j 18:18	28° $\overline{28}$ '48'26	2°21'00
conjunction	-1851 Jul 27 j 19:45	17° $\overline{17}$ '39'50	1°06'04	max. Earth dist.	-1845 Oct 07 j 12:27	28° $\overline{28}$ '46'44	11.10153 AU
minimum elong	-1851 Jul 27 j 19:42	17° $\overline{17}$ '39'49	1°06'06		-1845 Oct 17 j 23:08	0° $\overline{0}$	
max. Earth dist.	-1851 Jul 28 j 02:00	17° $\overline{17}$ '41'46	10.49607 AU	morning rise	-1845 Oct 24 j 05:03	0° $\overline{0}$ '43'18	
morning rise	-1851 Aug 14 j 07:05	19° $\overline{19}$ '48'47		retrograde	-1844 Jan 31 j 12:18	7° $\overline{7}$ '43'15	
retrograde	-1851 Nov 22 j 08:34	27° $\overline{27}$ '14'05		opposition	-1844 Apr 10 j 12:10	4° $\overline{4}$ '19'42	2°48'36
opposition	-1850 Jan 28 j 17:11	23° $\overline{23}$ '53'02	1°37'48	min. Earth dist.	-1844 Apr 10 j 18:07	4° $\overline{4}$ '18'37	9.12292 AU
min. Earth dist.	-1850 Jan 28 j 12:01	23° $\overline{23}$ '54'03	8.56233 AU	direct	-1844 Jun 21 j 01:17	0° $\overline{0}$ '59'33	
direct	-1850 Apr 08 j 14:48	20° $\overline{20}$ '26'22		evening set	-1844 Oct 01 j 11:08	8° $\overline{8}$ '01'57	
evening set	-1850 Jul 23 j 12:01	28° $\overline{28}$ '09'11					
	-1850 Aug 07 j 17:25	0° $\overline{0}$		conjunction	-1844 Oct 17 j 23:04	9° $\overline{9}$ '56'48	2°14'12
				minimum elong	-1844 Oct 17 j 23:05	9° $\overline{9}$ '56'49	2°14'11
conjunction	-1850 Aug 09 j 22:58	0° $\overline{0}$ '16'23	1°31'57	max. Earth dist.	-1844 Oct 17 j 15:09	9° $\overline{9}$ '54'30	11.13430 AU
minimum elong	-1850 Aug 09 j 22:55	0° $\overline{0}$ '16'22	1°31'58	morning rise	-1844 Nov 03 j 08:57	11° $\overline{11}$ '51'07	
max. Earth dist.	-1850 Aug 10 j 03:27	0° $\overline{0}$ '17'46	10.62805 AU	retrograde	-1843 Feb 11 j 01:16	18° $\overline{18}$ '44'01	
morning rise	-1850 Aug 27 j 04:41	2° $\overline{2}$ '22'01		opposition	-1843 Apr 22 j 09:50	15° $\overline{15}$ '27'16	2°37'07
retrograde	-1850 Dec 04 j 17:34	9° $\overline{9}$ '38'23		min. Earth dist.	-1843 Apr 22 j 17:36	15° $\overline{15}$ '25'51	9.14317 AU
opposition	-1849 Feb 10 j 12:03	6° $\overline{6}$ '18'45	2°06'30	direct	-1843 Jul 02 j 21:11	12° $\overline{12}$ '07'51	
min. Earth dist.	-1849 Feb 10 j 08:47	6° $\overline{6}$ '19'23	8.69221 AU	evening set	-1843 Oct 12 j 14:45	19° $\overline{19}$ '07'10	
direct	-1849 Apr 21 j 22:13	2° $\overline{2}$ '53'15					
evening set	-1849 Aug 05 j 09:45	10° $\overline{10}$ '27'37		conjunction	-1843 Oct 29 j 01:48	21° $\overline{21}$ '01'45	2°02'22
				minimum elong	-1843 Oct 29 j 01:50	21° $\overline{21}$ '01'46	2°02'21
conjunction	-1849 Aug 22 j 15:18	12° $\overline{12}$ '31'41	1°52'56	max. Earth dist.	-1843 Oct 28 j 16:14	20° $\overline{20}$ '58'58	11.14221 AU
minimum elong	-1849 Aug 22 j 15:15	12° $\overline{12}$ '31'40	1°52'57	morning rise	-1843 Nov 14 j 11:48	22° $\overline{22}$ '56'04	
max. Earth dist.	-1849 Aug 22 j 17:40	12° $\overline{12}$ '32'24	10.75354 AU	retrograde	-1842 Feb 22 j 14:45	29° $\overline{29}$ '50'29	
morning rise	-1849 Sep 08 j 15:38	14° $\overline{14}$ '34'15		opposition	-1842 May 04 j 07:19	26° $\overline{26}$ '33'17	2°19'49
	-1849 Sep 12 j 07:14	15° $\overline{15}$ ' $\overline{0}$		min. Earth dist.	-1842 May 04 j 15:43	26° $\overline{26}$ '31'44	9.13808 AU
retrograde	-1849 Dec 16 j 20:50	21° $\overline{21}$ '42'58		direct	-1842 Jul 14 j 13:52	23° $\overline{23}$ '14'25	
opposition	-1848 Feb 23 j 01:05	18° $\overline{18}$ '24'31	2°28'44		-1842 Oct 21 j 22:41	0° $\overline{0}$ ' $\overline{M}$	
min. Earth dist.	-1848 Feb 23 j 00:23	18° $\overline{18}$ '24'39	8.81315 AU	evening set	-1842 Oct 23 j 17:00	0° $\overline{0}$ ' $\overline{M}$ '12'04	
direct	-1848 May 03 j 21:12	15° $\overline{15}$ '00'13					
evening set	-1848 Aug 16 j 21:11	22° $\overline{22}$ '26'32		conjunction	-1842 Nov 09 j 04:12	2° $\overline{2}$ '06'56	1°45'55
				minimum elong	-1842 Nov 09 j 04:15	2° $\overline{2}$ '06'57	1°45'54
conjunction	-1848 Sep 02 j 21:33	24° $\overline{24}$ '27'47	2°08'29	max. Earth dist.	-1842 Nov 08 j 18:29	2° $\overline{2}$ '04'05	11.12482 AU
minimum elong	-1848 Sep 02 j 21:31	24° $\overline{24}$ '27'47	2°08'30	morning rise	-1842 Nov 25 j 15:01	4° $\overline{4}$ '01'45	
max. Earth dist.	-1848 Sep 02 j 20:55	24° $\overline{24}$ '27'36	10.86761 AU	retrograde	-1841 Mar 06 j 09:45	10° $\overline{10}$ '59'18	
morning rise	-1848 Sep 19 j 17:13	26° $\overline{26}$ '27'40		opposition	-1841 May 16 j 06:08	7° $\overline{7}$ '41'25	1°57'13
	-1848 Oct 22 j 08:27	0° $\overline{0}$ ' $\overline{M}$		min. Earth dist.	-1841 May 16 j 14:34	7° $\overline{7}$ '39'52	9.10765 AU
retrograde	-1848 Dec 27 j 16:29	3° $\overline{3}$ '30'09		direct	-1841 Jul 26 j 06:47	4° $\overline{4}$ '22'57	
opposition	-1847 Mar 06 j 09:12	0° $\overline{0}$ ' $\overline{M}$ '12'38	2°44'03	evening set	-1841 Nov 03 j 19:52	11° $\overline{11}$ '20'22	
min. Earth dist.	-1847 Mar 06 j 10:45	0° $\overline{0}$ ' $\overline{M}$ '12'20	8.92036 AU				
	-1847 Mar 09 j 04:13	30° $\overline{30}$ ' $\overline{R}$ ' $\overline{0}$		conjunction	-1841 Nov 20 j 07:50	13° $\overline{13}$ '15'59	1°25'22
direct	-1847 May 16 j 12:59	26° $\overline{26}$ '49'29		minimum elong	-1841 Nov 20 j 07:52	13° $\overline{13}$ '16'00	1°25'21
	-1847 Jul 20 j 15:35	0° $\overline{0}$ ' $\overline{M}$		max. Earth dist.	-1841 Nov 19 j 21:57	13° $\overline{13}$ '13'05	11.08253 AU
evening set	-1847 Aug 28 j 23:04	4° $\overline{4}$ ' $\overline{M}$ '08'23			-1841 Dec 05 j 03:14	15° $\overline{15}$ ' $\overline{M}$	
				morning rise	-1841 Dec 06 j 20:12	15° $\overline{15}$ ' $\overline{M}$ '11'49	
conjunction	-1847 Sep 14 j 18:58	6° $\overline{6}$ ' $\overline{M}$ '07'15	2°18'20	retrograde	-1840 Mar 17 j 08:07	22° $\overline{22}$ ' $\overline{M}$ '14'03	
minimum elong	-1847 Sep 14 j 18:57	6° $\overline{6}$ ' $\overline{M}$ '07'14	2°18'22	opposition	-1840 May 27 j 07:30	18° $\overline{18}$ '55'17	1°29'57
max. Earth dist.	-1847 Sep 14 j 15:41	6° $\overline{6}$ ' $\overline{M}$ '06'16	10.96592 AU	min. Earth dist.	-1840 May 27 j 16:14	18° $\overline{18}$ '53'41	9.05288 AU
morning rise	-1847 Oct 01 j 10:49	8° $\overline{8}$ ' $\overline{M}$ '04'55		direct	-1840 Aug 05 j 21:33	15° $\overline{15}$ '37'00	
retrograde	-1846 Jan 08 j 08:45	15° $\overline{15}$ ' $\overline{M}$ '02'44		evening set	-1840 Nov 14 j 01:21	22° $\overline{22}$ ' $\overline{M}$ '35'44	
opposition	-1846 Mar 18 j 13:04	11° $\overline{11}$ ' $\overline{M}$ '45'47	2°52'23				
min. Earth dist.	-1846 Mar 18 j 15:55	11° $\overline{11}$ ' $\overline{M}$ '45'16	9.00974 AU	conjunction	-1840 Nov 30 j 14:34	24° $\overline{24}$ ' $\overline{M}$ '32'32	1°01'19
direct	-1846 May 29 j 00:11	8° $\overline{8}$ ' $\overline{M}$ '23'45		minimum elong	-1840 Nov 30 j 14:36	24° $\overline{24}$ ' $\overline{M}$ '32'33	1°01'17
evening set	-1846 Sep 09 j 17:00	15° $\overline{15}$ ' $\overline{M}$ '36'04		max. Earth dist.	-1840 Nov 30 j 03:38	24° $\overline{24}$ ' $\overline{M}$ '29'18	11.01683 AU
				morning rise	-1840 Dec 17 j 05:20	26° $\overline{26}$ ' $\overline{M}$ '29'51	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 6

Attention, astronomical year style is used: The year -1839 in astronomical counting style is the year 1840 BCE in historical counting style.

	-1839 Jan 18 j 19:23	0°♊		minimum elong	-1833 Feb 11 j 22:38	7°≈50'56	1°44'47
retrograde	-1839 Mar 29 j 11:11	3°♊38'20		max. Earth dist.	-1833 Feb 11 j 19:02	7°≈49'47	10.31543 AU
opposition	-1839 Jun 08 j 12:22	0°♊18'29	0°58'46	morning rise	-1833 Mar 01 j 09:13	10°≈03'12	
min. Earth dist.	-1839 Jun 08 j 21:44	0°♊16'44	8.97575 AU		-1833 Apr 14 j 13:27	15°≈	
	-1839 Jun 12 j 16:10	30°♋		retrograde	-1833 Jun 16 j 11:47	18°≈11'15	
direct	-1839 Aug 17 j 15:08	27°♋00'06			-1833 Aug 21 j 03:43	15°≈	
	-1839 Oct 18 j 10:01	0°♊		opposition	-1833 Aug 24 j 17:30	14°≈42'54	-2°-23'-7
evening set	-1839 Nov 25 j 11:07	4°♊01'45		min. Earth dist.	-1833 Aug 24 j 19:23	14°≈42'31	8.25395 AU
				direct	-1833 Oct 30 j 14:18	11°≈19'29	
conjunction	-1839 Dec 12 j 02:14	6°♊00'10	0°34'29		-1832 Jan 04 j 02:04	15°≈	
minimum elong	-1839 Dec 12 j 02:15	6°♊00'10	0°34'26	evening set	-1832 Feb 08 j 13:16	19°≈07'24	
max. Earth dist.	-1839 Dec 11 j 15:24	5°♊56'56	10.92992 AU				
morning rise	-1839 Dec 28 j 19:49	7°♊59'21		conjunction	-1832 Feb 25 j 22:27	21°≈20'51	-2°-3'-46
retrograde	-1838 Apr 10 j 22:05	15°♊15'33		minimum elong	-1832 Feb 25 j 22:24	21°≈20'50	2°03'47
opposition	-1838 Jun 20 j 21:42	11°♊54'26	0°24'35	max. Earth dist.	-1832 Feb 25 j 21:36	21°≈20'35	10.19405 AU
min. Earth dist.	-1838 Jun 21 j 06:38	11°♊52'46	8.87891 AU	morning rise	-1832 Mar 14 j 12:33	23°≈35'54	
direct	-1838 Aug 29 j 12:46	8°♊35'44			-1832 May 13 j 18:12	0°♋	
evening set	-1838 Dec 07 j 03:05	15°♊41'53		retrograde	-1832 Jun 30 j 01:12	1°♋53'33	
					-1832 Aug 17 j 04:23	30°≈	
conjunction	-1838 Dec 23 j 20:33	17°♊42'16	0°05'46	opposition	-1832 Sep 06 j 17:33	28°≈24'04	-2°-43'-11
minimum elong	-1838 Dec 23 j 20:34	17°♊42'16	0°05'43	min. Earth dist.	-1832 Sep 06 j 17:10	28°≈24'09	8.13988 AU
behind sun begin	-1838 Dec 23 j 13:50	17°♊40'15		direct	-1832 Nov 12 j 04:27	24°≈59'20	
behind sun end	-1838 Dec 24 j 03:18	17°♊44'17			-1831 Jan 28 j 14:44	0°♋	
max. Earth dist.	-1838 Dec 23 j 11:10	17°♊39'27	10.82480 AU	evening set	-1831 Feb 21 j 21:14	2°♋57'12	
morning rise	-1837 Jan 09 j 17:07	19°♊43'40					
desc. node	-1837 Mar 06 j 16:17	25°♊19'26		conjunction	-1831 Mar 11 j 10:25	5°♋13'22	-2°-16'-9
retrograde	-1837 Apr 23 j 16:36	27°♊08'56		minimum elong	-1831 Mar 11 j 10:24	5°♋13'22	2°16'10
opposition	-1837 Jul 03 j 12:24	23°♊46'24	0°-11'-28	max. Earth dist.	-1831 Mar 11 j 12:18	5°♋13'59	10.08799 AU
min. Earth dist.	-1837 Jul 03 j 19:51	23°♊45'00	8.76598 AU	morning rise	-1831 Mar 29 j 04:05	7°♋31'02	
direct	-1837 Sep 10 j 14:13	20°♊27'12		retrograde	-1831 Jul 14 j 21:13	15°♋56'14	
evening set	-1837 Dec 19 j 03:06	27°♊39'22		opposition	-1831 Sep 20 j 23:03	12°♋25'57	-2°-54'-9
				min. Earth dist.	-1831 Sep 20 j 20:18	12°♋26'31	8.04487 AU
conjunction	-1836 Jan 04 j 23:13	29°♊42'02	0°-23'-57	direct	-1831 Nov 26 j 02:23	8°♋59'54	
minimum elong	-1836 Jan 04 j 23:12	29°♊42'01	0°24'00	evening set	-1830 Mar 08 j 15:47	17°♋06'47	
max. Earth dist.	-1836 Jan 04 j 15:14	29°♊39'36	10.70556 AU				
	-1836 Jan 07 j 09:59	0°♌		conjunction	-1830 Mar 26 j 09:03	19°♋25'23	-2°-20'-38
morning rise	-1836 Jan 21 j 23:02	1°♌45'54		minimum elong	-1830 Mar 26 j 09:03	19°♋25'23	2°20'39
retrograde	-1836 May 05 j 20:50	9°♌21'21		max. Earth dist.	-1830 Mar 26 j 13:41	19°♋26'55	10.00494 AU
opposition	-1836 Jul 15 j 09:26	5°♌57'20	0°-48'-1	morning rise	-1830 Apr 13 j 06:10	21°♋45'17	
min. Earth dist.	-1836 Jul 15 j 15:14	5°♌56'13	8.64155 AU		-1830 Jul 13 j 05:26	0°♎	
direct	-1836 Sep 21 j 21:02	2°♌37'22		retrograde	-1830 Jul 29 j 20:10	0°♎15'07	
evening set	-1836 Dec 30 j 12:41	9°♌56'59			-1830 Aug 15 j 09:44	30°≈	
				opposition	-1830 Oct 05 j 08:50	26°♋44'22	-2°-54'-37
conjunction	-1835 Jan 16 j 11:36	12°♌02'10	0°-53'-13	min. Earth dist.	-1830 Oct 05 j 03:55	26°♋45'23	7.97607 AU
minimum elong	-1835 Jan 16 j 11:34	12°♌02'09	0°53'16	direct	-1830 Dec 10 j 09:16	23°♋17'04	
max. Earth dist.	-1835 Jan 16 j 04:29	11°♌59'57	10.57718 AU		-1829 Mar 11 j 18:55	0°♎	
morning rise	-1835 Feb 02 j 14:58	14°♌08'46		evening set	-1829 Mar 23 j 18:36	1°♎31'10	
retrograde	-1835 May 19 j 10:23	21°♌55'03					
opposition	-1835 Jul 28 j 13:14	18°♌29'32	-1°-23'-27	conjunction	-1829 Apr 10 j 15:51	3°♎51'44	-2°-16'-28
min. Earth dist.	-1835 Jul 28 j 17:55	18°♌28'38	8.51087 AU	minimum elong	-1829 Apr 10 j 15:53	3°♎51'45	2°16'29
direct	-1835 Oct 04 j 09:27	15°♌08'35		max. Earth dist.	-1829 Apr 10 j 22:59	3°♎54'05	9.95131 AU
evening set	-1834 Jan 12 j 09:12	22°♌36'54		morning rise	-1829 Apr 28 j 16:09	6°♎13'17	
				retrograde	-1829 Aug 13 j 18:47	14°♎44'13	
conjunction	-1834 Jan 29 j 11:11	24°♌44'45	-1°-20'-41	opposition	-1829 Oct 19 j 20:52	11°♎13'24	-2°-44'-2
minimum elong	-1834 Jan 29 j 11:08	24°♌44'44	1°20'43	min. Earth dist.	-1829 Oct 19 j 14:25	11°♎14'45	7.93871 AU
max. Earth dist.	-1834 Jan 29 j 05:19	24°♌42'54	10.44516 AU	direct	-1829 Dec 24 j 22:25	7°♎45'01	
morning rise	-1834 Feb 15 j 18:09	26°♌54'10		evening set	-1828 Apr 07 j 03:07	16°♎03'54	
	-1834 Mar 14 j 07:20	0°≈					
retrograde	-1834 Jun 02 j 06:42	4°≈51'31		conjunction	-1828 Apr 25 j 03:55	18°♎25'45	-2°-3'-38
opposition	-1834 Aug 10 j 23:53	1°≈24'32	-1°-55'-50	minimum elong	-1828 Apr 25 j 03:59	18°♎25'46	2°03'38
min. Earth dist.	-1834 Aug 11 j 03:24	1°≈23'51	8.37969 AU	max. Earth dist.	-1828 Apr 25 j 12:54	18°♎28'43	9.93115 AU
	-1834 Aug 29 j 11:10	30°≈		morning rise	-1828 May 13 j 06:44	20°♎48'14	
direct	-1834 Oct 17 j 07:37	28°♌02'24		retrograde	-1828 Aug 27 j 14:52	29°♎16'28	
	-1834 Dec 03 j 11:23	0°≈		opposition	-1828 Nov 02 j 08:48	25°♎46'04	-2°-22'-53
evening set	-1833 Jan 25 j 17:18	5°≈40'19		min. Earth dist.	-1828 Nov 02 j 01:27	25°♎47'36	7.93554 AU
				direct	-1827 Jan 07 j 15:39	22°♎16'48	
conjunction	-1833 Feb 11 j 22:41	7°≈50'57	-1°-44'-45		-1827 Apr 17 j 16:03	0°♏	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 7

Attention, astronomical year style is used: The year -1827 in astronomical counting style is the year 1828 BCE in historical counting style.

evening set	-1827 Apr 22 j 13:46	0°♄37'39		conjunction	-1821 Aug 04 j 15:08	25°♄01'38	1°21'02
				minimum elong	-1821 Aug 04 j 15:05	25°♄01'37	1°21'03
conjunction	-1827 May 10 j 17:14	2°♄59'58	-1°-42'-56	max. Earth dist.	-1821 Aug 04 j 20:57	25°♄03'25	10.56200 AU
minimum elong	-1827 May 10 j 17:19	3°♄00'00	1°42'56	morning rise	-1821 Aug 21 j 23:25	27°♄08'46	
max. Earth dist.	-1827 May 11 j 03:36	3°♄03'23	9.94583 AU		-1821 Sep 15 j 22:18	0°♄	
morning rise	-1827 May 28 j 21:26	5°♄22'27		retrograde	-1821 Nov 29 j 15:51	4°♄28'45	
retrograde	-1827 Sep 11 j 05:57	13°♄44'39		opposition	-1820 Feb 05 j 07:15	1°♄08'03	1°54'32
opposition	-1827 Nov 16 j 18:47	10°♄15'02	-1°-52'-42	min. Earth dist.	-1820 Feb 05 j 03:19	1°♄08'49	8.62900 AU
min. Earth dist.	-1827 Nov 16 j 10:33	10°♄16'45	7.96673 AU		-1820 Feb 20 j 03:10	30°♄	
direct	-1826 Jan 22 j 10:26	6°♄45'13		direct	-1820 Apr 15 j 12:53	27°♄41'31	
evening set	-1826 May 07 j 22:47	15°♄05'08			-1820 Jun 08 j 15:06	0°♄	
	-1826 May 07 j 06:44	15°♄		evening set	-1820 Jul 30 j 03:52	5°♄19'24	
conjunction	-1826 May 26 j 03:36	17°♄26'57	-1°-15'-54	conjunction	-1820 Aug 16 j 11:42	7°♄24'48	1°44'14
minimum elong	-1826 May 26 j 03:40	17°♄26'59	1°15'53	minimum elong	-1820 Aug 16 j 11:39	7°♄24'47	1°44'16
max. Earth dist.	-1826 May 26 j 14:59	17°♄30'41	9.99409 AU	max. Earth dist.	-1820 Aug 16 j 14:51	7°♄25'45	10.69439 AU
morning rise	-1826 Jun 13 j 07:44	19°♄48'30		morning rise	-1820 Sep 02 j 14:34	9°♄28'41	
retrograde	-1826 Sep 25 j 14:13	28°♄01'59			-1820 Oct 27 j 14:30	15°♄	
opposition	-1826 Dec 01 j 00:44	24°♄33'30	-1°-15'-51	retrograde	-1820 Dec 10 j 20:39	16°♄40'20	
min. Earth dist.	-1826 Nov 30 j 15:46	24°♄35'21	8.02992 AU		-1819 Jan 25 j 11:09	15°♄	
direct	-1825 Feb 06 j 05:00	21°♄03'27		opposition	-1819 Feb 16 j 22:18	13°♄21'01	2°19'39
evening set	-1825 May 23 j 03:12	29°♄19'49		min. Earth dist.	-1819 Feb 16 j 19:30	13°♄21'34	8.75825 AU
	-1825 May 28 j 09:18	0°♄		direct	-1819 Apr 28 j 15:48	9°♄55'51	
conjunction	-1825 Jun 10 j 07:49	1°♄40'14	0°-44'-34		-1819 Jul 21 j 07:48	15°♄	
minimum elong	-1825 Jun 10 j 07:51	1°♄40'15	0°44'33	evening set	-1819 Aug 11 j 19:13	17°♄25'21	
max. Earth dist.	-1825 Jun 10 j 19:32	1°♄44'01	10.07234 AU	conjunction	-1819 Aug 28 j 21:52	19°♄27'46	2°02'12
morning rise	-1825 Jun 28 j 10:20	3°♄59'55		minimum elong	-1819 Aug 28 j 21:49	19°♄27'45	2°02'14
retrograde	-1825 Oct 09 j 13:19	12°♄02'55		max. Earth dist.	-1819 Aug 28 j 23:26	19°♄28'14	10.81812 AU
opposition	-1825 Dec 15 j 01:02	8°♄35'48	0°-35'-7	morning rise	-1819 Sep 14 j 19:38	21°♄28'44	
min. Earth dist.	-1825 Dec 14 j 15:44	8°♄37'43	8.12062 AU	retrograde	-1819 Dec 22 j 20:13	28°♄33'29	
direct	-1824 Feb 20 j 20:05	5°♄05'53		opposition	-1818 Mar 01 j 07:58	25°♄15'21	2°38'01
evening set	-1824 Jun 06 j 00:14	13°♄16'35		min. Earth dist.	-1818 Mar 01 j 06:46	25°♄15'35	8.87618 AU
conjunction	-1824 Jun 24 j 03:00	15°♄34'45	0°-11'-14	direct	-1818 May 11 j 09:32	21°♄51'34	
minimum elong	-1824 Jun 24 j 03:00	15°♄34'45	0°11'13	evening set	-1818 Aug 24 j 00:44	29°♄13'18	
behind sun begin	-1824 Jun 23 j 21:40	15°♄33'04			-1818 Aug 30 j 16:08	0°♄	
behind sun end	-1824 Jun 24 j 08:20	15°♄36'26		conjunction	-1818 Sep 09 j 22:44	1°♄13'07	2°14'35
max. Earth dist.	-1824 Jun 24 j 14:31	15°♄38'25	10.17502 AU	minimum elong	-1818 Sep 09 j 22:43	1°♄13'06	2°14'37
morning rise	-1824 Jul 12 j 02:19	17°♄51'49		max. Earth dist.	-1818 Sep 09 j 22:36	1°♄13'04	10.92804 AU
retrograde	-1824 Oct 22 j 03:32	25°♄43'31		morning rise	-1818 Sep 26 j 16:07	3°♄11'38	
asc. node	-1824 Oct 28 j 16:38	25°♄41'06		retrograde	-1817 Jan 03 j 14:47	10°♄10'58	
opposition	-1824 Dec 27 j 19:02	22°♄17'58	0°06'35	opposition	-1817 Mar 13 j 13:12	6°♄53'48	2°49'24
min. Earth dist.	-1824 Dec 27 j 10:08	22°♄19'46	8.23278 AU	min. Earth dist.	-1817 Mar 13 j 14:24	6°♄53'34	8.97799 AU
direct	-1823 Mar 06 j 05:16	18°♄48'30		direct	-1817 May 23 j 21:16	3°♄31'21	
evening set	-1823 Jun 20 j 11:41	26°♄51'56		evening set	-1817 Sep 04 j 22:00	10°♄46'08	
conjunction	-1823 Jul 08 j 10:59	29°♄07'14	0°22'03	conjunction	-1817 Sep 21 j 15:53	12°♄43'49	2°21'14
minimum elong	-1823 Jul 08 j 10:58	29°♄07'13	0°22'05	minimum elong	-1817 Sep 21 j 15:52	12°♄43'49	2°21'15
max. Earth dist.	-1823 Jul 08 j 21:40	29°♄10'35	10.29551 AU	max. Earth dist.	-1817 Sep 21 j 13:04	12°♄42'59	11.01990 AU
	-1823 Jul 15 j 10:05	0°♄		morning rise	-1817 Oct 08 j 05:53	14°♄40'23	
morning rise	-1823 Jul 26 j 05:52	1°♄21'10		retrograde	-1816 Jan 15 j 05:35	21°♄35'50	
retrograde	-1823 Nov 04 j 09:07	9°♄01'34		opposition	-1816 Mar 24 j 14:56	18°♄19'20	2°53'50
opposition	-1822 Jan 10 j 06:06	5°♄37'39	0°46'44	min. Earth dist.	-1816 Mar 24 j 18:34	18°♄18'40	9.05989 AU
min. Earth dist.	-1822 Jan 09 j 22:34	5°♄39'09	8.35957 AU	direct	-1816 Jun 04 j 02:30	14°♄58'08	
direct	-1822 Mar 20 j 06:49	2°♄08'56		evening set	-1816 Sep 15 j 12:10	22°♄06'56	
evening set	-1822 Jul 04 j 12:24	10°♄04'07		conjunction	-1816 Oct 02 j 02:51	24°♄03'00	2°22'13
conjunction	-1822 Jul 22 j 07:03	12°♄16'11	0°53'17	minimum elong	-1816 Oct 02 j 02:51	24°♄03'00	2°22'13
minimum elong	-1822 Jul 22 j 07:01	12°♄16'10	0°53'18	max. Earth dist.	-1816 Oct 01 j 21:23	24°♄01'24	11.09050 AU
max. Earth dist.	-1822 Jul 22 j 15:41	12°♄18'52	10.42683 AU	morning rise	-1816 Oct 18 j 14:30	25°♄58'12	
morning rise	-1822 Aug 08 j 20:47	14°♄26'43			-1816 Nov 26 j 09:58	0°♄	
retrograde	-1822 Nov 17 j 05:34	21°♄56'23		retrograde	-1815 Jan 25 j 17:45	2°♄51'20	
opposition	-1821 Jan 23 j 10:02	18°♄34'07	1°23'13		-1815 Mar 30 j 22:59	30°♄	
min. Earth dist.	-1821 Jan 23 j 04:22	18°♄35'15	8.49397 AU	opposition	-1815 Apr 05 j 14:12	29°♄35'10	2°51'31
direct	-1821 Apr 03 j 01:07	15°♄06'24		min. Earth dist.	-1815 Apr 05 j 19:07	29°♄34'16	9.11898 AU
evening set	-1821 Jul 18 j 01:47	22°♄52'56		direct	-1815 Jun 16 j 03:42	26°♄15'04	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 8

Attention, astronomical year style is used: The year -1815 in astronomical counting style is the year 1816 BCE in historical counting style.

	-1815 Aug 26 j 16:42	0°♄		direct	-1809 Aug 24 j 14:52	3°♄39'56	
evening set	-1815 Sep 26 j 20:36	3°♄18'57		evening set	-1809 Dec 02 j 07:46	10°♄43'57	
conjunction	-1815 Oct 13 j 09:14	5°♄13'58	2°17'45	conjunction	-1809 Dec 19 j 00:05	12°♄43'26	0°18'42
minimum elong	-1815 Oct 13 j 09:15	5°♄13'58	2°17'44	minimum elong	-1809 Dec 19 j 00:06	12°♄43'26	0°18'39
max. Earth dist.	-1815 Oct 13 j 02:37	5°♄12'02	11.13730 AU	max. Earth dist.	-1809 Dec 18 j 12:19	12°♄39'54	10.87405 AU
morning rise	-1815 Oct 29 j 19:27	7°♄08'20		morning rise	-1808 Jan 04 j 19:14	14°♄43'49	
retrograde	-1814 Feb 06 j 08:02	14°♄00'42		retrograde	-1808 Apr 17 j 09:28	22°♄04'59	
opposition	-1814 Apr 17 j 11:56	10°♄44'34	2°42'46	opposition	-1808 Jun 27 j 06:37	18°♄43'09	0°04'44
min. Earth dist.	-1814 Apr 17 j 17:50	10°♄43'29	9.15297 AU	min. Earth dist.	-1808 Jun 27 j 16:08	18°♄41'22	8.81553 AU
direct	-1814 Jun 28 j 01:03	7°♄25'23		desc. node	-1808 Aug 15 j 16:17	15°♄44'06	
evening set	-1814 Oct 08 j 01:25	14°♄25'33		direct	-1808 Sep 04 j 13:26	15°♄24'07	
				evening set	-1808 Dec 13 j 04:05	22°♄33'38	
conjunction	-1814 Oct 24 j 12:52	16°♄20'05	2°08'06	conjunction	-1808 Dec 29 j 22:51	24°♄35'18	0°-10'-43
minimum elong	-1814 Oct 24 j 12:55	16°♄20'06	2°08'05	minimum elong	-1808 Dec 29 j 22:51	24°♄35'18	0°10'47
max. Earth dist.	-1814 Oct 24 j 05:10	16°♄17'50	11.15832 AU	behind sun begin	-1808 Dec 29 j 17:25	24°♄33'40	
morning rise	-1814 Nov 09 j 22:33	18°♄14'11		behind sun end	-1808 Dec 30 j 04:16	24°♄36'56	
retrograde	-1813 Feb 17 j 21:27	25°♄07'18		max. Earth dist.	-1808 Dec 29 j 11:38	24°♄31'54	10.75496 AU
opposition	-1813 Apr 29 j 09:14	21°♄50'54	2°28'01	morning rise	-1807 Jan 15 j 21:21	26°♄38'07	
min. Earth dist.	-1813 Apr 29 j 16:52	21°♄49'31	9.16032 AU		-1807 Feb 15 j 01:19	0°♄	
direct	-1813 Jul 09 j 17:28	18°♄32'25		retrograde	-1807 Apr 30 j 08:21	4°♄09'07	
evening set	-1813 Oct 19 j 04:15	25°♄30'17		opposition	-1807 Jul 10 j 00:49	0°♄45'35	0°-31'-46
conjunction	-1813 Nov 04 j 15:13	27°♄24'49	1°53'40	min. Earth dist.	-1807 Jul 10 j 09:37	0°♄43'55	8.69004 AU
minimum elong	-1813 Nov 04 j 15:15	27°♄24'50	1°53'39		-1807 Jul 20 j 02:19	30°♄	
max. Earth dist.	-1813 Nov 04 j 05:11	27°♄21'53	11.15236 AU	direct	-1807 Sep 16 j 19:13	27°♄25'40	
morning rise	-1813 Nov 21 j 01:27	29°♄19'12			-1807 Nov 11 j 09:30	0°♄	
	-1813 Nov 27 j 01:26	0°♄		evening set	-1807 Dec 25 j 09:10	4°♄42'10	
retrograde	-1812 Feb 29 j 13:50	6°♄14'45		conjunction	-1806 Jan 11 j 06:51	6°♄46'19	0°-40'-18
opposition	-1812 May 10 j 07:33	2°♄57'48	2°07'44	minimum elong	-1806 Jan 11 j 06:49	6°♄46'18	0°40'21
min. Earth dist.	-1812 May 10 j 17:05	2°♄56'03	9.14028 AU	max. Earth dist.	-1806 Jan 10 j 21:43	6°♄43'30	10.62451 AU
	-1812 Jun 29 j 17:39	30°♄		morning rise	-1806 Jan 28 j 08:42	8°♄51'48	
direct	-1812 Jul 20 j 10:02	29°♄39'43		retrograde	-1806 May 13 j 17:12	16°♄33'34	
	-1812 Aug 09 j 21:35	0°♄		opposition	-1806 Jul 23 j 01:34	13°♄08'19	-1°-7'-56
evening set	-1812 Oct 29 j 06:42	6°♄36'47		min. Earth dist.	-1806 Jul 23 j 08:23	13°♄07'00	8.55614 AU
conjunction	-1812 Nov 14 j 18:03	8°♄31'53	1°34'54	direct	-1806 Sep 29 j 05:56	9°♄47'21	
minimum elong	-1812 Nov 14 j 18:05	8°♄31'53	1°34'54	evening set	-1805 Jan 07 j 00:31	17°♄12'10	
max. Earth dist.	-1812 Nov 14 j 06:26	8°♄28'28	11.11917 AU	conjunction	-1805 Jan 24 j 01:16	19°♄18'59	-1°-8'-46
morning rise	-1812 Dec 01 j 05:42	10°♄27'06		minimum elong	-1805 Jan 24 j 01:13	19°♄18'58	1°08'48
	-1811 Jan 15 j 01:55	15°♄		max. Earth dist.	-1805 Jan 23 j 18:31	19°♄16'53	10.48825 AU
retrograde	-1811 Mar 12 j 08:51	17°♄26'44		morning rise	-1805 Feb 10 j 06:32	21°♄27'18	
	-1811 May 10 j 13:54	15°♄		retrograde	-1805 May 27 j 10:48	29°♄20'22	
opposition	-1811 May 22 j 07:44	14°♄08'57	1°42'30	opposition	-1805 Aug 05 j 09:22	25°♄53'27	-1°-41'-58
min. Earth dist.	-1811 May 22 j 18:04	14°♄07'03	9.09328 AU	min. Earth dist.	-1805 Aug 05 j 13:44	25°♄52'35	8.41977 AU
direct	-1811 Aug 01 j 01:53	10°♄51'03		direct	-1805 Oct 11 j 23:44	22°♄31'17	
	-1811 Oct 14 j 15:15	15°♄			-1804 Jan 19 j 09:43	0°♄	
evening set	-1811 Nov 09 j 10:54	17°♄48'52		evening set	-1804 Jan 20 j 03:30	0°♄05'31	
conjunction	-1811 Nov 25 j 23:29	19°♄45'01	1°12'22	conjunction	-1804 Feb 06 j 07:29	2°♄15'08	-1°-34'-34
minimum elong	-1811 Nov 25 j 23:32	19°♄45'01	1°12'20	minimum elong	-1804 Feb 06 j 07:26	2°♄15'07	1°34'37
max. Earth dist.	-1811 Nov 25 j 11:56	19°♄41'36	11.05990 AU	max. Earth dist.	-1804 Feb 06 j 02:51	2°♄13'40	10.35263 AU
morning rise	-1811 Dec 12 j 13:05	21°♄41'32		morning rise	-1804 Feb 23 j 16:22	4°♄26'21	
retrograde	-1810 Mar 24 j 10:27	28°♄46'54		retrograde	-1804 Jun 09 j 13:38	12°♄30'36	
opposition	-1810 Jun 03 j 10:45	25°♄27'58	1°13'01	opposition	-1804 Aug 18 j 00:16	9°♄02'09	-2°-11'-50
min. Earth dist.	-1810 Jun 03 j 20:41	25°♄26'07	9.02133 AU	min. Earth dist.	-1804 Aug 18 j 02:26	9°♄01'43	8.28761 AU
direct	-1810 Aug 12 j 19:53	22°♄09'58		direct	-1804 Oct 24 j 01:46	5°♄38'41	
evening set	-1810 Nov 20 j 18:41	29°♄10'08		evening set	-1803 Feb 01 j 18:35	13°♄22'58	
	-1810 Nov 27 j 20:43	0°♄			-1803 Feb 14 j 11:40	15°♄	
conjunction	-1810 Dec 07 j 09:00	1°♄07'46	0°46'41	conjunction	-1803 Feb 19 j 02:05	15°♄35'27	-1°-56'-4
minimum elong	-1810 Dec 07 j 09:02	1°♄07'46	0°46'39	minimum elong	-1803 Feb 19 j 02:02	15°♄35'26	1°56'06
max. Earth dist.	-1810 Dec 06 j 21:29	1°♄04'20	10.97707 AU	max. Earth dist.	-1803 Feb 18 j 23:23	15°♄34'34	10.22456 AU
morning rise	-1810 Dec 24 j 01:04	3°♄06'01		morning rise	-1803 Mar 08 j 14:43	17°♄49'33	
retrograde	-1809 Apr 05 j 19:46	10°♄18'34		retrograde	-1803 Jun 24 j 00:42	26°♄04'04	
opposition	-1809 Jun 15 j 18:06	6°♄58'17	0°40'05	opposition	-1803 Aug 31 j 22:04	22°♄34'21	-2°-35'-25
min. Earth dist.	-1809 Jun 16 j 03:48	6°♄56'29	8.92747 AU				



# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 9

Attention, astronomical year style is used: The year -1803 in astronomical counting style is the year 1804 BCE in historical counting style.

min. Earth dist.	-1803 Aug 31 j 22:26	22° <del>34</del> '17	8.16657 AU	conjunction	-1796 Jun 03 j 04:07	25° <del>8</del> 46'34	0°-58'-31
direct	-1803 Nov 06 j 12:11	19° <del>30</del> '09'31		minimum elong	-1796 Jun 03 j 04:09	25° <del>8</del> 46'35	0°58'30
evening set	-1802 Feb 15 j 21:44	27° <del>30</del> '03'56		max. Earth dist.	-1796 Jun 03 j 17:45	25° <del>8</del> 51'00	10.03527 AU
				morning rise	-1796 Jun 21 j 07:27	28° <del>8</del> 07'13	
conjunction	-1802 Mar 05 j 09:01	29° <del>30</del> '19'10	-2°-11'-36		-1796 Jul 06 j 10:42	0° <del>II</del>	
minimum elong	-1802 Mar 05 j 08:59	29° <del>30</del> '19'09	2°11'38	retrograde	-1796 Oct 03 j 00:30	6° <del>II</del> 15'17	
max. Earth dist.	-1802 Mar 05 j 08:59	29° <del>30</del> '19'10	10.11114 AU	opposition	-1796 Dec 08 j 09:58	2° <del>II</del> 47'51	0°-53'00
	-1802 Mar 10 j 14:48	0° <del>X</del>		min. Earth dist.	-1796 Dec 08 j 00:08	2° <del>II</del> 49'52	8.08063 AU
morning rise	-1802 Mar 23 j 01:18	1° <del>X</del> 36'00			-1795 Jan 16 j 23:52	30° <del>R</del> 8	
retrograde	-1802 Jul 08 j 17:58	9° <del>X</del> 59'02		direct	-1795 Feb 13 j 20:50	29° <del>8</del> 18'12	
opposition	-1802 Sep 15 j 01:51	6° <del>X</del> 28'22	-2°-50'-39		-1795 Mar 13 j 17:13	0° <del>II</del>	
min. Earth dist.	-1802 Sep 15 j 00:18	6° <del>X</del> 28'42	8.06369 AU	evening set	-1795 May 31 j 00:24	7° <del>II</del> 31'50	
direct	-1802 Nov 20 j 07:53	3° <del>X</del> 02'13					
evening set	-1801 Mar 02 j 12:00	11° <del>X</del> 06'05		conjunction	-1795 Jun 18 j 04:03	9° <del>II</del> 51'04	0°-25'-43
				minimum elong	-1795 Jun 18 j 04:04	9° <del>II</del> 51'04	0°25'42
conjunction	-1801 Mar 20 j 03:23	13° <del>X</del> 23'52	-2°-19'-43	max. Earth dist.	-1795 Jun 18 j 16:46	9° <del>II</del> 55'09	10.13245 AU
minimum elong	-1801 Mar 20 j 03:23	13° <del>X</del> 23'52	2°19'45	morning rise	-1795 Jul 06 j 04:56	12° <del>II</del> 09'22	
max. Earth dist.	-1801 Mar 20 j 06:40	13° <del>X</del> 24'57	10.01940 AU	retrograde	-1795 Oct 16 j 18:33	20° <del>II</del> 06'12	
morning rise	-1801 Apr 06 j 23:14	15° <del>X</del> 43'05		opposition	-1795 Dec 22 j 07:25	16° <del>II</del> 40'25	0°-11'-20
retrograde	-1801 Jul 23 j 14:59	24° <del>X</del> 12'03		min. Earth dist.	-1795 Dec 21 j 22:17	16° <del>II</del> 42'17	8.18858 AU
opposition	-1801 Sep 29 j 10:24	20° <del>X</del> 40'49	-2°-55'-52	direct	-1794 Feb 28 j 09:35	13° <del>II</del> 11'12	
min. Earth dist.	-1801 Sep 29 j 06:31	20° <del>X</del> 41'37	7.98554 AU	asc. node	-1794 Apr 04 j 08:58	14° <del>II</del> 15'08	
direct	-1801 Dec 04 j 12:45	17° <del>X</del> 13'28		evening set	-1794 Jun 14 j 16:35	21° <del>II</del> 18'00	
evening set	-1800 Mar 16 j 11:42	25° <del>X</del> 25'17					
				conjunction	-1794 Jul 02 j 17:23	23° <del>II</del> 34'32	0°07'55
conjunction	-1800 Apr 03 j 07:17	27° <del>X</del> 45'15	-2°-19'-24	minimum elong	-1794 Jul 02 j 17:22	23° <del>II</del> 34'32	0°07'56
minimum elong	-1800 Apr 03 j 07:19	27° <del>X</del> 45'16	2°19'25	behind sun begin	-1794 Jul 02 j 10:52	23° <del>II</del> 32'29	
max. Earth dist.	-1800 Apr 03 j 13:59	27° <del>X</del> 47'28	9.95549 AU	behind sun end	-1794 Jul 02 j 23:53	23° <del>II</del> 36'35	
	-1800 Apr 20 j 10:42	0° <del>Y</del>		max. Earth dist.	-1794 Jul 03 j 04:25	23° <del>II</del> 38'02	10.25006 AU
morning rise	-1800 Apr 21 j 06:26	0° <del>Y</del> 06'22		morning rise	-1794 Jul 20 j 14:28	25° <del>II</del> 49'51	
retrograde	-1800 Aug 06 j 13:36	8° <del>Y</del> 37'56			-1794 Aug 26 j 01:29	0° <del>5</del>	
opposition	-1800 Oct 12 j 22:00	5° <del>Y</del> 06'35	-2°-50'-7	retrograde	-1794 Oct 30 j 03:37	3° <del>5</del> 35'07	
min. Earth dist.	-1800 Oct 12 j 15:43	5° <del>Y</del> 07'53	7.93737 AU	opposition	-1793 Jan 04 j 21:47	0° <del>5</del> 11'01	0°29'47
direct	-1800 Dec 17 j 23:29	1° <del>Y</del> 38'14		min. Earth dist.	-1793 Jan 04 j 13:24	0° <del>5</del> 12'42	8.31336 AU
evening set	-1799 Mar 31 j 18:29	9° <del>Y</del> 55'52			-1793 Jan 07 j 04:33	30° <del>R</del> II	
				direct	-1793 Mar 14 j 15:41	26° <del>II</del> 42'29	
conjunction	-1799 Apr 18 j 17:57	12° <del>Y</del> 17'25	-2°-10'-18		-1793 May 17 j 17:23	0° <del>5</del>	
minimum elong	-1799 Apr 18 j 18:00	12° <del>Y</del> 17'26	2°10'18	evening set	-1793 Jun 28 j 22:27	4° <del>5</del> 41'14	
max. Earth dist.	-1799 Apr 19 j 03:45	12° <del>Y</del> 20'40	9.92390 AU				
morning rise	-1799 May 06 j 19:47	14° <del>Y</del> 39'45		conjunction	-1793 Jul 16 j 19:09	6° <del>5</del> 54'38	0°40'11
retrograde	-1799 Aug 21 j 11:59	23° <del>Y</del> 10'13		minimum elong	-1793 Jul 16 j 19:08	6° <del>5</del> 54'38	0°40'12
opposition	-1799 Oct 27 j 10:31	19° <del>Y</del> 39'14	-2°-33'-24	max. Earth dist.	-1793 Jul 17 j 04:11	6° <del>5</del> 57'28	10.38014 AU
min. Earth dist.	-1799 Oct 27 j 02:04	19° <del>Y</del> 41'00	7.92274 AU	morning rise	-1793 Aug 03 j 11:21	9° <del>5</del> 06'36	
direct	-1798 Jan 01 j 14:39	16° <del>Y</del> 10'07		retrograde	-1793 Nov 12 j 03:55	16° <del>5</del> 40'42	
evening set	-1798 Apr 16 j 04:55	24° <del>Y</del> 30'54		opposition	-1792 Jan 18 j 04:48	13° <del>5</del> 18'15	1°08'03
				min. Earth dist.	-1792 Jan 17 j 21:44	13° <del>5</del> 19'39	8.44666 AU
conjunction	-1798 May 04 j 07:32	26° <del>Y</del> 53'16	-1°-52'-51	direct	-1792 Mar 27 j 13:52	9° <del>5</del> 50'38	
minimum elong	-1798 May 04 j 07:36	26° <del>Y</del> 53'17	1°52'51	evening set	-1792 Jul 11 j 17:03	17° <del>5</del> 40'49	
max. Earth dist.	-1798 May 04 j 19:47	26° <del>Y</del> 57'19	9.92716 AU				
morning rise	-1798 May 22 j 11:11	29° <del>Y</del> 15'59		conjunction	-1792 Jul 29 j 08:48	19° <del>5</del> 50'54	1°09'35
	-1798 May 28 j 04:40	0° <del>8</del>		minimum elong	-1792 Jul 29 j 08:46	19° <del>5</del> 50'53	1°09'36
retrograde	-1798 Sep 05 j 07:08	7° <del>8</del> 41'47		max. Earth dist.	-1792 Jul 29 j 15:44	19° <del>5</del> 53'03	10.51442 AU
opposition	-1798 Nov 10 j 22:02	4° <del>8</del> 11'37	-2°-6'-51	morning rise	-1792 Aug 15 j 19:27	21° <del>5</del> 59'26	
min. Earth dist.	-1798 Nov 10 j 12:14	4° <del>8</del> 13'39	7.94300 AU	retrograde	-1792 Nov 23 j 19:14	29° <del>5</del> 23'26	
direct	-1797 Jan 16 j 08:25	0° <del>8</del> 42'01		opposition	-1791 Jan 30 j 05:06	26° <del>5</del> 02'34	1°41'44
evening set	-1797 May 01 j 15:32	9° <del>8</del> 03'03		min. Earth dist.	-1791 Jan 30 j 00:03	26° <del>5</del> 03'34	8.58077 AU
				direct	-1791 Apr 10 j 04:25	22° <del>5</del> 36'04	
conjunction	-1797 May 19 j 20:07	11° <del>8</del> 25'20	-1°-28'-18		-1791 Jul 22 j 12:55	0° <del>9</del>	
minimum elong	-1797 May 19 j 20:11	11° <del>8</del> 25'21	1°28'18	evening set	-1791 Jul 25 j 00:10	0° <del>9</del> 17'38	
max. Earth dist.	-1797 May 20 j 09:40	11° <del>8</del> 29'47	9.96521 AU				
morning rise	-1797 Jun 07 j 00:23	13° <del>8</del> 47'29		conjunction	-1791 Aug 11 j 10:31	2° <del>9</del> 24'25	1°34'51
	-1797 Jun 16 j 13:29	15° <del>8</del>		minimum elong	-1791 Aug 11 j 10:28	2° <del>9</del> 24'24	1°34'52
retrograde	-1797 Sep 19 j 20:23	22° <del>8</del> 05'33		max. Earth dist.	-1791 Aug 11 j 15:07	2° <del>9</del> 25'49	10.64614 AU
opposition	-1797 Nov 25 j 06:28	18° <del>8</del> 36'36	-1°-32'-29	morning rise	-1791 Aug 28 j 15:34	4° <del>9</del> 29'38	
min. Earth dist.	-1797 Nov 24 j 20:18	18° <del>8</del> 38'42	7.99687 AU	retrograde	-1791 Dec 06 j 04:07	11° <del>9</del> 44'52	
direct	-1796 Jan 31 j 03:21	15° <del>8</del> 06'50		opposition	-1790 Feb 11 j 23:07	8° <del>9</del> 25'26	2°09'36
evening set	-1796 May 15 j 23:08	23° <del>8</del> 25'22		min. Earth dist.	-1790 Feb 11 j 20:42	8° <del>9</del> 25'54	8.70978 AU

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 10

Attention, astronomical year style is used: The year -1790 in astronomical counting style is the year 1791 BCE in historical counting style.

direct	-1790 Apr 23 j 09:52	5°00'06		conjunction	-1784 Oct 30 j 09:14	23°01'25	2°00'20
evening set	-1790 Aug 06 j 20:33	12°03'19		minimum elong	-1784 Oct 30 j 09:16	23°01'26	2°00'19
				max. Earth dist.	-1784 Oct 29 j 23:42	22°05'38	11.13711 AU
conjunction	-1790 Aug 24 j 01:27	14°03'01	1°55'08	morning rise	-1784 Nov 15 j 19:18	24°05'49	
minimum elong	-1790 Aug 24 j 01:24	14°03'00	1°55'09		-1783 Jan 06 j 15:16	0°00'	
max. Earth dist.	-1790 Aug 24 j 02:52	14°03'27	10.77014 AU	retrograde	-1783 Feb 24 j 00:38	1°05'44	
	-1790 Aug 27 j 05:40	15°00'			-1783 Apr 15 j 07:23	30°00'	
morning rise	-1790 Sep 10 j 01:19	16°03'13		opposition	-1783 May 05 j 16:38	28°03'24	2°17'00
retrograde	-1790 Dec 18 j 05:04	23°04'00		min. Earth dist.	-1783 May 06 j 00:51	28°03'54	9.13084 AU
opposition	-1789 Feb 24 j 11:18	20°02'44	2°30'56	direct	-1783 Jul 15 j 23:32	25°01'43	
min. Earth dist.	-1789 Feb 24 j 11:19	20°02'43	8.82876 AU		-1783 Oct 04 j 23:37	0°00'	
direct	-1789 May 06 j 07:50	17°00'43		evening set	-1783 Oct 25 j 00:30	2°00'12	
evening set	-1789 Aug 19 j 06:50	24°02'56					
				conjunction	-1783 Nov 10 j 11:53	4°00'23	1°43'19
conjunction	-1789 Sep 05 j 06:40	26°03'02	2°09'56	minimum elong	-1783 Nov 10 j 11:55	4°00'24	1°43'18
minimum elong	-1789 Sep 05 j 06:38	26°03'02	2°09'58	max. Earth dist.	-1783 Nov 10 j 02:05	4°00'43	11.11559 AU
max. Earth dist.	-1789 Sep 05 j 04:57	26°03'02	10.88180 AU	morning rise	-1783 Nov 26 j 22:51	6°00'23	
morning rise	-1789 Sep 22 j 02:00	28°03'02		retrograde	-1782 Mar 07 j 19:42	13°00'37	
	-1789 Oct 05 j 03:22	0°00'		opposition	-1782 May 17 j 15:59	9°04'23	1°53'45
retrograde	-1789 Dec 30 j 00:27	5°00'32		min. Earth dist.	-1782 May 18 j 00:49	9°04'57	9.09640 AU
opposition	-1788 Mar 07 j 18:42	2°00'14	2°45'21	direct	-1782 Jul 27 j 14:18	6°00'24	
min. Earth dist.	-1788 Mar 07 j 20:19	2°00'14	8.93310 AU	evening set	-1782 Nov 05 j 03:59	13°00'21	
	-1788 Apr 09 j 12:30	30°00'00			-1782 Nov 19 j 03:55	15°00'	
direct	-1788 May 18 j 00:52	28°02'51					
	-1788 Jun 24 j 22:32	0°00'		conjunction	-1782 Nov 21 j 16:03	15°00'17	1°22'17
evening set	-1788 Aug 30 j 07:48	6°00'10		minimum elong	-1782 Nov 21 j 16:06	15°00'17	1°22'15
				max. Earth dist.	-1782 Nov 21 j 05:06	15°00'14	11.06949 AU
conjunction	-1788 Sep 16 j 03:23	8°00'08	2°19'03	morning rise	-1782 Dec 08 j 04:47	17°00'13	
minimum elong	-1788 Sep 16 j 03:22	8°00'08	2°19'04	retrograde	-1781 Mar 19 j 17:52	24°00'16	
max. Earth dist.	-1788 Sep 15 j 23:56	8°00'07	10.97692 AU	opposition	-1781 May 29 j 17:55	20°00'58	1°25'55
morning rise	-1788 Oct 02 j 18:51	10°00'06		min. Earth dist.	-1781 May 30 j 03:38	20°00'56	9.03800 AU
retrograde	-1787 Jan 09 j 18:02	17°00'03		direct	-1781 Aug 08 j 06:45	17°00'39	
opposition	-1787 Mar 19 j 22:11	13°00'46	2°52'46	evening set	-1781 Nov 16 j 10:09	24°00'39	
min. Earth dist.	-1787 Mar 20 j 01:03	13°00'46	9.01894 AU				
direct	-1787 May 30 j 09:24	10°00'24		conjunction	-1781 Dec 02 j 23:35	26°00'36	0°57'49
evening set	-1787 Sep 11 j 01:04	17°00'36		minimum elong	-1781 Dec 02 j 23:37	26°00'36	0°57'47
				max. Earth dist.	-1781 Dec 02 j 12:04	26°00'32	11.00038 AU
conjunction	-1787 Sep 27 j 17:16	19°00'33	2°22'27	morning rise	-1781 Dec 19 j 14:44	28°00'33	
minimum elong	-1787 Sep 27 j 17:16	19°00'33	2°22'28		-1780 Jan 01 j 06:32	0°00'	
max. Earth dist.	-1787 Sep 27 j 12:37	19°00'31	11.05210 AU	retrograde	-1780 Mar 30 j 22:51	5°00'43	
morning rise	-1787 Oct 14 j 05:47	21°00'29		opposition	-1780 Jun 09 j 23:37	2°00'23	0°54'17
retrograde	-1786 Jan 21 j 07:49	28°00'23		min. Earth dist.	-1780 Jun 10 j 09:17	2°00'21	8.95771 AU
opposition	-1786 Mar 31 j 22:34	25°00'06	2°53'20		-1780 Jul 15 j 22:11	30°00'00	
min. Earth dist.	-1786 Apr 01 j 03:30	25°00'06	9.08335 AU	direct	-1780 Aug 19 j 01:44	29°00'04	
direct	-1786 Jun 11 j 11:34	21°00'46			-1780 Sep 21 j 10:39	0°00'	
evening set	-1786 Sep 22 j 12:06	28°00'52		evening set	-1780 Nov 26 j 20:46	6°00'07	
	-1786 Oct 02 j 05:38	0°00'					
				conjunction	-1780 Dec 13 j 12:15	8°00'06	0°30'40
conjunction	-1786 Oct 09 j 01:40	0°00'47	2°20'17	minimum elong	-1780 Dec 13 j 12:16	8°00'06	0°30'37
minimum elong	-1786 Oct 09 j 01:41	0°00'47	2°20'16	max. Earth dist.	-1780 Dec 13 j 01:53	8°00'02	10.91055 AU
max. Earth dist.	-1786 Oct 08 j 18:44	0°00'45	11.10484 AU	morning rise	-1780 Dec 30 j 06:08	10°00'05	
morning rise	-1786 Oct 25 j 12:24	2°00'42		retrograde	-1779 Apr 12 j 10:36	17°00'23	
retrograde	-1785 Feb 01 j 20:53	9°00'35		opposition	-1779 Jun 22 j 09:55	14°00'01	0°19'46
opposition	-1785 Apr 12 j 21:05	6°00'19	2°47'18	min. Earth dist.	-1779 Jun 22 j 18:22	14°00'00	8.85829 AU
min. Earth dist.	-1785 Apr 13 j 04:08	6°00'17	9.12418 AU	direct	-1779 Aug 30 j 23:28	10°00'42	
direct	-1785 Jun 23 j 10:25	2°00'59		evening set	-1779 Dec 08 j 14:02	17°00'50	
evening set	-1785 Oct 03 j 18:32	10°00'11					
				conjunction	-1779 Dec 25 j 07:53	19°00'50	0°01'45
conjunction	-1785 Oct 20 j 06:21	11°00'56	2°12'48	minimum elong	-1779 Dec 25 j 07:53	19°00'50	0°01'42
minimum elong	-1785 Oct 20 j 06:23	11°00'56	2°12'46	behind sun begin	-1779 Dec 25 j 00:52	19°00'48	
max. Earth dist.	-1785 Oct 19 j 21:20	11°00'53	11.13346 AU	behind sun end	-1779 Dec 25 j 14:54	19°00'53	
morning rise	-1785 Nov 05 j 16:21	13°00'50		max. Earth dist.	-1779 Dec 24 j 22:42	19°00'48	10.80315 AU
retrograde	-1784 Feb 13 j 08:42	20°00'43		morning rise	-1778 Jan 11 j 04:47	21°00'52	
opposition	-1784 Apr 23 j 18:45	17°00'26	2°35'02	desc. node	-1778 Jan 15 j 23:55	22°00'26	
min. Earth dist.	-1784 Apr 24 j 02:54	17°00'25	9.14016 AU	retrograde	-1778 Apr 25 j 07:55	29°00'19	
direct	-1784 Jul 04 j 05:38	14°00'07		opposition	-1778 Jul 05 j 01:38	25°00'56	0°-16'-25
evening set	-1784 Oct 13 j 22:03	21°00'06		min. Earth dist.	-1778 Jul 05 j 08:43	25°00'55	8.74350 AU

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 11

Attention, astronomical year style is used: The year -1778 in astronomical counting style is the year 1779 BCE in historical counting style.

direct	-1778 Sep 12 j 01:44	22° $\mathbb{X}$ 37'23		min. Earth dist.	-1772 Sep 22 j 15:33	14° $\mathbb{X}$ 57'13	8.03602 AU
evening set	-1778 Dec 20 j 15:31	29° $\mathbb{X}$ 50'53		direct	-1772 Nov 27 j 21:53	11° $\mathbb{X}$ 30'21	
	-1778 Dec 21 j 21:52	0° $\mathbb{Z}$		evening set	-1771 Mar 10 j 13:23	19° $\mathbb{X}$ 38'08	
conjunction	-1777 Jan 06 j 11:54	1° $\mathbb{Z}$ 53'58	0°-27'-58	conjunction	-1771 Mar 28 j 07:00	21° $\mathbb{X}$ 56'57	-2°-20'-27
minimum elong	-1777 Jan 06 j 11:53	1° $\mathbb{Z}$ 53'57	0°28'01	minimum elong	-1771 Mar 28 j 07:01	21° $\mathbb{X}$ 56'58	2°20'28
max. Earth dist.	-1777 Jan 06 j 03:21	1° $\mathbb{Z}$ 51'21	10.68250 AU	max. Earth dist.	-1771 Mar 28 j 11:44	21° $\mathbb{X}$ 58'31	9.99848 AU
morning rise	-1777 Jan 23 j 12:11	3° $\mathbb{Z}$ 58'17		morning rise	-1771 Apr 15 j 04:34	24° $\mathbb{X}$ 17'03	
retrograde	-1777 May 08 j 13:21	11° $\mathbb{Z}$ 35'26			-1771 Jun 04 j 14:20	0° $\mathbb{Y}$	
opposition	-1777 Jul 17 j 23:56	8° $\mathbb{Z}$ 11'10	0°-52'-56	retrograde	-1771 Jul 31 j 17:17	2° $\mathbb{Y}$ 47'06	
min. Earth dist.	-1777 Jul 18 j 05:57	8° $\mathbb{Z}$ 10'01	8.61814 AU		-1771 Sep 28 j 08:46	30° $\mathbb{R}$ $\mathbb{X}$	
direct	-1777 Sep 24 j 08:35	4° $\mathbb{Z}$ 51'00		opposition	-1771 Oct 07 j 05:04	29° $\mathbb{X}$ 16'22	-2°-53'-38
evening set	-1776 Jan 02 j 02:36	12° $\mathbb{Z}$ 12'08		min. Earth dist.	-1771 Oct 07 j 00:09	29° $\mathbb{X}$ 17'23	7.97204 AU
				direct	-1771 Dec 12 j 05:16	25° $\mathbb{X}$ 48'59	
conjunction	-1776 Jan 19 j 01:48	14° $\mathbb{Z}$ 17'44	0°-57'-5		-1770 Feb 19 j 22:43	0° $\mathbb{Y}$	
minimum elong	-1776 Jan 19 j 01:46	14° $\mathbb{Z}$ 17'43	0°57'07	evening set	-1770 Mar 25 j 16:54	4° $\mathbb{Y}$ 03'37	
max. Earth dist.	-1776 Jan 18 j 18:28	14° $\mathbb{Z}$ 15'27	10.55376 AU				
morning rise	-1776 Feb 05 j 05:40	16° $\mathbb{Z}$ 24'47		conjunction	-1770 Apr 12 j 14:29	6° $\mathbb{Y}$ 24'20	-2°-15'-4
retrograde	-1776 May 21 j 02:27	24° $\mathbb{Z}$ 12'53		minimum elong	-1770 Apr 12 j 14:31	6° $\mathbb{Y}$ 24'20	2°15'05
opposition	-1776 Jul 30 j 05:05	20° $\mathbb{Z}$ 47'08	-1°-28'-4	max. Earth dist.	-1770 Apr 12 j 21:31	6° $\mathbb{Y}$ 26'39	9.94972 AU
min. Earth dist.	-1776 Jul 30 j 09:57	20° $\mathbb{Z}$ 46'11	8.48775 AU	morning rise	-1770 Apr 30 j 15:10	8° $\mathbb{Y}$ 46'00	
direct	-1776 Oct 05 j 23:51	17° $\mathbb{Z}$ 25'59		retrograde	-1770 Aug 15 j 15:41	17° $\mathbb{Y}$ 16'37	
evening set	-1775 Jan 14 j 00:47	24° $\mathbb{Z}$ 55'56		opposition	-1770 Oct 21 j 17:08	13° $\mathbb{Y}$ 45'55	-2°-41'-33
				min. Earth dist.	-1770 Oct 21 j 10:48	13° $\mathbb{Y}$ 47'14	7.93952 AU
conjunction	-1775 Jan 31 j 03:12	27° $\mathbb{Z}$ 04'14	-1°-24'-10	direct	-1770 Dec 26 j 18:55	10° $\mathbb{Y}$ 17'29	
minimum elong	-1775 Jan 31 j 03:09	27° $\mathbb{Z}$ 04'13	1°24'12	evening set	-1769 Apr 10 j 01:34	18° $\mathbb{Y}$ 36'30	
max. Earth dist.	-1775 Jan 30 j 22:10	27° $\mathbb{Z}$ 02'39	10.42264 AU				
morning rise	-1775 Feb 17 j 10:35	29° $\mathbb{Z}$ 14'05		conjunction	-1769 Apr 28 j 02:40	20° $\mathbb{Y}$ 58'24	-2°-1'-6
	-1775 Feb 23 j 16:55	0° $\mathbb{Z}$		minimum elong	-1769 Apr 28 j 02:44	20° $\mathbb{Y}$ 58'25	2°01'06
retrograde	-1775 Jun 04 j 00:38	7° $\mathbb{Z}$ 13'15		max. Earth dist.	-1769 Apr 28 j 11:47	21° $\mathbb{Y}$ 01'24	9.93442 AU
opposition	-1775 Aug 12 j 16:57	3° $\mathbb{Z}$ 46'03	-1°-59'-52	morning rise	-1769 May 16 j 05:44	23° $\mathbb{Y}$ 20'52	
min. Earth dist.	-1775 Aug 12 j 20:00	3° $\mathbb{Z}$ 45'27	8.35826 AU		-1769 Jul 16 j 13:46	0° $\mathbb{Z}$	
direct	-1775 Oct 18 j 23:53	0° $\mathbb{Z}$ 23'45		retrograde	-1769 Aug 30 j 11:18	1° $\mathbb{Z}$ 48'22	
evening set	-1774 Jan 27 j 10:42	8° $\mathbb{Z}$ 03'17			-1769 Oct 14 j 22:03	30° $\mathbb{R}$ $\mathbb{Y}$	
				opposition	-1769 Nov 05 j 04:47	28° $\mathbb{Y}$ 18'06	-2°-19'-4
conjunction	-1774 Feb 13 j 16:36	10° $\mathbb{Z}$ 14'21	-1°-47'-38	min. Earth dist.	-1769 Nov 04 j 21:13	28° $\mathbb{Y}$ 19'40	7.94113 AU
minimum elong	-1774 Feb 13 j 16:33	10° $\mathbb{Z}$ 14'20	1°47'40	direct	-1768 Jan 10 j 12:37	24° $\mathbb{Y}$ 48'50	
max. Earth dist.	-1774 Feb 13 j 14:28	10° $\mathbb{Z}$ 13'40	10.29530 AU		-1768 Mar 29 j 18:33	0° $\mathbb{Z}$	
morning rise	-1774 Mar 03 j 03:28	12° $\mathbb{Z}$ 27'01		evening set	-1768 Apr 24 j 11:56	3° $\mathbb{Z}$ 09'25	
	-1774 Mar 24 j 08:30	15° $\mathbb{Z}$					
retrograde	-1774 Jun 18 j 08:16	20° $\mathbb{Z}$ 36'40		conjunction	-1768 May 12 j 15:40	5° $\mathbb{Z}$ 31'40	-1°-39'-26
opposition	-1774 Aug 26 j 11:43	17° $\mathbb{Z}$ 08'08	-2°-26'-16	minimum elong	-1768 May 12 j 15:44	5° $\mathbb{Z}$ 31'41	1°39'26
min. Earth dist.	-1774 Aug 26 j 12:24	17° $\mathbb{Z}$ 08'00	8.23577 AU	max. Earth dist.	-1768 May 13 j 02:30	5° $\mathbb{Z}$ 35'13	9.95376 AU
	-1774 Sep 24 j 08:59	15° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-1768 May 30 j 19:57	7° $\mathbb{Z}$ 54'02	
direct	-1774 Nov 01 j 06:38	13° $\mathbb{Z}$ 44'35			-1768 Aug 07 j 02:01	15° $\mathbb{Z}$	
	-1774 Dec 08 j 09:08	15° $\mathbb{Z}$		retrograde	-1768 Sep 13 j 01:30	16° $\mathbb{Z}$ 15'05	
evening set	-1773 Feb 10 j 08:23	21° $\mathbb{Z}$ 33'58			-1768 Oct 20 j 07:44	15° $\mathbb{R}$ $\mathbb{Z}$	
				opposition	-1768 Nov 18 j 14:08	12° $\mathbb{Z}$ 45'38	-1°-47'-51
conjunction	-1773 Feb 27 j 18:00	23° $\mathbb{Z}$ 47'46	-2°-5'-48	min. Earth dist.	-1768 Nov 18 j 05:19	12° $\mathbb{Z}$ 47'28	7.97669 AU
minimum elong	-1773 Feb 27 j 17:58	23° $\mathbb{Z}$ 47'45	2°05'50	direct	-1767 Jan 24 j 07:53	9° $\mathbb{Z}$ 15'53	
max. Earth dist.	-1773 Feb 27 j 18:32	23° $\mathbb{Z}$ 47'57	10.17789 AU		-1767 Apr 18 j 20:53	15° $\mathbb{Z}$	
morning rise	-1773 Mar 17 j 08:25	26° $\mathbb{Z}$ 03'11		evening set	-1767 May 09 j 20:27	17° $\mathbb{Z}$ 35'10	
	-1773 Apr 19 j 20:11	0° $\mathbb{X}$					
retrograde	-1773 Jul 02 j 22:57	4° $\mathbb{X}$ 22'01		conjunction	-1767 May 28 j 01:24	19° $\mathbb{Z}$ 56'48	-1°-11'-43
opposition	-1773 Sep 09 j 12:44	0° $\mathbb{X}$ 52'24	-2°-45'-9	minimum elong	-1767 May 28 j 01:28	19° $\mathbb{Z}$ 56'49	1°11'43
min. Earth dist.	-1773 Sep 09 j 11:06	0° $\mathbb{X}$ 52'43	8.12620 AU	max. Earth dist.	-1767 May 28 j 13:29	20° $\mathbb{Z}$ 00'45	10.00611 AU
	-1773 Sep 20 j 10:09	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-1767 Jun 15 j 05:22	22° $\mathbb{Z}$ 18'06	
direct	-1773 Nov 14 j 21:56	27° $\mathbb{Z}$ 27'31			-1767 Sep 04 j 04:25	0° $\mathbb{I}$	
	-1772 Jan 07 j 06:29	0° $\mathbb{X}$		retrograde	-1767 Sep 27 j 08:11	0° $\mathbb{I}$ 30'10	
evening set	-1772 Feb 24 j 17:44	5° $\mathbb{X}$ 26'34			-1767 Oct 20 j 14:25	30° $\mathbb{R}$ $\mathbb{Z}$	
				opposition	-1767 Dec 02 j 19:15	27° $\mathbb{Z}$ 01'52	-1°-10'-20
conjunction	-1772 Mar 13 j 07:17	7° $\mathbb{X}$ 43'02	-2°-17'-9	min. Earth dist.	-1767 Dec 02 j 09:39	27° $\mathbb{Z}$ 03'52	8.04362 AU
minimum elong	-1772 Mar 13 j 07:16	7° $\mathbb{X}$ 43'01	2°17'10	direct	-1766 Feb 08 j 01:45	23° $\mathbb{Z}$ 31'57	
max. Earth dist.	-1772 Mar 13 j 09:54	7° $\mathbb{X}$ 43'52	10.07663 AU		-1766 May 10 j 12:42	0° $\mathbb{I}$	
morning rise	-1772 Mar 31 j 01:20	10° $\mathbb{X}$ 00'58		evening set	-1766 May 24 j 23:53	1° $\mathbb{I}$ 47'22	
retrograde	-1772 Jul 16 j 18:54	18° $\mathbb{X}$ 26'53					
opposition	-1772 Sep 22 j 18:56	14° $\mathbb{X}$ 56'31	-2°-54'-41	conjunction	-1766 Jun 12 j 04:25	4° $\mathbb{I}$ 07'29	0°-40'-1

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 12

Attention, astronomical year style is used: The year -1766 in astronomical counting style is the year 1767 BCE in historical counting style.

minimum elong	-1766 Jun 12 j 04:27	4°II07'29	0°40'01	evening set	-1760 Aug 13 j 07:13	19°Ω33'58	
max. Earth dist.	-1766 Jun 12 j 16:55	4°II11'31	10.08770 AU				
morning rise	-1766 Jun 30 j 06:32	6°II26'48		conjunction	-1760 Aug 30 j 09:24	21°Ω36'03	2°04'06
retrograde	-1766 Oct 11 j 06:23	14°II28'15		minimum elong	-1760 Aug 30 j 09:22	21°Ω36'02	2°04'08
opposition	-1766 Dec 16 j 18:42	11°II01'22	0°-29'-22	max. Earth dist.	-1760 Aug 30 j 11:01	21°Ω36'32	10.83296 AU
min. Earth dist.	-1766 Dec 16 j 09:09	11°II03'19	8.13727 AU	morning rise	-1760 Sep 16 j 06:35	23°Ω36'41	
direct	-1765 Feb 22 j 14:53	7°II31'34			-1760 Nov 26 j 05:08	0°൬	
evening set	-1765 Jun 08 j 19:37	15°II41'05		retrograde	-1760 Dec 24 j 06:46	0°൬40'36	
					-1759 Jan 21 j 17:57	30°℞Ω	
conjunction	-1765 Jun 26 j 22:03	17°II58'53	0°-6'-38	opposition	-1759 Mar 02 j 19:44	27°Ω22'34	2°39'50
minimum elong	-1765 Jun 26 j 22:04	17°II58'53	0°06'37	min. Earth dist.	-1759 Mar 02 j 19:22	27°Ω22'38	8.88969 AU
behind sun begin	-1765 Jun 26 j 15:13	17°II56'43		direct	-1759 May 12 j 22:19	23°Ω58'54	
behind sun end	-1765 Jun 27 j 04:54	18°II01'03			-1759 Aug 13 j 19:58	0°൬	
max. Earth dist.	-1765 Jun 27 j 09:58	18°II02'41	10.19283 AU	evening set	-1759 Aug 25 j 11:37	1°൬19'40	
morning rise	-1765 Jul 14 j 20:52	20°II15'32					
asc. node	-1765 Sep 09 j 13:44	26°II16'01		conjunction	-1759 Sep 11 j 09:05	3°൬19'12	2°15'42
retrograde	-1765 Oct 24 j 20:18	28°II05'37		minimum elong	-1759 Sep 11 j 09:03	3°൬19'11	2°15'43
opposition	-1765 Dec 30 j 11:40	24°II40'18	0°12'13	max. Earth dist.	-1759 Sep 11 j 08:03	3°൬18'54	10.93996 AU
min. Earth dist.	-1765 Dec 30 j 03:12	24°II42'01	8.25140 AU	morning rise	-1759 Sep 28 j 02:05	5°൬17'28	
direct	-1764 Mar 07 j 22:37	21°II10'58		retrograde	-1758 Jan 05 j 00:36	12°൬16'12	
evening set	-1764 Jun 22 j 05:45	29°II13'07		opposition	-1758 Mar 15 j 00:23	8°൬59'05	2°50'15
	-1764 Jun 28 j 12:38	0°☾		min. Earth dist.	-1758 Mar 15 j 02:29	8°൬58'42	8.98840 AU
				direct	-1758 May 25 j 08:16	5°൬36'44	
conjunction	-1764 Jul 10 j 04:31	1°☾27'59	0°26'27	evening set	-1758 Sep 06 j 07:53	12°൬50'45	
minimum elong	-1764 Jul 10 j 04:29	1°☾27'59	0°26'29				
max. Earth dist.	-1764 Jul 10 j 14:44	1°☾31'12	10.31470 AU	conjunction	-1758 Sep 23 j 01:22	14°൬48'14	2°21'34
morning rise	-1764 Jul 27 j 22:51	3°☾41'28		minimum elong	-1758 Sep 23 j 01:21	14°൬48'14	2°21'34
retrograde	-1764 Nov 05 j 23:59	11°☾20'17		max. Earth dist.	-1758 Sep 22 j 21:25	14°൬47'04	11.02857 AU
opposition	-1763 Jan 11 j 21:37	7°☾56'36	0°51'55	morning rise	-1758 Oct 09 j 15:12	16°൬44'39	
min. Earth dist.	-1763 Jan 11 j 14:51	7°☾57'57	8.37910 AU	retrograde	-1757 Jan 16 j 13:55	23°൬39'44	
direct	-1763 Mar 22 j 00:02	4°☾28'01		opposition	-1757 Mar 27 j 01:29	20°൬23'15	2°53'46
evening set	-1763 Jul 06 j 04:58	12°☾21'54		min. Earth dist.	-1757 Mar 27 j 05:18	20°൬22'32	9.06684 AU
				direct	-1757 Jun 06 j 14:04	17°൬02'07	
conjunction	-1763 Jul 23 j 22:56	14°☾33'30	0°57'15	evening set	-1757 Sep 17 j 21:18	24°൬10'22	
minimum elong	-1763 Jul 23 j 22:54	14°☾33'29	0°57'16				
max. Earth dist.	-1763 Jul 24 j 06:30	14°☾35'51	10.44633 AU	conjunction	-1757 Oct 04 j 11:51	26°൬06'19	2°21'48
morning rise	-1763 Aug 10 j 12:07	16°☾43'35		minimum elong	-1757 Oct 04 j 11:51	26°൬06'20	2°21'47
retrograde	-1763 Nov 18 j 17:24	24°☾11'49		max. Earth dist.	-1757 Oct 04 j 06:16	26°൬04'41	11.09562 AU
opposition	-1762 Jan 25 j 00:33	20°☾49'45	1°27'44	morning rise	-1757 Oct 20 j 23:19	28°൬01'25	
min. Earth dist.	-1762 Jan 24 j 19:10	20°☾50'48	8.51334 AU		-1757 Nov 07 j 18:56	0°♅	
direct	-1762 Apr 04 j 18:38	17°☾22'09		retrograde	-1756 Jan 28 j 04:38	4°♅54'26	
evening set	-1762 Jul 19 j 16:37	25°☾07'23		opposition	-1756 Apr 07 j 00:28	1°♅38'16	2°50'33
				min. Earth dist.	-1756 Apr 07 j 05:15	1°♅37'23	9.12219 AU
conjunction	-1762 Aug 06 j 05:19	27°☾15'37	1°24'24		-1756 Apr 30 j 06:55	30°℞൬	
minimum elong	-1762 Aug 06 j 05:15	27°☾15'36	1°24'25	direct	-1756 Jun 17 j 15:02	28°൬18'15	
max. Earth dist.	-1762 Aug 06 j 10:25	27°☾17'11	10.58083 AU		-1756 Aug 03 j 11:47	0°♅	
morning rise	-1762 Aug 23 j 13:03	29°☾22'19		evening set	-1756 Sep 28 j 05:20	5°♅21'46	
	-1762 Aug 28 j 19:31	0°Ω					
retrograde	-1762 Dec 01 j 04:13	6°Ω41'04		conjunction	-1756 Oct 14 j 17:54	7°♅16'45	2°16'36
opposition	-1761 Feb 06 j 20:41	3°Ω20'30	1°58'13	minimum elong	-1756 Oct 14 j 17:56	7°♅16'46	2°16'35
min. Earth dist.	-1761 Feb 06 j 16:29	3°Ω21'19	8.64721 AU	max. Earth dist.	-1756 Oct 14 j 11:25	7°♅14'51	11.13870 AU
	-1761 Apr 07 j 07:39	30°℞☾		morning rise	-1756 Oct 31 j 03:58	9°♅11'06	
direct	-1761 Apr 18 j 04:03	29°☾54'07		retrograde	-1755 Feb 07 j 17:22	16°♅03'34	
	-1761 Apr 28 j 23:30	0°Ω		opposition	-1755 Apr 18 j 22:17	12°♅47'25	2°40'58
evening set	-1761 Aug 01 j 17:11	7°Ω30'44		min. Earth dist.	-1755 Apr 19 j 04:39	12°♅46'15	9.15255 AU
				direct	-1755 Jun 29 j 09:25	9°♅28'18	
conjunction	-1761 Aug 19 j 00:31	9°Ω35'45	1°46'54	evening set	-1755 Oct 09 j 10:01	16°♅28'20	
minimum elong	-1761 Aug 19 j 00:28	9°Ω35'44	1°46'55				
max. Earth dist.	-1761 Aug 19 j 03:43	9°Ω36'43	10.71162 AU	conjunction	-1755 Oct 25 j 21:23	18°♅22'52	2°06'17
morning rise	-1761 Sep 05 j 02:45	11°Ω39'14		minimum elong	-1755 Oct 25 j 21:25	18°♅22'53	2°06'16
	-1761 Oct 05 j 06:47	15°Ω		max. Earth dist.	-1755 Oct 25 j 12:55	18°♅20'24	11.15627 AU
retrograde	-1761 Dec 13 j 08:13	18°Ω49'50		morning rise	-1755 Nov 11 j 07:11	20°♅17'02	
opposition	-1760 Feb 19 j 10:43	15°Ω30'38	2°22'25	retrograde	-1754 Feb 19 j 07:20	23°♅10'29	
min. Earth dist.	-1760 Feb 19 j 08:00	15°Ω31'09	8.77443 AU	opposition	-1754 Apr 30 j 19:44	23°♅54'03	2°25'25
	-1760 Feb 26 j 03:03	15°℞Ω		min. Earth dist.	-1754 May 01 j 04:14	23°♅52'30	9.15669 AU
direct	-1760 Apr 30 j 04:51	12°Ω05'35		direct	-1754 Jul 11 j 03:37	20°♅35'34	
	-1760 Jun 30 j 20:50	15°Ω		evening set	-1754 Oct 20 j 12:51	27°♅33'29	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 13

Attention, astronomical year style is used: The year -1754 in astronomical counting style is the year 1755 BCE in historical counting style.

conjunction	-1754 Nov 05 j 23:51	29°♄28'07	1°51'14	retrograde	-1748 May 02 j 00:08	6°♄22'51	
minimum elong	-1754 Nov 05 j 23:53	29°♄28'08	1°51'13	opposition	-1748 Jul 11 j 15:13	2°♄59'10	0°-36'-48
max. Earth dist.	-1754 Nov 05 j 13:12	29°♄25'00	11.14736 AU	min. Earth dist.	-1748 Jul 11 j 23:32	2°♄57'35	8.67269 AU
	-1754 Nov 10 j 12:58	0°♄			-1748 Aug 29 j 04:19	30°♄	
morning rise	-1754 Nov 22 j 10:21	1°♄22'38		direct	-1748 Sep 18 j 07:48	29°♄39'10	
retrograde	-1753 Mar 02 j 23:29	8°♄18'39			-1748 Oct 08 j 04:53	0°♄	
opposition	-1753 May 12 j 18:12	5°♄01'37	2°04'26	evening set	-1748 Dec 26 j 22:38	6°♄56'48	
min. Earth dist.	-1753 May 13 j 03:52	4°♄59'51	9.13388 AU				
direct	-1753 Jul 22 j 19:51	1°♄43'34		conjunction	-1747 Jan 12 j 20:42	9°♄01'17	0°-44'-18
evening set	-1753 Oct 31 j 15:30	8°♄40'49		minimum elong	-1747 Jan 12 j 20:40	9°♄01'16	0°44'21
				max. Earth dist.	-1747 Jan 12 j 12:14	8°♄58'40	10.60670 AU
conjunction	-1753 Nov 17 j 03:04	10°♄36'02	1°31'56	morning rise	-1747 Jan 29 j 22:50	11°♄07'07	
minimum elong	-1753 Nov 17 j 03:07	10°♄36'03	1°31'55	retrograde	-1747 May 15 j 09:54	18°♄50'23	
max. Earth dist.	-1753 Nov 16 j 15:55	10°♄32'46	11.11152 AU	opposition	-1747 Jul 24 j 17:04	15°♄24'58	-1°-12'-45
morning rise	-1753 Dec 03 j 14:54	12°♄31'25		min. Earth dist.	-1747 Jul 24 j 23:07	15°♄23'48	8.53817 AU
	-1753 Dec 26 j 04:35	15°♄		direct	-1747 Sep 30 j 19:38	12°♄03'54	
retrograde	-1752 Mar 13 j 20:13	19°♄31'45		evening set	-1746 Jan 08 j 15:42	19°♄29'59	
opposition	-1752 May 23 j 18:46	16°♄13'49	1°38'36				
min. Earth dist.	-1752 May 24 j 04:36	16°♄12'01	9.08426 AU	conjunction	-1746 Jan 25 j 16:43	21°♄37'10	-1°-12'-28
	-1752 Jun 09 j 23:04	15°♄		minimum elong	-1746 Jan 25 j 16:41	21°♄37'09	1°12'31
direct	-1752 Aug 02 j 12:50	12°♄55'55		max. Earth dist.	-1746 Jan 25 j 09:51	21°♄35'01	10.47024 AU
	-1752 Sep 22 j 18:11	15°♄		morning rise	-1746 Feb 11 j 22:23	23°♄45'50	
evening set	-1752 Nov 10 j 20:09	19°♄54'06			-1746 Apr 14 j 00:46	0°♄	
				retrograde	-1746 May 29 j 05:13	1°♄40'23	
conjunction	-1752 Nov 27 j 08:59	21°♄50'26	1°08'55		-1746 Jul 14 j 05:24	30°♄	
minimum elong	-1752 Nov 27 j 09:01	21°♄50'27	1°08'54	opposition	-1746 Aug 07 j 01:53	28°♄13'18	-1°-46'-18
max. Earth dist.	-1752 Nov 26 j 21:40	21°♄47'06	11.04963 AU	min. Earth dist.	-1746 Aug 07 j 06:03	28°♄12'29	8.40208 AU
morning rise	-1752 Dec 13 j 22:47	23°♄47'09		direct	-1746 Oct 13 j 14:28	24°♄51'00	
	-1751 Feb 20 j 14:20	0°♄			-1745 Jan 01 j 09:32	0°♄	
retrograde	-1751 Mar 25 j 23:41	0°♄53'22		evening set	-1745 Jan 21 j 20:15	2°♄26'35	
	-1751 Apr 28 j 22:40	30°♄					
opposition	-1751 Jun 04 j 22:29	27°♄34'20	1°08'36	conjunction	-1745 Feb 08 j 00:30	4°♄36'33	-1°-37'-46
min. Earth dist.	-1751 Jun 05 j 08:22	27°♄32'30	9.00974 AU	minimum elong	-1745 Feb 08 j 00:27	4°♄36'32	1°37'48
direct	-1751 Aug 14 j 05:45	24°♄16'20		max. Earth dist.	-1745 Feb 07 j 19:28	4°♄34'57	10.33542 AU
	-1751 Nov 10 j 22:55	0°♄		morning rise	-1745 Feb 25 j 09:50	6°♄48'09	
evening set	-1751 Nov 22 j 04:40	1°♄17'01		retrograde	-1745 Jun 12 j 09:33	14°♄53'46	
				opposition	-1745 Aug 20 j 17:56	11°♄25'11	-2°-15'-24
conjunction	-1751 Dec 08 j 19:09	3°♄14'53	0°42'54	min. Earth dist.	-1745 Aug 20 j 20:17	11°♄24'43	8.27123 AU
minimum elong	-1751 Dec 08 j 19:11	3°♄14'53	0°42'52	direct	-1745 Oct 26 j 17:16	8°♄01'32	
max. Earth dist.	-1751 Dec 08 j 06:55	3°♄11'15	10.96430 AU		-1744 Jan 29 j 05:24	15°♄	
morning rise	-1751 Dec 25 j 11:38	5°♄13'25		evening set	-1744 Feb 04 j 12:47	15°♄47'11	
retrograde	-1750 Apr 07 j 07:37	12°♄27'01					
opposition	-1750 Jun 17 j 06:37	9°♄06'37	0°35'17	conjunction	-1744 Feb 21 j 20:38	17°♄59'59	-1°-58'-30
min. Earth dist.	-1750 Jun 17 j 16:54	9°♄04'42	8.91349 AU	minimum elong	-1744 Feb 21 j 20:35	17°♄59'58	1°58'32
direct	-1750 Aug 26 j 00:48	5°♄48'12		max. Earth dist.	-1744 Feb 21 j 18:06	17°♄59'10	10.20917 AU
evening set	-1750 Dec 03 j 18:45	12°♄53'02		morning rise	-1744 Mar 10 j 09:41	20°♄14'26	
				retrograde	-1744 Jun 25 j 20:31	28°♄30'08	
conjunction	-1750 Dec 20 j 11:18	14°♄52'47	0°14'41	opposition	-1744 Sep 02 j 16:39	25°♄00'18	-2°-37'-55
minimum elong	-1750 Dec 20 j 11:19	14°♄52'47	0°14'38	min. Earth dist.	-1744 Sep 02 j 17:06	25°♄00'13	8.15251 AU
behind sun begin	-1750 Dec 20 j 08:11	14°♄51'51		direct	-1744 Nov 08 j 06:15	21°♄35'17	
behind sun end	-1750 Dec 20 j 14:27	14°♄53'43		evening set	-1743 Feb 17 j 17:21	29°♄30'57	
max. Earth dist.	-1750 Dec 19 j 23:05	14°♄49'07	10.85907 AU		-1743 Feb 21 j 12:17	0°♄	
morning rise	-1749 Jan 06 j 06:52	16°♄53'28					
retrograde	-1749 Apr 19 j 23:21	24°♄15'53		conjunction	-1743 Mar 07 j 05:08	1°♄46'30	-2°-13'-4
desc. node	-1749 Jun 26 j 22:47	21°♄06'55		minimum elong	-1743 Mar 07 j 05:07	1°♄46'29	2°13'06
opposition	-1749 Jun 29 j 19:57	20°♄53'55	0°00'-16	max. Earth dist.	-1743 Mar 07 j 05:56	1°♄46'45	10.09850 AU
min. Earth dist.	-1749 Jun 30 j 05:50	20°♄52'03	8.79957 AU	morning rise	-1743 Mar 24 j 21:47	4°♄03'37	
direct	-1749 Sep 07 j 02:18	17°♄34'49		retrograde	-1743 Jul 10 j 13:31	12°♄27'31	
evening set	-1749 Dec 15 j 16:11	24°♄45'18		opposition	-1743 Sep 16 j 21:01	8°♄56'45	-2°-51'-50
				min. Earth dist.	-1743 Sep 16 j 19:03	8°♄57'09	8.05278 AU
conjunction	-1748 Jan 01 j 11:20	26°♄47'18	0°-14'-49	direct	-1743 Nov 22 j 03:41	5°♄30'26	
minimum elong	-1748 Jan 01 j 11:20	26°♄47'17	0°14'52	evening set	-1742 Mar 04 j 08:50	13°♄35'19	
behind sun begin	-1748 Jan 01 j 08:26	26°♄46'25					
behind sun end	-1748 Jan 01 j 14:13	26°♄48'10		conjunction	-1742 Mar 22 j 00:45	15°♄53'23	-2°-20'-4
max. Earth dist.	-1748 Jan 01 j 00:41	26°♄44'03	10.73821 AU	minimum elong	-1742 Mar 22 j 00:45	15°♄53'23	2°20'05
morning rise	-1748 Jan 18 j 10:07	28°♄50'26		max. Earth dist.	-1742 Mar 22 j 05:11	15°♄54'50	10.01024 AU
	-1748 Jan 28 j 07:02	0°♄		morning rise	-1742 Apr 08 j 20:53	18°♄12'50	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 14

Attention, astronomical year style is used: The year -1742 in astronomical counting style is the year 1743 BCE in historical counting style.

retrograde	-1742 Jul 25 j 11:00	26° $\text{K}$ 42'15		asc. node	-1735 Feb 13 j 16:49	15° $\text{II}$ 48'59	
opposition	-1742 Oct 01 j 06:01	23° $\text{K}$ 10'56	-2°-55'-35	direct	-1735 Mar 02 j 03:52	15° $\text{II}$ 34'31	
min. Earth dist.	-1742 Oct 01 j 01:17	23° $\text{K}$ 11'55	7.97838 AU	evening set	-1735 Jun 16 j 10:53	23° $\text{II}$ 40'20	
direct	-1742 Dec 06 j 08:02	19° $\text{K}$ 43'28					
evening set	-1741 Mar 19 j 09:17	27° $\text{K}$ 55'58		conjunction	-1735 Jul 04 j 11:20	25° $\text{II}$ 56'32	0°12'23
	-1741 Apr 04 j 04:24	0° $\text{Y}$		minimum elong	-1735 Jul 04 j 11:19	25° $\text{II}$ 56'32	0°12'24
				behind sun begin	-1735 Jul 04 j 06:38	25° $\text{II}$ 55'04	
conjunction	-1741 Apr 06 j 05:21	0° $\text{Y}$ 16'09	-2°-18'-33	behind sun end	-1735 Jul 04 j 16:00	25° $\text{II}$ 58'00	
minimum elong	-1741 Apr 06 j 05:23	0° $\text{Y}$ 16'09	2°18'34	max. Earth dist.	-1735 Jul 04 j 22:38	26° $\text{II}$ 00'07	10.26531 AU
max. Earth dist.	-1741 Apr 06 j 13:09	0° $\text{Y}$ 18'43	9.95036 AU	morning rise	-1735 Jul 22 j 07:53	28° $\text{II}$ 11'28	
morning rise	-1741 Apr 24 j 04:44	2° $\text{Y}$ 37'25			-1735 Aug 06 j 06:39	0° $\text{S}$	
retrograde	-1741 Aug 09 j 10:50	11° $\text{Y}$ 08'58		retrograde	-1735 Oct 31 j 18:46	5° $\text{S}$ 55'24	
opposition	-1741 Oct 15 j 17:46	7° $\text{Y}$ 37'35	-2°-48'-19	opposition	-1734 Jan 06 j 13:34	2° $\text{S}$ 31'29	0°35'09
min. Earth dist.	-1741 Oct 15 j 10:41	7° $\text{Y}$ 39'04	7.93438 AU	min. Earth dist.	-1734 Jan 06 j 04:35	2° $\text{S}$ 33'17	8.32943 AU
direct	-1741 Dec 20 j 18:27	4° $\text{Y}$ 09'06			-1734 Feb 10 j 21:52	30° $\text{R}$ $\text{II}$	
evening set	-1740 Apr 02 j 16:28	12° $\text{Y}$ 27'04		direct	-1734 Mar 16 j 09:16	29° $\text{II}$ 03'06	
					-1734 Apr 18 j 17:13	0° $\text{S}$	
conjunction	-1740 Apr 20 j 16:20	14° $\text{Y}$ 48'45	-2°-8'-17	evening set	-1734 Jun 30 j 15:23	7° $\text{S}$ 00'45	
minimum elong	-1740 Apr 20 j 16:23	14° $\text{Y}$ 48'46	2°08'17				
max. Earth dist.	-1740 Apr 21 j 02:48	14° $\text{Y}$ 52'13	9.92310 AU	conjunction	-1734 Jul 18 j 11:39	9° $\text{S}$ 13'46	0°44'21
morning rise	-1740 May 08 j 18:24	17° $\text{Y}$ 11'10		minimum elong	-1734 Jul 18 j 11:36	9° $\text{S}$ 13'45	0°44'22
retrograde	-1740 Aug 23 j 09:35	25° $\text{Y}$ 41'07		max. Earth dist.	-1734 Jul 18 j 21:34	9° $\text{S}$ 16'52	10.39706 AU
opposition	-1740 Oct 29 j 06:08	22° $\text{Y}$ 10'09	-2°-30'-12	morning rise	-1734 Aug 05 j 03:09	11° $\text{S}$ 25'19	
min. Earth dist.	-1740 Oct 28 j 21:23	22° $\text{Y}$ 11'59	7.92402 AU	retrograde	-1734 Nov 13 j 17:30	18° $\text{S}$ 58'07	
direct	-1739 Jan 03 j 10:23	18° $\text{Y}$ 40'55		opposition	-1733 Jan 19 j 19:41	15° $\text{S}$ 35'52	1°12'52
evening set	-1739 Apr 18 j 02:56	27° $\text{Y}$ 01'42		min. Earth dist.	-1733 Jan 19 j 12:30	15° $\text{S}$ 37'17	8.46437 AU
				direct	-1733 Mar 30 j 06:39	12° $\text{S}$ 08'24	
conjunction	-1739 May 06 j 05:47	29° $\text{Y}$ 24'04	-1°-49'-48	evening set	-1733 Jul 14 j 08:36	19° $\text{S}$ 57'23	
minimum elong	-1739 May 06 j 05:51	29° $\text{Y}$ 24'06	1°49'49				
max. Earth dist.	-1739 May 06 j 18:04	29° $\text{Y}$ 28'07	9.93058 AU	conjunction	-1733 Jul 31 j 23:47	22° $\text{S}$ 07'01	1°13'13
	-1739 May 10 j 18:47	0° $\text{S}$		minimum elong	-1733 Jul 31 j 23:44	22° $\text{S}$ 07'00	1°13'14
morning rise	-1739 May 24 j 09:37	1° $\text{S}$ 46'45		max. Earth dist.	-1733 Aug 01 j 07:12	22° $\text{S}$ 09'18	10.53275 AU
retrograde	-1739 Sep 07 j 03:31	10° $\text{S}$ 11'38		morning rise	-1733 Aug 18 j 09:45	24° $\text{S}$ 15'06	
opposition	-1739 Nov 12 j 17:16	6° $\text{S}$ 41'33	-2°-2'-29		-1733 Oct 14 j 00:38	0° $\text{S}$	
min. Earth dist.	-1739 Nov 12 j 07:43	6° $\text{S}$ 43'32	7.94832 AU	retrograde	-1733 Nov 26 j 08:54	1° $\text{S}$ 37'49	
direct	-1738 Jan 18 j 05:08	3° $\text{S}$ 11'52			-1732 Jan 09 j 17:52	30° $\text{R}$ $\text{S}$	
evening set	-1738 May 03 j 13:00	11° $\text{S}$ 32'33		opposition	-1732 Feb 01 j 19:02	28° $\text{S}$ 17'08	1°45'47
				min. Earth dist.	-1732 Feb 01 j 14:30	28° $\text{S}$ 18'01	8.59955 AU
conjunction	-1738 May 21 j 17:37	13° $\text{S}$ 54'42	-1°-24'-27	direct	-1732 Apr 11 j 18:46	24° $\text{S}$ 50'45	
minimum elong	-1738 May 21 j 17:41	13° $\text{S}$ 54'44	1°24'27		-1732 Jul 04 j 14:08	0° $\text{S}$	
max. Earth dist.	-1738 May 22 j 06:44	13° $\text{S}$ 59'00	9.97247 AU	evening set	-1732 Jul 26 j 14:23	2° $\text{S}$ 31'04	
	-1738 May 30 j 01:04	15° $\text{S}$					
morning rise	-1738 Jun 08 j 21:56	16° $\text{S}$ 16'44		conjunction	-1732 Aug 13 j 00:01	4° $\text{S}$ 37'25	1°37'49
retrograde	-1738 Sep 21 j 14:31	24° $\text{S}$ 33'36		minimum elong	-1732 Aug 12 j 23:58	4° $\text{S}$ 37'24	1°37'50
opposition	-1738 Nov 27 j 01:03	21° $\text{S}$ 04'46	-1°-27'-18	max. Earth dist.	-1732 Aug 13 j 04:00	4° $\text{S}$ 38'37	10.66488 AU
min. Earth dist.	-1738 Nov 26 j 15:17	21° $\text{S}$ 06'48	8.00581 AU	morning rise	-1732 Aug 30 j 04:29	6° $\text{S}$ 42'12	
direct	-1737 Feb 02 j 00:08	17° $\text{S}$ 34'58		retrograde	-1732 Dec 07 j 15:03	13° $\text{S}$ 56'13	
evening set	-1737 May 18 j 19:42	25° $\text{S}$ 52'52		opposition	-1731 Feb 13 j 12:04	10° $\text{S}$ 36'56	2°12'46
				min. Earth dist.	-1731 Feb 13 j 10:12	10° $\text{S}$ 37'18	8.72834 AU
conjunction	-1737 Jun 06 j 00:33	28° $\text{S}$ 13'51	0°-54'-9	direct	-1731 Apr 25 j 00:02	7° $\text{S}$ 11'45	
minimum elong	-1737 Jun 06 j 00:36	28° $\text{S}$ 13'52	0°54'09	evening set	-1731 Aug 08 j 09:19	14° $\text{S}$ 43'46	
max. Earth dist.	-1737 Jun 06 j 13:36	28° $\text{S}$ 18'05	10.04588 AU		-1731 Aug 10 j 16:17	15° $\text{S}$	
	-1737 Jun 19 j 16:35	0° $\text{II}$					
morning rise	-1737 Jun 24 j 03:49	0° $\text{II}$ 34'16		conjunction	-1731 Aug 25 j 13:32	16° $\text{S}$ 47'03	1°57'21
retrograde	-1737 Oct 05 j 16:49	8° $\text{II}$ 41'00		minimum elong	-1731 Aug 25 j 13:29	16° $\text{S}$ 47'02	1°57'22
opposition	-1737 Dec 11 j 03:38	5° $\text{II}$ 13'43	0°-47'-23	max. Earth dist.	-1731 Aug 25 j 14:03	16° $\text{S}$ 47'12	10.78799 AU
min. Earth dist.	-1737 Dec 10 j 17:56	5° $\text{II}$ 15'42	8.09259 AU	morning rise	-1731 Sep 11 j 12:56	18° $\text{S}$ 48'53	
direct	-1736 Feb 16 j 16:12	1° $\text{II}$ 44'05		retrograde	-1731 Dec 19 j 14:45	25° $\text{S}$ 55'40	
evening set	-1736 Jun 01 j 19:52	9° $\text{II}$ 56'52		opposition	-1730 Feb 25 j 23:24	22° $\text{S}$ 37'32	2°33'08
				min. Earth dist.	-1730 Feb 25 j 23:19	22° $\text{S}$ 37'33	8.84584 AU
conjunction	-1736 Jun 19 j 23:17	12° $\text{II}$ 15'49	0°-21'-9	direct	-1730 May 07 j 22:34	19° $\text{S}$ 13'33	
minimum elong	-1736 Jun 19 j 23:18	12° $\text{II}$ 15'49	0°21'09	evening set	-1730 Aug 20 j 18:09	26° $\text{S}$ 37'46	
max. Earth dist.	-1736 Jun 20 j 11:38	12° $\text{II}$ 19'46	10.14570 AU				
morning rise	-1736 Jul 07 j 23:54	14° $\text{II}$ 33'47		conjunction	-1730 Sep 06 j 17:34	28° $\text{S}$ 38'22	2°11'22
retrograde	-1736 Oct 18 j 10:48	22° $\text{II}$ 29'16		minimum elong	-1730 Sep 06 j 17:32	28° $\text{S}$ 38'22	2°11'24
opposition	-1736 Dec 24 j 00:06	19° $\text{II}$ 03'38	0°-5'-40	max. Earth dist.	-1730 Sep 06 j 15:48	28° $\text{S}$ 37'51	10.89771 AU
min. Earth dist.	-1736 Dec 23 j 14:36	19° $\text{II}$ 05'34	8.20285 AU		-1730 Sep 18 j 04:10	0° $\text{np}$	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 15

Attention, astronomical year style is used: The year -1730 in astronomical counting style is the year 1731 BCE in historical counting style.

morning rise	-1730 Sep 23 j 12:26	0° $\mathring{\text{M}}$ 37'39			-1723 Feb 27 j 21:47	15° $\mathring{\text{M}}$	
retrograde	-1730 Dec 31 j 11:50	7° $\mathring{\text{M}}$ 38'41		retrograde	-1723 Mar 09 j 05:39	15° $\mathring{\text{M}}$ 04'14	
opposition	-1729 Mar 10 j 06:04	4° $\mathring{\text{M}}$ 21'23	2°46'35		-1723 Mar 18 j 14:50	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
min. Earth dist.	-1729 Mar 10 j 07:30	4° $\mathring{\text{M}}$ 21'07	8.94774 AU	opposition	-1723 May 19 j 02:55	11° $\mathring{\text{M}}$ 46'06	1°50'05
direct	-1729 May 20 j 12:52	0° $\mathring{\text{M}}$ 58'36		min. Earth dist.	-1723 May 19 j 12:41	11° $\mathring{\text{M}}$ 44'18	9.08844 AU
evening set	-1729 Sep 01 j 18:09	8° $\mathring{\text{M}}$ 15'43		direct	-1723 Jul 28 j 23:58	8° $\mathring{\text{M}}$ 27'31	
					-1723 Nov 02 j 19:26	15° $\mathring{\text{M}}$	
conjunction	-1729 Sep 18 j 13:26	10° $\mathring{\text{M}}$ 14'06	2°19'41	evening set	-1723 Nov 06 j 12:56	15° $\mathring{\text{M}}$ 25'39	
minimum elong	-1729 Sep 18 j 13:24	10° $\mathring{\text{M}}$ 14'06	2°19'42				
max. Earth dist.	-1729 Sep 18 j 10:08	10° $\mathring{\text{M}}$ 13'08	10.99004 AU	conjunction	-1723 Nov 23 j 01:08	17° $\mathring{\text{M}}$ 21'38	1°19'01
morning rise	-1729 Oct 05 j 04:27	12° $\mathring{\text{M}}$ 11'18		minimum elong	-1723 Nov 23 j 01:10	17° $\mathring{\text{M}}$ 21'39	1°19'00
retrograde	-1728 Jan 12 j 03:36	19° $\mathring{\text{M}}$ 08'05		max. Earth dist.	-1723 Nov 22 j 13:19	17° $\mathring{\text{M}}$ 18'09	11.05975 AU
opposition	-1728 Mar 21 j 09:00	15° $\mathring{\text{M}}$ 51'20	2°53'03	morning rise	-1723 Dec 09 j 14:14	19° $\mathring{\text{M}}$ 17'55	
min. Earth dist.	-1728 Mar 21 j 12:29	15° $\mathring{\text{M}}$ 50'42	9.03048 AU	retrograde	-1722 Mar 21 j 05:04	26° $\mathring{\text{M}}$ 21'51	
direct	-1728 May 31 j 19:50	12° $\mathring{\text{M}}$ 29'38		opposition	-1722 May 31 j 05:09	23° $\mathring{\text{M}}$ 02'45	1°21'42
evening set	-1728 Sep 12 j 10:41	19° $\mathring{\text{M}}$ 40'33		min. Earth dist.	-1722 May 31 j 15:26	23° $\mathring{\text{M}}$ 00'51	9.02638 AU
				direct	-1722 Aug 09 j 17:16	19° $\mathring{\text{M}}$ 44'14	
conjunction	-1728 Sep 29 j 02:32	21° $\mathring{\text{M}}$ 37'12	2°22'19	evening set	-1722 Nov 17 j 19:36	26° $\mathring{\text{M}}$ 44'10	
minimum elong	-1728 Sep 29 j 02:32	21° $\mathring{\text{M}}$ 37'12	2°22'19				
max. Earth dist.	-1728 Sep 28 j 21:06	21° $\mathring{\text{M}}$ 35'36	11.06191 AU	conjunction	-1722 Dec 04 j 09:21	28° $\mathring{\text{M}}$ 41'29	0°54'10
morning rise	-1728 Oct 15 j 14:51	23° $\mathring{\text{M}}$ 32'53		minimum elong	-1722 Dec 04 j 09:23	28° $\mathring{\text{M}}$ 41'29	0°54'08
	-1728 Dec 30 j 12:32	0° $\mathring{\text{A}}$		max. Earth dist.	-1722 Dec 03 j 22:01	28° $\mathring{\text{M}}$ 38'07	10.98707 AU
retrograde	-1727 Jan 22 j 17:31	0° $\mathring{\text{A}}$ 26'56			-1722 Dec 15 j 10:19	0° $\mathring{\text{A}}$	
	-1727 Feb 15 j 05:08	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		morning rise	-1722 Dec 21 j 00:45	0° $\mathring{\text{A}}$ 39'21	
opposition	-1727 Apr 02 j 09:13	27° $\mathring{\text{M}}$ 10'27	2°52'41	retrograde	-1721 Apr 02 j 10:29	7° $\mathring{\text{A}}$ 50'01	
min. Earth dist.	-1727 Apr 02 j 15:10	27° $\mathring{\text{M}}$ 09'21	9.09139 AU	opposition	-1721 Jun 12 j 11:23	4° $\mathring{\text{A}}$ 29'43	0°49'39
direct	-1727 Jun 12 j 22:30	23° $\mathring{\text{M}}$ 49'40		min. Earth dist.	-1721 Jun 12 j 20:47	4° $\mathring{\text{A}}$ 27'59	8.94268 AU
	-1727 Sep 15 j 16:46	0° $\mathring{\text{A}}$		direct	-1721 Aug 21 j 12:23	1° $\mathring{\text{A}}$ 11'05	
evening set	-1727 Sep 23 j 21:03	0° $\mathring{\text{A}}$ 55'26		evening set	-1721 Nov 29 j 07:01	8° $\mathring{\text{A}}$ 14'23	
conjunction	-1727 Oct 10 j 10:22	2° $\mathring{\text{A}}$ 50'54	2°19'24	conjunction	-1721 Dec 15 j 22:49	10° $\mathring{\text{A}}$ 13'25	0°26'45
minimum elong	-1727 Oct 10 j 10:23	2° $\mathring{\text{A}}$ 50'54	2°19'23	minimum elong	-1721 Dec 15 j 22:50	10° $\mathring{\text{A}}$ 13'25	0°26'42
max. Earth dist.	-1727 Oct 10 j 02:18	2° $\mathring{\text{A}}$ 48'32	11.11101 AU	max. Earth dist.	-1721 Dec 15 j 12:36	10° $\mathring{\text{A}}$ 10'22	10.89400 AU
morning rise	-1727 Oct 26 j 21:07	4° $\mathring{\text{A}}$ 45'38		morning rise	-1720 Jan 01 j 16:56	12° $\mathring{\text{A}}$ 13'15	
retrograde	-1726 Feb 03 j 05:12	11° $\mathring{\text{A}}$ 38'29		retrograde	-1720 Apr 14 j 01:01	19° $\mathring{\text{A}}$ 32'07	
opposition	-1726 Apr 14 j 07:30	8° $\mathring{\text{A}}$ 21'58	2°45'47	opposition	-1720 Jun 23 j 22:31	16° $\mathring{\text{A}}$ 10'30	0°14'52
min. Earth dist.	-1726 Apr 14 j 14:55	8° $\mathring{\text{A}}$ 20'36	9.12840 AU	min. Earth dist.	-1720 Jun 24 j 06:44	16° $\mathring{\text{A}}$ 08'57	8.84031 AU
direct	-1726 Jun 24 j 20:25	5° $\mathring{\text{A}}$ 01'59		direct	-1720 Sep 01 j 11:00	12° $\mathring{\text{A}}$ 51'30	
evening set	-1726 Oct 05 j 03:05	12° $\mathring{\text{A}}$ 03'47		desc. node	-1720 Nov 26 j 15:08	18° $\mathring{\text{A}}$ 26'27	
				evening set	-1720 Dec 10 j 01:21	19° $\mathring{\text{A}}$ 59'44	
conjunction	-1726 Oct 21 j 14:55	13° $\mathring{\text{A}}$ 58'36	2°11'13				
minimum elong	-1726 Oct 21 j 14:56	13° $\mathring{\text{A}}$ 58'36	2°11'12	conjunction	-1720 Dec 26 j 19:25	22° $\mathring{\text{A}}$ 00'49	0°-2'-25
max. Earth dist.	-1726 Oct 21 j 05:45	13° $\mathring{\text{A}}$ 55'55	11.13570 AU	minimum elong	-1720 Dec 26 j 19:25	22° $\mathring{\text{A}}$ 00'50	0°02'27
morning rise	-1726 Nov 07 j 00:55	15° $\mathring{\text{A}}$ 52'56		behind sun begin	-1720 Dec 26 j 12:24	21° $\mathring{\text{A}}$ 58'43	
retrograde	-1725 Feb 14 j 19:08	22° $\mathring{\text{A}}$ 46'11		behind sun end	-1720 Dec 27 j 02:26	22° $\mathring{\text{A}}$ 02'56	
opposition	-1725 Apr 26 j 05:00	19° $\mathring{\text{A}}$ 29'20	2°32'43	max. Earth dist.	-1720 Dec 26 j 09:36	21° $\mathring{\text{A}}$ 57'52	10.78399 AU
min. Earth dist.	-1725 Apr 26 j 12:59	19° $\mathring{\text{A}}$ 27'52	9.14029 AU	morning rise	-1719 Jan 12 j 16:45	24° $\mathring{\text{A}}$ 02'59	
direct	-1725 Jul 06 j 16:41	16° $\mathring{\text{A}}$ 10'00			-1719 Mar 14 j 07:04	0° $\mathring{\text{B}}$	
evening set	-1725 Oct 16 j 06:30	23° $\mathring{\text{A}}$ 09'09		retrograde	-1719 Apr 26 j 22:50	1° $\mathring{\text{B}}$ 31'15	
					-1719 Jun 10 j 13:34	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
conjunction	-1725 Nov 01 j 17:48	25° $\mathring{\text{A}}$ 03'52	1°58'08	opposition	-1719 Jul 06 j 15:15	28° $\mathring{\text{A}}$ 08'14	0°-21'-27
minimum elong	-1725 Nov 01 j 17:50	25° $\mathring{\text{A}}$ 03'53	1°58'06	min. Earth dist.	-1719 Jul 06 j 22:45	28° $\mathring{\text{A}}$ 06'49	8.72327 AU
max. Earth dist.	-1725 Nov 01 j 08:20	25° $\mathring{\text{A}}$ 01'06	11.13522 AU	direct	-1719 Sep 13 j 12:06	24° $\mathring{\text{A}}$ 48'38	
morning rise	-1725 Nov 18 j 03:53	26° $\mathring{\text{A}}$ 58'20			-1719 Dec 04 j 11:17	0° $\mathring{\text{B}}$	
	-1725 Dec 16 j 07:55	0° $\mathring{\text{M}}$		evening set	-1719 Dec 22 j 04:05	2° $\mathring{\text{B}}$ 03'22	
retrograde	-1724 Feb 26 j 11:20	3° $\mathring{\text{M}}$ 53'33					
opposition	-1724 May 07 j 03:09	0° $\mathring{\text{M}}$ 36'10	2°13'58	conjunction	-1718 Jan 08 j 00:44	4° $\mathring{\text{B}}$ 06'48	0°-32'-1
min. Earth dist.	-1724 May 07 j 11:44	0° $\mathring{\text{M}}$ 34'36	9.12681 AU	minimum elong	-1718 Jan 08 j 00:43	4° $\mathring{\text{B}}$ 06'48	0°32'03
	-1724 May 15 j 09:31	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		max. Earth dist.	-1718 Jan 07 j 15:32	4° $\mathring{\text{B}}$ 03'59	10.66145 AU
direct	-1724 Jul 17 j 08:30	27° $\mathring{\text{A}}$ 17'20		morning rise	-1718 Jan 25 j 01:31	6° $\mathring{\text{B}}$ 11'31	
	-1724 Sep 14 j 22:22	0° $\mathring{\text{M}}$		retrograde	-1718 May 10 j 03:51	13° $\mathring{\text{B}}$ 50'16	
evening set	-1724 Oct 26 j 09:06	4° $\mathring{\text{M}}$ 15'11		opposition	-1718 Jul 19 j 14:35	10° $\mathring{\text{B}}$ 25'45	0°-57'-51
				min. Earth dist.	-1718 Jul 19 j 21:12	10° $\mathring{\text{B}}$ 24'29	8.59642 AU
conjunction	-1724 Nov 11 j 20:30	6° $\mathring{\text{M}}$ 10'18	1°40'33	direct	-1718 Sep 25 j 22:02	7° $\mathring{\text{B}}$ 05'21	
minimum elong	-1724 Nov 11 j 20:33	6° $\mathring{\text{M}}$ 10'19	1°40'32	evening set	-1717 Jan 03 j 16:36	14° $\mathring{\text{B}}$ 27'56	
max. Earth dist.	-1724 Nov 11 j 09:49	6° $\mathring{\text{M}}$ 07'10	11.10964 AU				
morning rise	-1724 Nov 28 j 07:42	8° $\mathring{\text{M}}$ 05'26		conjunction	-1717 Jan 20 j 16:12	16° $\mathring{\text{B}}$ 33'57	-1°00'-55

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 16

Attention, astronomical year style is used: The year -1717 in astronomical counting style is the year 1718 BCE in historical counting style.

minimum elong	-1717 Jan 20 j 16:10	16°☾33'56	1°00'57	conjunction	-1711 Apr 14 j 13:51	8°♊58'22	-2°-13'-28
max. Earth dist.	-1717 Jan 20 j 09:11	16°☾31'46	10.53158 AU	minimum elong	-1711 Apr 14 j 13:54	8°♊58'23	2°13'28
morning rise	-1717 Feb 06 j 20:26	18°☾41'24		max. Earth dist.	-1711 Apr 14 j 21:14	9°♊00'48	9.94536 AU
retrograde	-1717 May 23 j 18:58	26°☾31'15		morning rise	-1711 May 02 j 14:53	11°♊20'12	
opposition	-1717 Aug 01 j 20:51	23°☾05'14	-1°-32'-38	retrograde	-1711 Aug 17 j 13:44	19°♊50'43	
min. Earth dist.	-1717 Aug 02 j 01:36	23°☾04'19	8.46545 AU	opposition	-1711 Oct 23 j 13:56	16°♊20'04	-2°-38'-48
direct	-1717 Oct 08 j 15:09	19°☾43'52		min. Earth dist.	-1711 Oct 23 j 07:21	16°♊21'26	7.93741 AU
evening set	-1716 Jan 16 j 16:23	27°☾15'22		direct	-1711 Dec 28 j 16:50	12°♊51'33	
				evening set	-1710 Apr 12 j 00:56	21°♊10'57	
conjunction	-1716 Feb 02 j 19:16	29°☾24'06	-1°-27'-35				
minimum elong	-1716 Feb 02 j 19:13	29°☾24'05	1°27'37	conjunction	-1710 Apr 30 j 02:28	23°♊32'57	-1°-58'-20
max. Earth dist.	-1716 Feb 02 j 15:11	29°☾22'49	10.40040 AU	minimum elong	-1710 Apr 30 j 02:32	23°♊32'59	1°58'21
	-1716 Feb 07 j 13:00	0°♊		max. Earth dist.	-1710 Apr 30 j 12:18	23°♊36'12	9.93465 AU
morning rise	-1716 Feb 20 j 02:57	1°♊34'24		morning rise	-1710 May 18 j 05:43	25°♊55'29	
retrograde	-1716 Jun 05 j 20:12	9°♊35'20			-1710 Jun 21 j 01:46	0°♊	
opposition	-1716 Aug 14 j 10:00	6°♊07'53	-2°-3'-48	retrograde	-1710 Sep 01 j 08:24	4°♊22'28	
min. Earth dist.	-1716 Aug 14 j 12:14	6°♊07'27	8.33659 AU	opposition	-1710 Nov 07 j 01:37	0°♊52'17	-2°-14'-58
direct	-1716 Oct 20 j 14:36	2°♊45'23		min. Earth dist.	-1710 Nov 06 j 17:19	0°♊54'01	7.94356 AU
evening set	-1715 Jan 29 j 04:07	10°♊26'33			-1710 Nov 17 j 15:06	30°♊	
				direct	-1709 Jan 12 j 11:02	27°♊23'02	
conjunction	-1715 Feb 15 j 10:28	12°♊38'02	-1°-50'-24		-1709 Mar 07 j 19:43	0°♊	
minimum elong	-1715 Feb 15 j 10:25	12°♊38'02	1°50'26	evening set	-1709 Apr 27 j 11:16	5°♊43'36	
max. Earth dist.	-1715 Feb 15 j 09:07	12°♊37'37	10.27437 AU				
morning rise	-1715 Mar 04 j 21:42	14°♊51'09		conjunction	-1709 May 15 j 15:20	8°♊05'51	-1°-35'-43
	-1715 Mar 06 j 02:02	15°♊		minimum elong	-1709 May 15 j 15:24	8°♊05'52	1°35'43
retrograde	-1715 Jun 20 j 04:53	23°♊02'26		max. Earth dist.	-1709 May 16 j 03:12	8°♊09'44	9.95850 AU
opposition	-1715 Aug 28 j 05:59	19°♊33'43	-2°-29'-15	morning rise	-1709 Jun 02 j 19:36	10°♊28'08	
min. Earth dist.	-1715 Aug 28 j 05:45	19°♊33'46	8.21620 AU		-1709 Jul 11 j 03:53	15°♊	
direct	-1715 Nov 02 j 23:13	16°♊09'58		retrograde	-1709 Sep 15 j 21:51	18°♊48'20	
evening set	-1714 Feb 12 j 03:43	24°♊00'57		opposition	-1709 Nov 21 j 10:40	15°♊19'02	-1°-42'-43
				min. Earth dist.	-1709 Nov 21 j 01:03	15°♊21'02	7.98350 AU
conjunction	-1714 Mar 01 j 13:42	26°♊15'10	-2°-7'-42		-1709 Nov 25 j 06:18	15°♊	
minimum elong	-1714 Mar 01 j 13:39	26°♊15'09	2°07'44	direct	-1708 Jan 27 j 05:42	11°♊49'19	
max. Earth dist.	-1714 Mar 01 j 14:35	26°♊15'27	10.15989 AU		-1708 Mar 28 j 01:58	15°♊	
morning rise	-1714 Mar 19 j 04:31	28°♊30'57		evening set	-1708 May 11 j 19:33	20°♊08'15	
	-1714 Mar 31 j 03:04	0°♊					
retrograde	-1714 Jul 04 j 19:57	6°♊51'07		conjunction	-1708 May 30 j 00:37	22°♊29'46	-1°-7'-19
opposition	-1714 Sep 11 j 08:03	3°♊21'20	-2°-46'-55	minimum elong	-1708 May 30 j 00:41	22°♊29'47	1°07'18
min. Earth dist.	-1714 Sep 11 j 05:54	3°♊21'47	8.11034 AU	max. Earth dist.	-1708 May 30 j 13:35	22°♊33'59	10.01509 AU
	-1714 Nov 08 j 13:42	30°♊		morning rise	-1708 Jun 17 j 04:24	24°♊50'51	
direct	-1714 Nov 16 j 16:21	29°♊56'16			-1708 Aug 01 j 05:43	0°♊	
	-1714 Nov 24 j 18:09	0°♊		retrograde	-1708 Sep 29 j 04:17	3°♊01'46	
evening set	-1713 Feb 26 j 14:35	7°♊56'41			-1708 Nov 29 j 07:40	30°♊	
				opposition	-1708 Dec 04 j 15:15	29°♊33'41	-1°-4'-33
conjunction	-1713 Mar 16 j 04:29	10°♊13'28	-2°-17'-58	min. Earth dist.	-1708 Dec 04 j 05:22	29°♊35'43	8.05442 AU
minimum elong	-1713 Mar 16 j 04:28	10°♊13'28	2°18'00	direct	-1707 Feb 09 j 22:04	26°♊03'49	
max. Earth dist.	-1713 Mar 16 j 07:10	10°♊14'21	10.06299 AU		-1707 Apr 19 j 23:51	0°♊	
morning rise	-1713 Apr 02 j 22:59	12°♊31'44		evening set	-1707 May 26 j 22:21	4°♊18'36	
retrograde	-1713 Jul 19 j 16:16	20°♊58'30					
opposition	-1713 Sep 25 j 15:08	17°♊28'02	-2°-55'-1	conjunction	-1707 Jun 14 j 02:43	6°♊38'28	0°-35'-15
min. Earth dist.	-1713 Sep 25 j 11:42	17°♊28'44	8.02475 AU	minimum elong	-1707 Jun 14 j 02:45	6°♊38'29	0°35'14
direct	-1713 Nov 30 j 17:14	14°♊01'41		max. Earth dist.	-1707 Jun 14 j 15:36	6°♊42'38	10.10036 AU
evening set	-1712 Mar 12 j 11:20	22°♊10'30		morning rise	-1707 Jul 02 j 04:28	8°♊57'30	
				retrograde	-1707 Oct 13 j 02:39	16°♊57'36	
conjunction	-1712 Mar 30 j 05:22	24°♊29'36	-2°-20'-5	opposition	-1707 Dec 18 j 14:06	13°♊30'57	0°-23'-20
minimum elong	-1712 Mar 30 j 05:23	24°♊29'36	2°20'06	min. Earth dist.	-1707 Dec 18 j 04:49	13°♊32'52	8.15147 AU
max. Earth dist.	-1712 Mar 30 j 10:14	24°♊31'12	9.98951 AU	direct	-1706 Feb 24 j 10:55	10°♊01'16	
morning rise	-1712 Apr 17 j 03:24	26°♊49'57		evening set	-1706 Jun 10 j 16:56	18°♊09'53	
	-1712 May 12 j 22:44	0°♊					
retrograde	-1712 Aug 02 j 15:17	5°♊20'22		conjunction	-1706 Jun 28 j 18:55	20°♊27'20	0°-1'-48
opposition	-1712 Oct 09 j 01:46	1°♊49'36	-2°-52'-25	minimum elong	-1706 Jun 28 j 18:56	20°♊27'20	0°01'47
min. Earth dist.	-1712 Oct 08 j 20:52	1°♊50'37	7.96538 AU	behind sun begin	-1706 Jun 28 j 11:36	20°♊25'01	
	-1712 Nov 01 j 07:36	30°♊		behind sun end	-1706 Jun 29 j 02:15	20°♊29'39	
direct	-1712 Dec 14 j 01:38	28°♊22'05		max. Earth dist.	-1706 Jun 29 j 06:37	20°♊31'03	10.20849 AU
	-1711 Jan 25 j 03:43	0°♊		morning rise	-1706 Jul 16 j 17:18	22°♊43'37	
evening set	-1711 Mar 27 j 15:49	6°♊37'28		asc. node	-1706 Jul 18 j 20:19	22°♊59'29	
					-1706 Oct 02 j 10:14	0°♊	



## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 17

Attention, astronomical year style is used: The year -1706 in astronomical counting style is the year 1707 BCE in historical counting style.

retrograde	-1706 Oct 26 j 14:09	0° $\mathfrak{S}$ 32'16		max. Earth dist.	-1700 Sep 12 j 19:09	5° $\mathfrak{M}$ 29'30	10.95489 AU
	-1706 Nov 19 j 20:12	30° $\mathfrak{R}$ II		morning rise	-1700 Sep 29 j 13:53	7° $\mathfrak{M}$ 28'05	
opposition	-1705 Jan 01 j 06:14	27° $\mathfrak{II}$ 07'13	0°18'05	retrograde	-1699 Jan 06 j 10:31	14° $\mathfrak{M}$ 26'02	
min. Earth dist.	-1706 Dec 31 j 22:13	27° $\mathfrak{II}$ 08'51	8.26828 AU	opposition	-1699 Mar 16 j 13:11	11° $\mathfrak{M}$ 08'59	2°51'01
direct	-1705 Mar 10 j 19:20	23° $\mathfrak{II}$ 38'01		min. Earth dist.	-1699 Mar 16 j 15:27	11° $\mathfrak{M}$ 08'34	9.00211 AU
	-1705 Jun 11 j 08:43	0° $\mathfrak{S}$		direct	-1699 May 26 j 22:24	7° $\mathfrak{M}$ 46'45	
evening set	-1705 Jun 25 j 01:46	1° $\mathfrak{S}$ 39'06		evening set	-1699 Sep 07 j 19:21	14° $\mathfrak{M}$ 59'46	
conjunction	-1705 Jul 12 j 23:57	3° $\mathfrak{S}$ 53'32	0°31'02	conjunction	-1699 Sep 24 j 12:30	16° $\mathfrak{M}$ 56'59	2°21'48
minimum elong	-1705 Jul 12 j 23:55	3° $\mathfrak{S}$ 53'32	0°31'04	minimum elong	-1699 Sep 24 j 12:29	16° $\mathfrak{M}$ 56'59	2°21'49
max. Earth dist.	-1705 Jul 13 j 09:25	3° $\mathfrak{S}$ 56'31	10.33255 AU	max. Earth dist.	-1699 Sep 24 j 08:23	16° $\mathfrak{M}$ 55'47	11.04085 AU
morning rise	-1705 Jul 30 j 17:49	6° $\mathfrak{S}$ 06'36		morning rise	-1699 Oct 11 j 02:02	18° $\mathfrak{M}$ 53'10	
retrograde	-1705 Nov 08 j 15:22	13° $\mathfrak{S}$ 43'59		retrograde	-1698 Jan 18 j 01:48	25° $\mathfrak{M}$ 47'41	
opposition	-1704 Jan 14 j 15:06	10° $\mathfrak{S}$ 20'34	0°57'19	opposition	-1698 Mar 28 j 13:36	22° $\mathfrak{M}$ 31'13	2°53'32
min. Earth dist.	-1704 Jan 14 j 08:23	10° $\mathfrak{S}$ 21'54	8.39771 AU	min. Earth dist.	-1698 Mar 28 j 17:06	22° $\mathfrak{M}$ 30'34	9.07760 AU
direct	-1704 Mar 23 j 20:28	6° $\mathfrak{S}$ 52'07		direct	-1698 Jun 08 j 03:36	19° $\mathfrak{M}$ 10'12	
evening set	-1704 Jul 07 j 23:31	14° $\mathfrak{S}$ 44'50		evening set	-1698 Sep 19 j 07:45	26° $\mathfrak{M}$ 17'35	
conjunction	-1704 Jul 25 j 16:52	16° $\mathfrak{S}$ 55'58	1°01'22	conjunction	-1698 Oct 05 j 22:10	28° $\mathfrak{M}$ 13'22	2°21'15
minimum elong	-1704 Jul 25 j 16:50	16° $\mathfrak{S}$ 55'57	1°01'23	minimum elong	-1698 Oct 05 j 22:10	28° $\mathfrak{M}$ 13'23	2°21'15
max. Earth dist.	-1704 Jul 26 j 00:00	16° $\mathfrak{S}$ 58'11	10.46539 AU	max. Earth dist.	-1698 Oct 05 j 16:55	28° $\mathfrak{M}$ 11'50	11.10475 AU
morning rise	-1704 Aug 12 j 05:29	19° $\mathfrak{S}$ 05'36			-1698 Oct 21 j 04:25	0° $\mathfrak{A}$	
retrograde	-1704 Nov 20 j 08:53	26° $\mathfrak{S}$ 32'29		morning rise	-1698 Oct 22 j 09:24	0° $\mathfrak{A}$ 08'19	
opposition	-1703 Jan 26 j 17:01	23° $\mathfrak{S}$ 10'38	1°32'25	retrograde	-1697 Jan 29 j 15:05	7° $\mathfrak{A}$ 00'55	
min. Earth dist.	-1703 Jan 26 j 11:14	23° $\mathfrak{S}$ 11'46	8.53263 AU	opposition	-1697 Apr 09 j 12:05	3° $\mathfrak{A}$ 44'45	2°49'24
direct	-1703 Apr 06 j 12:55	19° $\mathfrak{S}$ 43'14		min. Earth dist.	-1697 Apr 09 j 17:16	3° $\mathfrak{A}$ 43'48	9.12961 AU
evening set	-1703 Jul 21 j 09:34	27° $\mathfrak{S}$ 27'11		direct	-1697 Jun 20 j 01:29	0° $\mathfrak{A}$ 24'50	
				evening set	-1697 Sep 30 j 15:12	7° $\mathfrak{A}$ 27'40	
conjunction	-1703 Aug 07 j 21:41	29° $\mathfrak{S}$ 34'58	1°27'52	conjunction	-1697 Oct 17 j 03:36	9° $\mathfrak{A}$ 22'33	2°15'19
minimum elong	-1703 Aug 07 j 21:38	29° $\mathfrak{S}$ 34'57	1°27'53	minimum elong	-1697 Oct 17 j 03:37	9° $\mathfrak{A}$ 22'34	2°15'18
max. Earth dist.	-1703 Aug 08 j 03:07	29° $\mathfrak{S}$ 36'38	10.60007 AU	max. Earth dist.	-1697 Oct 16 j 20:27	9° $\mathfrak{A}$ 20'28	11.14439 AU
	-1703 Aug 11 j 07:22	0° $\mathfrak{Q}$		morning rise	-1697 Nov 02 j 13:38	11° $\mathfrak{A}$ 16'50	
morning rise	-1703 Aug 25 j 04:42	1° $\mathfrak{Q}$ 41'12		retrograde	-1696 Feb 10 j 03:51	18° $\mathfrak{A}$ 09'06	
retrograde	-1703 Dec 02 j 18:40	8° $\mathfrak{Q}$ 58'44		opposition	-1696 Apr 20 j 09:38	14° $\mathfrak{A}$ 52'57	2°38'57
opposition	-1702 Feb 08 j 12:11	5° $\mathfrak{Q}$ 38'20	2°02'00	min. Earth dist.	-1696 Apr 20 j 16:56	14° $\mathfrak{A}$ 51'36	9.15647 AU
min. Earth dist.	-1702 Feb 08 j 07:46	5° $\mathfrak{Q}$ 39'11	8.66624 AU	direct	-1696 Jun 30 j 21:05	11° $\mathfrak{A}$ 33'53	
direct	-1702 Apr 19 j 20:38	2° $\mathfrak{Q}$ 12'08		evening set	-1696 Oct 10 j 19:25	18° $\mathfrak{A}$ 33'27	
evening set	-1702 Aug 03 j 08:35	9° $\mathfrak{Q}$ 47'28					
conjunction	-1702 Aug 20 j 15:21	11° $\mathfrak{Q}$ 52'03	1°49'37	conjunction	-1696 Oct 27 j 06:40	20° $\mathfrak{A}$ 27'58	2°04'19
minimum elong	-1702 Aug 20 j 15:18	11° $\mathfrak{Q}$ 52'02	1°49'38	minimum elong	-1696 Oct 27 j 06:42	20° $\mathfrak{A}$ 27'58	2°04'18
max. Earth dist.	-1702 Aug 20 j 18:59	11° $\mathfrak{Q}$ 53'09	10.73017 AU	max. Earth dist.	-1696 Oct 26 j 21:15	20° $\mathfrak{A}$ 25'13	11.15852 AU
morning rise	-1702 Sep 06 j 16:53	13° $\mathfrak{Q}$ 55'07		morning rise	-1696 Nov 12 j 16:38	22° $\mathfrak{A}$ 22'07	
	-1702 Sep 15 j 23:27	15° $\mathfrak{Q}$		retrograde	-1695 Feb 20 j 17:17	29° $\mathfrak{A}$ 15'36	
retrograde	-1702 Dec 14 j 21:35	21° $\mathfrak{Q}$ 04'36		opposition	-1695 May 02 j 07:03	25° $\mathfrak{A}$ 59'07	2°22'38
opposition	-1701 Feb 21 j 01:14	17° $\mathfrak{Q}$ 45'33	2°25'13	min. Earth dist.	-1695 May 02 j 15:53	25° $\mathfrak{A}$ 57'30	9.15723 AU
min. Earth dist.	-1701 Feb 20 j 23:05	17° $\mathfrak{Q}$ 45'58	8.79241 AU	direct	-1695 Jul 12 j 14:20	22° $\mathfrak{A}$ 40'41	
	-1701 Apr 04 j 05:00	15° $\mathfrak{R}$ $\mathfrak{Q}$		evening set	-1695 Oct 21 j 21:55	29° $\mathfrak{A}$ 38'20	
direct	-1701 May 02 j 20:39	14° $\mathfrak{Q}$ 20'39			-1695 Oct 25 j 01:27	0° $\mathfrak{M}$	
	-1701 May 31 j 07:55	15° $\mathfrak{Q}$		conjunction	-1695 Nov 07 j 09:03	1° $\mathfrak{M}$ 33'00	1°48'39
evening set	-1701 Aug 15 j 21:14	21° $\mathfrak{Q}$ 47'49		minimum elong	-1695 Nov 07 j 09:06	1° $\mathfrak{M}$ 33'00	1°48'39
conjunction	-1701 Sep 01 j 22:48	23° $\mathfrak{Q}$ 49'31	2°06'00	max. Earth dist.	-1695 Nov 06 j 22:36	1° $\mathfrak{M}$ 29'56	11.14637 AU
minimum elong	-1701 Sep 01 j 22:46	23° $\mathfrak{Q}$ 49'30	2°06'01	morning rise	-1695 Nov 23 j 19:42	3° $\mathfrak{M}$ 27'34	
max. Earth dist.	-1701 Sep 01 j 23:55	23° $\mathfrak{Q}$ 49'50	10.85002 AU	retrograde	-1694 Mar 04 j 09:53	10° $\mathfrak{M}$ 23'52	
morning rise	-1701 Sep 18 j 19:28	25° $\mathfrak{Q}$ 49'47		opposition	-1694 May 14 j 05:29	7° $\mathfrak{M}$ 06'44	2°00'58
	-1701 Oct 28 j 04:36	0° $\mathfrak{M}$		min. Earth dist.	-1694 May 14 j 14:41	7° $\mathfrak{M}$ 05'03	9.13130 AU
retrograde	-1701 Dec 26 j 19:15	2° $\mathfrak{M}$ 52'43		direct	-1694 Jul 24 j 07:05	3° $\mathfrak{M}$ 48'41	
	-1700 Feb 27 j 19:45	30° $\mathfrak{R}$ $\mathfrak{Q}$		evening set	-1694 Nov 02 j 00:40	10° $\mathfrak{M}$ 45'51	
opposition	-1700 Mar 04 j 09:21	29° $\mathfrak{Q}$ 34'48	2°41'36	conjunction	-1694 Nov 18 j 12:27	12° $\mathfrak{M}$ 41'11	1°28'50
min. Earth dist.	-1700 Mar 04 j 09:49	29° $\mathfrak{Q}$ 34'43	8.90585 AU	minimum elong	-1694 Nov 18 j 12:30	12° $\mathfrak{M}$ 41'11	1°28'48
direct	-1700 May 14 j 12:25	26° $\mathfrak{Q}$ 11'16		max. Earth dist.	-1694 Nov 18 j 01:42	12° $\mathfrak{M}$ 38'01	11.10755 AU
	-1700 Jul 25 j 09:49	0° $\mathfrak{M}$		morning rise	-1694 Dec 05 j 00:25	14° $\mathfrak{M}$ 36'39	
evening set	-1700 Aug 27 j 00:20	3° $\mathfrak{M}$ 30'55			-1694 Dec 08 j 10:07	15° $\mathfrak{M}$	
conjunction	-1700 Sep 12 j 21:13	5° $\mathfrak{M}$ 30'07	2°16'45	retrograde	-1693 Mar 16 j 08:50	21° $\mathfrak{M}$ 37'23	
minimum elong	-1700 Sep 12 j 21:11	5° $\mathfrak{M}$ 30'06	2°16'47	opposition	-1693 May 26 j 06:12	18° $\mathfrak{M}$ 19'22	1°34'32

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 18

Attention, astronomical year style is used: The year -1693 in astronomical counting style is the year 1694 BCE in historical counting style.

min. Earth dist.	-1693 May 26 j 15:55	18° $\mathbb{M}$ 17'35	9.07884 AU	opposition	-1687 Aug 08 j 18:01	0° $\approx$ 31'58	-1°-50'-31
direct	-1693 Aug 04 j 23:22	15° $\mathbb{M}$ 01'28		min. Earth dist.	-1687 Aug 08 j 22:39	0° $\approx$ 31'03	8.38429 AU
evening set	-1693 Nov 13 j 05:41	21° $\mathbb{M}$ 59'44			-1687 Aug 15 j 13:07	30° $\mathbb{R}$ $\mathfrak{Z}$	
				direct	-1687 Oct 15 j 04:11	27° $\mathfrak{Z}$ 09'31	
conjunction	-1693 Nov 29 j 18:37	23° $\mathbb{M}$ 56'11	1°05'24		-1687 Dec 11 j 15:35	0° $\approx$	
minimum elong	-1693 Nov 29 j 18:39	23° $\mathbb{M}$ 56'12	1°05'23	evening set	-1686 Jan 23 j 12:32	4° $\approx$ 46'33	
max. Earth dist.	-1693 Nov 29 j 06:39	23° $\mathbb{M}$ 52'39	11.04287 AU				
morning rise	-1693 Dec 16 j 08:42	25° $\mathbb{M}$ 53'05		conjunction	-1686 Feb 09 j 17:08	6° $\approx$ 56'53	-1°-40'-49
	-1692 Jan 24 j 16:11	0° $\mathfrak{A}$		minimum elong	-1686 Feb 09 j 17:05	6° $\approx$ 56'52	1°40'51
retrograde	-1692 Mar 27 j 10:36	2° $\mathfrak{A}$ 59'53		max. Earth dist.	-1686 Feb 09 j 11:59	6° $\approx$ 55'15	10.31772 AU
	-1692 Jun 02 j 02:00	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-1686 Feb 27 j 02:55	9° $\approx$ 08'51	
opposition	-1692 Jun 06 j 10:25	29° $\mathbb{M}$ 40'44	1°04'05		-1686 Apr 22 j 15:42	15° $\approx$	
min. Earth dist.	-1692 Jun 06 j 20:57	29° $\mathbb{M}$ 38'47	9.00149 AU	retrograde	-1686 Jun 14 j 03:26	17° $\approx$ 15'58	
direct	-1692 Aug 15 j 15:24	26° $\mathbb{M}$ 22'42			-1686 Aug 06 j 22:30	15° $\mathbb{R}$ $\approx$	
	-1692 Oct 23 j 05:52	0° $\mathfrak{A}$		opposition	-1686 Aug 22 j 11:09	13° $\approx$ 47'17	-2°-18'-48
evening set	-1692 Nov 23 j 14:39	3° $\mathfrak{A}$ 23'44		min. Earth dist.	-1686 Aug 22 j 13:47	13° $\approx$ 46'45	8.25395 AU
				direct	-1686 Oct 28 j 09:57	10° $\approx$ 23'30	
conjunction	-1692 Dec 10 j 05:16	5° $\mathfrak{A}$ 21'46	0°39'04		-1685 Jan 10 j 16:27	15° $\approx$	
minimum elong	-1692 Dec 10 j 05:18	5° $\mathfrak{A}$ 21'46	0°39'01	evening set	-1685 Feb 06 j 06:36	18° $\approx$ 10'36	
max. Earth dist.	-1692 Dec 09 j 16:21	5° $\mathfrak{A}$ 17'55	10.95473 AU				
morning rise	-1692 Dec 26 j 22:09	7° $\mathfrak{A}$ 20'30		conjunction	-1685 Feb 23 j 14:55	20° $\approx$ 23'47	-2°00'-48
retrograde	-1691 Apr 08 j 19:45	14° $\mathfrak{A}$ 34'58		minimum elong	-1685 Feb 23 j 14:52	20° $\approx$ 23'47	2°00'49
opposition	-1691 Jun 18 j 19:05	11° $\mathfrak{A}$ 14'26	0°30'27	max. Earth dist.	-1685 Feb 23 j 13:08	20° $\approx$ 23'13	10.19248 AU
min. Earth dist.	-1691 Jun 19 j 05:56	11° $\mathfrak{A}$ 12'25	8.90246 AU	morning rise	-1685 Mar 13 j 04:17	22° $\approx$ 38'36	
direct	-1691 Aug 27 j 12:57	7° $\mathfrak{A}$ 55'58			-1685 May 26 j 22:15	0° $\mathfrak{H}$	
evening set	-1691 Dec 05 j 05:33	15° $\mathfrak{A}$ 01'23		retrograde	-1685 Jun 28 j 15:22	0° $\mathfrak{H}$ 55'42	
					-1685 Jul 31 j 14:38	30° $\mathbb{R}$ $\approx$	
conjunction	-1691 Dec 21 j 22:26	17° $\mathfrak{A}$ 01'23	0°10'40	opposition	-1685 Sep 05 j 10:53	27° $\approx$ 25'44	-2°-40'-14
minimum elong	-1691 Dec 21 j 22:27	17° $\mathfrak{A}$ 01'23	0°10'37	min. Earth dist.	-1685 Sep 05 j 10:58	27° $\approx$ 25'44	8.13683 AU
behind sun begin	-1691 Dec 21 j 16:59	16° $\mathfrak{A}$ 59'45		direct	-1685 Nov 11 j 00:02	24° $\approx$ 00'36	
behind sun end	-1691 Dec 22 j 03:55	17° $\mathfrak{A}$ 03'01			-1684 Feb 04 j 17:47	0° $\mathfrak{H}$	
max. Earth dist.	-1691 Dec 21 j 10:25	16° $\mathfrak{A}$ 57'46	10.84671 AU	evening set	-1684 Feb 20 j 12:43	1° $\mathfrak{H}$ 57'38	
morning rise	-1690 Jan 07 j 18:17	19° $\mathfrak{A}$ 02'20					
retrograde	-1690 Apr 21 j 13:12	26° $\mathfrak{A}$ 25'49		conjunction	-1684 Mar 09 j 01:02	4° $\mathfrak{H}$ 13'34	-2°-14'-23
desc. node	-1690 May 07 j 10:11	26° $\mathfrak{A}$ 13'35		minimum elong	-1684 Mar 09 j 01:00	4° $\mathfrak{H}$ 13'34	2°14'24
opposition	-1690 Jul 01 j 08:56	23° $\mathfrak{A}$ 03'42	0°-5'-16	max. Earth dist.	-1684 Mar 09 j 02:59	4° $\mathfrak{H}$ 14'12	10.08393 AU
min. Earth dist.	-1690 Jul 01 j 18:40	23° $\mathfrak{A}$ 01'53	8.78590 AU	morning rise	-1684 Mar 26 j 17:59	6° $\mathfrak{H}$ 31'02	
direct	-1690 Sep 08 j 13:49	19° $\mathfrak{A}$ 44'34		retrograde	-1684 Jul 12 j 10:15	14° $\mathfrak{H}$ 56'03	
evening set	-1690 Dec 17 j 04:03	26° $\mathfrak{A}$ 55'54		opposition	-1684 Sep 18 j 16:07	11° $\mathfrak{H}$ 25'10	-2°-52'-49
				min. Earth dist.	-1684 Sep 18 j 13:18	11° $\mathfrak{H}$ 25'45	8.03972 AU
conjunction	-1689 Jan 02 j 23:33	28° $\mathfrak{A}$ 58'11	0°-18'-53	direct	-1684 Nov 23 j 21:27	7° $\mathfrak{H}$ 58'44	
minimum elong	-1689 Jan 02 j 23:33	28° $\mathfrak{A}$ 58'10	0°18'56	evening set	-1683 Mar 06 j 05:39	16° $\mathfrak{H}$ 04'49	
max. Earth dist.	-1689 Jan 02 j 13:15	28° $\mathfrak{A}$ 55'02	10.72335 AU				
	-1689 Jan 11 j 10:15	0° $\mathfrak{Z}$		conjunction	-1683 Mar 23 j 22:05	18° $\mathfrak{H}$ 23'13	-2°-20'-14
morning rise	-1689 Jan 19 j 22:34	1° $\mathfrak{Z}$ 01'37		minimum elong	-1683 Mar 23 j 22:05	18° $\mathfrak{H}$ 23'13	2°20'15
retrograde	-1689 May 04 j 15:06	8° $\mathfrak{Z}$ 35'19		max. Earth dist.	-1683 Mar 24 j 03:22	18° $\mathfrak{H}$ 24'57	9.99875 AU
opposition	-1689 Jul 14 j 05:07	5° $\mathfrak{Z}$ 11'30	0°-41'-47	morning rise	-1683 Apr 10 j 18:32	20° $\mathfrak{H}$ 42'58	
min. Earth dist.	-1689 Jul 14 j 12:58	5° $\mathfrak{Z}$ 10'00	8.65682 AU	retrograde	-1683 Jul 27 j 09:15	29° $\mathfrak{H}$ 13'05	
direct	-1689 Sep 20 j 20:16	1° $\mathfrak{Z}$ 51'27		opposition	-1683 Oct 03 j 01:45	25° $\mathfrak{H}$ 41'42	-2°-55'-4
evening set	-1689 Dec 29 j 11:48	9° $\mathfrak{Z}$ 10'09		min. Earth dist.	-1683 Oct 02 j 20:20	25° $\mathfrak{H}$ 42'49	7.96873 AU
				direct	-1683 Dec 08 j 02:25	22° $\mathfrak{H}$ 14'05	
conjunction	-1688 Jan 15 j 10:06	11° $\mathfrak{Z}$ 14'58	0°-48'-15		-1682 Mar 17 j 17:32	0° $\mathbb{Y}$	
minimum elong	-1688 Jan 15 j 10:04	11° $\mathfrak{Z}$ 14'57	0°48'17	evening set	-1682 Mar 21 j 07:11	0° $\mathbb{Y}$ 27'33	
max. Earth dist.	-1688 Jan 15 j 01:15	11° $\mathfrak{Z}$ 12'14	10.58998 AU				
morning rise	-1688 Feb 01 j 12:36	13° $\mathfrak{Z}$ 21'08		conjunction	-1682 Apr 08 j 03:39	2° $\mathbb{Y}$ 47'58	-2°-17'-31
retrograde	-1688 May 17 j 02:58	21° $\mathfrak{Z}$ 05'52		minimum elong	-1682 Apr 08 j 03:41	2° $\mathbb{Y}$ 47'59	2°17'32
opposition	-1688 Jul 26 j 08:06	17° $\mathfrak{Z}$ 40'19	-1°-17'-29	max. Earth dist.	-1682 Apr 08 j 11:49	2° $\mathbb{Y}$ 50'40	9.94266 AU
min. Earth dist.	-1688 Jul 26 j 14:09	17° $\mathfrak{Z}$ 39'09	8.52085 AU	morning rise	-1682 Apr 26 j 03:21	5° $\mathbb{Y}$ 09'28	
direct	-1688 Oct 02 j 08:34	14° $\mathfrak{Z}$ 19'09		retrograde	-1682 Aug 11 j 09:20	13° $\mathbb{Y}$ 41'15	
evening set	-1687 Jan 10 j 06:23	21° $\mathfrak{Z}$ 46'31		opposition	-1682 Oct 17 j 13:55	10° $\mathbb{Y}$ 09'49	-2°-46'-17
				min. Earth dist.	-1682 Oct 17 j 06:35	10° $\mathbb{Y}$ 11'21	7.92878 AU
conjunction	-1687 Jan 27 j 07:40	23° $\mathfrak{Z}$ 54'02	-1°-16'-5	direct	-1682 Dec 22 j 14:45	6° $\mathbb{Y}$ 41'12	
minimum elong	-1687 Jan 27 j 07:37	23° $\mathfrak{Z}$ 54'01	1°16'07	evening set	-1681 Apr 05 j 14:57	14° $\mathbb{Y}$ 59'47	
max. Earth dist.	-1687 Jan 27 j 00:06	23° $\mathfrak{Z}$ 51'40	10.45256 AU				
morning rise	-1687 Feb 13 j 13:48	26° $\mathfrak{Z}$ 03'06		conjunction	-1681 Apr 23 j 15:07	17° $\mathbb{Y}$ 21'37	-2°-6'-4
	-1687 Mar 20 j 06:32	0° $\approx$		minimum elong	-1681 Apr 23 j 15:11	17° $\mathbb{Y}$ 21'38	2°06'05
retrograde	-1687 May 30 j 23:30	3° $\approx$ 59'09		max. Earth dist.	-1681 Apr 24 j 01:32	17° $\mathbb{Y}$ 25'03	9.91973 AU

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Attention, astronomical year style is used: The year -1681 in astronomical counting style is the year 1682 BCE in historical counting style.

morning rise	-1681 May 11 j 17:30	19°Υ44'09		opposition	-1674 Jan 21 j 11:49	17°♄56'11	1°17'46
retrograde	-1681 Aug 26 j 06:41	28°Υ13'50		min. Earth dist.	-1674 Jan 21 j 04:59	17°♄57'32	8.48169 AU
opposition	-1681 Nov 01 j 02:23	24°Υ42'53	-2°-26'-45	direct	-1674 Mar 31 j 23:23	14°♄28'51	
min. Earth dist.	-1681 Oct 31 j 17:49	24°Υ44'41	7.92283 AU	evening set	-1674 Jul 16 j 01:23	22°♄16'38	
direct	-1680 Jan 06 j 07:36	21°Υ13'31					
evening set	-1680 Apr 20 j 01:35	29°Υ34'30		conjunction	-1674 Aug 02 j 15:52	24°♄25'51	1°16'54
	-1680 Apr 23 j 08:18	0°♄		minimum elong	-1674 Aug 02 j 15:49	24°♄25'50	1°16'56
				max. Earth dist.	-1674 Aug 02 j 23:04	24°♄28'04	10.55079 AU
conjunction	-1680 May 08 j 04:40	1°♄56'56	-1°-46'-33	morning rise	-1674 Aug 20 j 01:16	26°♄33'30	
minimum elong	-1680 May 08 j 04:44	1°♄56'57	1°46'34		-1674 Sep 19 j 14:19	0°♄	
max. Earth dist.	-1680 May 08 j 16:33	2°♄00'51	9.93168 AU	retrograde	-1674 Nov 27 j 22:19	3°♄54'55	
morning rise	-1680 May 26 j 08:44	4°♄19'38		opposition	-1673 Feb 03 j 10:12	0°♄34'25	1°49'52
retrograde	-1680 Sep 08 j 23:14	12°♄43'47		min. Earth dist.	-1673 Feb 03 j 05:53	0°♄35'15	8.61835 AU
opposition	-1680 Nov 14 j 13:15	9°♄13'46	-1°-57'-52		-1673 Feb 10 j 19:27	30°♄	
min. Earth dist.	-1680 Nov 14 j 03:59	9°♄15'42	7.95149 AU	direct	-1673 Apr 14 j 11:27	27°♄08'10	
direct	-1679 Jan 20 j 02:33	5°♄43'58			-1673 Jun 14 j 04:05	0°♄	
evening set	-1679 May 05 j 11:28	14°♄04'29		evening set	-1673 Jul 29 j 05:44	4°♄47'12	
	-1679 May 12 j 15:19	15°♄					
				conjunction	-1673 Aug 15 j 14:40	6°♄53'05	1°40'48
conjunction	-1679 May 23 j 16:09	16°♄26'35	-1°-20'-24	minimum elong	-1673 Aug 15 j 14:36	6°♄53'04	1°40'49
minimum elong	-1679 May 23 j 16:13	16°♄26'36	1°20'24	max. Earth dist.	-1673 Aug 15 j 18:05	6°♄54'07	10.68401 AU
max. Earth dist.	-1679 May 24 j 04:53	16°♄30'45	9.97777 AU	morning rise	-1673 Sep 01 j 18:37	8°♄57'27	
morning rise	-1679 Jun 10 j 20:31	18°♄48'28			-1673 Nov 03 j 08:56	15°♄	
retrograde	-1679 Sep 23 j 09:14	27°♄04'18		retrograde	-1673 Dec 10 j 02:45	16°♄10'13	
opposition	-1679 Nov 28 j 20:26	23°♄35'33	-1°-21'-53		-1672 Jan 16 j 16:30	15°♄	
min. Earth dist.	-1679 Nov 28 j 10:34	23°♄37'36	8.01298 AU	opposition	-1672 Feb 16 j 02:07	12°♄51'05	2°15'55
direct	-1678 Feb 03 j 21:03	20°♄05'41		min. Earth dist.	-1672 Feb 15 j 23:58	12°♄51'30	8.74762 AU
evening set	-1678 May 20 j 17:23	28°♄23'03		direct	-1672 Apr 26 j 16:58	9°♄26'03	
	-1678 Jun 02 j 07:03	0°♄			-1672 Jul 23 j 21:54	15°♄	
				evening set	-1672 Aug 09 j 23:07	16°♄56'45	
conjunction	-1678 Jun 07 j 22:12	0°♄43'52	0°-49'-37				
minimum elong	-1678 Jun 07 j 22:14	0°♄43'53	0°49'37	conjunction	-1672 Aug 27 j 02:47	18°♄59'37	1°59'33
max. Earth dist.	-1678 Jun 08 j 11:16	0°♄48'07	10.05494 AU	minimum elong	-1672 Aug 27 j 02:44	18°♄59'36	1°59'34
morning rise	-1678 Jun 26 j 01:16	3°♄04'03		max. Earth dist.	-1672 Aug 27 j 03:19	18°♄59'46	10.80695 AU
retrograde	-1678 Oct 07 j 11:14	11°♄09'33		morning rise	-1672 Sep 13 j 01:37	21°♄01'01	
opposition	-1678 Dec 12 j 22:17	7°♄42'21	0°-41'-34	retrograde	-1672 Dec 21 j 03:22	28°♄06'44	
min. Earth dist.	-1678 Dec 12 j 12:01	7°♄44'27	8.10324 AU	opposition	-1671 Feb 27 j 12:36	24°♄48'43	2°35'17
direct	-1677 Feb 18 j 12:43	4°♄12'43		min. Earth dist.	-1671 Feb 27 j 12:03	24°♄48'49	8.86422 AU
evening set	-1677 Jun 04 j 16:29	12°♄24'42		direct	-1671 May 09 j 12:52	21°♄24'56	
				evening set	-1671 Aug 22 j 06:29	28°♄47'53	
conjunction	-1677 Jun 22 j 19:45	14°♄43'23	0°-16'-26		-1671 Sep 01 j 11:36	0°♄	
minimum elong	-1677 Jun 22 j 19:46	14°♄43'23	0°16'25				
max. Earth dist.	-1677 Jun 23 j 08:37	14°♄47'30	10.15790 AU	conjunction	-1671 Sep 08 j 05:28	0°♄48'08	2°12'45
morning rise	-1677 Jul 10 j 19:58	17°♄01'03		minimum elong	-1671 Sep 08 j 05:26	0°♄48'08	2°12'46
retrograde	-1677 Oct 21 j 03:51	24°♄55'11		max. Earth dist.	-1671 Sep 08 j 04:14	0°♄47'47	10.91519 AU
asc. node	-1677 Dec 25 j 07:22	21°♄36'42		morning rise	-1671 Sep 24 j 23:46	2°♄47'04	
opposition	-1677 Dec 26 j 17:51	21°♄29'41	0°00'09	retrograde	-1670 Jan 01 j 22:38	9°♄47'12	
min. Earth dist.	-1677 Dec 26 j 07:47	21°♄31'44	8.21627 AU	opposition	-1670 Mar 11 j 18:30	6°♄30'02	2°47'43
direct	-1676 Mar 03 j 23:56	18°♄00'36		min. Earth dist.	-1670 Mar 11 j 20:16	6°♄29'42	8.96418 AU
evening set	-1676 Jun 18 j 06:26	26°♄05'28		direct	-1670 May 22 j 01:11	3°♄07'27	
				evening set	-1670 Sep 03 j 05:24	10°♄23'28	
conjunction	-1676 Jul 06 j 06:33	28°♄21'20	0°16'59				
minimum elong	-1676 Jul 06 j 06:32	28°♄21'19	0°17'01	conjunction	-1670 Sep 20 j 00:15	12°♄21'33	2°20'15
max. Earth dist.	-1676 Jul 06 j 18:35	28°♄25'08	10.27990 AU	minimum elong	-1670 Sep 20 j 00:14	12°♄21'32	2°20'15
	-1676 Jul 19 j 07:17	0°♄		max. Earth dist.	-1670 Sep 19 j 20:33	12°♄20'27	11.00517 AU
morning rise	-1676 Jul 24 j 02:29	0°♄35'52		morning rise	-1670 Oct 06 j 14:55	14°♄18'29	
retrograde	-1676 Nov 02 j 10:52	8°♄18'28		retrograde	-1669 Jan 13 j 14:28	21°♄14'33	
opposition	-1675 Jan 08 j 06:28	4°♄54'43	0°40'40	opposition	-1669 Mar 23 j 20:43	17°♄57'58	2°53'12
min. Earth dist.	-1675 Jan 07 j 21:25	4°♄56'32	8.34497 AU	min. Earth dist.	-1669 Mar 24 j 01:09	17°♄57'08	9.04425 AU
direct	-1675 Mar 18 j 03:45	1°♄26'25		direct	-1669 Jun 03 j 08:04	14°♄36'26	
evening set	-1675 Jul 02 j 09:40	9°♄23'01		evening set	-1669 Sep 14 j 21:02	21°♄46'27	
conjunction	-1675 Jul 20 j 05:22	11°♄35'38	0°48'35	conjunction	-1669 Oct 01 j 12:30	23°♄42'53	2°22'04
minimum elong	-1675 Jul 20 j 05:20	11°♄35'37	0°48'37	minimum elong	-1669 Oct 01 j 12:30	23°♄42'53	2°22'04
max. Earth dist.	-1675 Jul 20 j 15:43	11°♄38'51	10.41350 AU	max. Earth dist.	-1669 Oct 01 j 05:54	23°♄40'57	11.07408 AU
morning rise	-1675 Aug 06 j 20:12	13°♄46'44		morning rise	-1669 Oct 18 j 00:41	25°♄38'23	
retrograde	-1675 Nov 15 j 09:22	21°♄18'15			-1669 Nov 29 j 14:43	0°♄	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 20

Attention, astronomical year style is used: The year -1668 in astronomical counting style is the year 1669 BCE in historical counting style.

retrograde	-1668 Jan 25 j 02:40	2°♊31'56		max. Earth dist.	-1663 Dec 05 j 08:02	0°♊44'00	10.97636 AU
	-1668 Mar 24 j 17:36	30°♊		morning rise	-1663 Dec 22 j 10:45	2°♊45'22	
opposition	-1668 Apr 03 j 20:26	29°♊15'34	2°51'54	retrograde	-1662 Apr 03 j 23:47	9°♊56'56	
min. Earth dist.	-1668 Apr 04 j 02:51	29°♊14'23	9.10189 AU	opposition	-1662 Jun 13 j 23:12	6°♊36'28	0°44'57
direct	-1668 Jun 14 j 09:45	25°♊54'58		min. Earth dist.	-1662 Jun 14 j 08:27	6°♊34'45	8.93020 AU
	-1668 Aug 28 j 09:38	0°♊		direct	-1662 Aug 22 j 23:25	3°♊17'45	
evening set	-1668 Sep 25 j 06:37	3°♊00'01		evening set	-1662 Nov 30 j 17:15	10°♊21'38	
conjunction	-1668 Oct 11 j 19:46	4°♊55'20	2°18'25	conjunction	-1662 Dec 17 j 09:15	12°♊20'55	0°22'48
minimum elong	-1668 Oct 11 j 19:47	4°♊55'20	2°18'24	minimum elong	-1662 Dec 17 j 09:15	12°♊20'55	0°22'46
max. Earth dist.	-1668 Oct 11 j 11:23	4°♊52'53	11.11973 AU	max. Earth dist.	-1662 Dec 16 j 22:20	12°♊17'38	10.87994 AU
morning rise	-1668 Oct 28 j 06:25	6°♊49'58		morning rise	-1661 Jan 03 j 03:43	14°♊21'01	
retrograde	-1667 Feb 04 j 15:34	13°♊42'36		retrograde	-1661 Apr 16 j 14:34	21°♊40'58	
opposition	-1667 Apr 15 j 18:26	10°♊26'08	2°44'07	opposition	-1661 Jun 26 j 11:03	18°♊19'09	0°09'55
min. Earth dist.	-1667 Apr 16 j 01:39	10°♊24'48	9.13519 AU	min. Earth dist.	-1661 Jun 26 j 19:48	18°♊17'31	8.82474 AU
direct	-1667 Jun 26 j 08:30	7°♊06'19		direct	-1661 Sep 03 j 20:47	15°♊00'02	
evening set	-1667 Oct 06 j 12:08	14°♊07'35		desc. node	-1661 Oct 08 j 07:33	16°♊00'03	
				evening set	-1661 Dec 12 j 12:29	22°♊09'06	
conjunction	-1667 Oct 23 j 00:01	16°♊02'21	2°09'32	conjunction	-1661 Dec 29 j 06:46	24°♊10'29	0°-6'-28
minimum elong	-1667 Oct 23 j 00:03	16°♊02'22	2°09'31	minimum elong	-1661 Dec 29 j 06:45	24°♊10'28	0°06'31
max. Earth dist.	-1667 Oct 22 j 15:03	15°♊59'44	11.14061 AU	behind sun begin	-1661 Dec 29 j 00:08	24°♊08'29	
morning rise	-1667 Nov 08 j 09:57	17°♊56'39		behind sun end	-1661 Dec 29 j 13:22	24°♊12'28	
retrograde	-1666 Feb 16 j 05:57	24°♊49'51		max. Earth dist.	-1661 Dec 28 j 20:05	24°♊07'15	10.76716 AU
opposition	-1666 Apr 27 j 15:44	21°♊33'04	2°30'15	morning rise	-1660 Jan 15 j 04:31	26°♊12'57	
min. Earth dist.	-1666 Apr 27 j 23:57	21°♊31'33	9.14314 AU		-1660 Feb 18 j 14:56	0°♊	
direct	-1666 Jul 08 j 02:06	18°♊13'52		retrograde	-1660 Apr 28 j 11:34	3°♊42'32	
evening set	-1666 Oct 17 j 15:23	25°♊12'41		opposition	-1660 Jul 08 j 04:42	0°♊19'17	0°-26'-26
conjunction	-1666 Nov 03 j 02:41	27°♊07'25	1°55'48	min. Earth dist.	-1660 Jul 08 j 12:52	0°♊17'44	8.70526 AU
minimum elong	-1666 Nov 03 j 02:44	27°♊07'25	1°55'47		-1660 Jul 12 j 10:18	30°♊	
max. Earth dist.	-1666 Nov 02 j 16:31	27°♊04'26	11.13611 AU	direct	-1660 Sep 15 j 00:32	26°♊59'30	
morning rise	-1666 Nov 19 j 12:56	29°♊01'55			-1660 Nov 14 j 14:23	0°♊	
	-1666 Nov 28 j 02:48	0°♊		evening set	-1660 Dec 23 j 16:17	4°♊15'17	
retrograde	-1665 Feb 27 j 21:02	5°♊57'19		conjunction	-1659 Jan 09 j 13:17	6°♊19'04	0°-36'-1
opposition	-1665 May 09 j 13:57	2°♊39'56	2°10'47	minimum elong	-1659 Jan 09 j 13:16	6°♊19'04	0°36'03
min. Earth dist.	-1665 May 09 j 23:35	2°♊38'10	9.12561 AU	max. Earth dist.	-1659 Jan 09 j 04:11	6°♊16'16	10.64248 AU
	-1665 Jun 20 j 21:32	30°♊		morning rise	-1659 Jan 26 j 14:26	8°♊24'08	
direct	-1665 Jul 19 j 18:09	29°♊21'09		retrograde	-1659 May 11 j 19:13	16°♊04'23	
	-1665 Aug 17 j 04:42	0°♊		opposition	-1659 Jul 21 j 04:56	12°♊39'36	-1°-2'-41
evening set	-1665 Oct 28 j 17:59	6°♊18'57		min. Earth dist.	-1659 Jul 21 j 11:36	12°♊38'19	8.57668 AU
conjunction	-1665 Nov 14 j 05:25	8°♊14'08	1°37'40	direct	-1659 Sep 27 j 11:35	9°♊19'00	
minimum elong	-1665 Nov 14 j 05:27	8°♊14'09	1°37'40	evening set	-1658 Jan 05 j 06:16	16°♊42'50	
max. Earth dist.	-1665 Nov 13 j 17:36	8°♊10'40	11.10653 AU	conjunction	-1658 Jan 22 j 06:17	18°♊49'13	-1°-4'-40
morning rise	-1665 Nov 30 j 16:55	10°♊09'22		minimum elong	-1658 Jan 22 j 06:15	18°♊49'12	1°04'43
	-1664 Jan 18 j 05:23	15°♊		max. Earth dist.	-1658 Jan 21 j 23:58	18°♊47'14	10.51118 AU
retrograde	-1664 Mar 10 j 16:25	17°♊08'36		morning rise	-1658 Feb 08 j 10:47	20°♊57'03	
	-1664 May 04 j 10:35	15°♊		retrograde	-1658 May 25 j 12:17	28°♊48'29	
opposition	-1664 May 20 j 13:56	13°♊50'23	1°46'16	opposition	-1658 Aug 03 j 12:07	25°♊22'13	-1°-37'-4
min. Earth dist.	-1664 May 21 j 00:25	13°♊48'28	9.08328 AU	min. Earth dist.	-1658 Aug 03 j 16:16	25°♊21'24	8.44479 AU
direct	-1664 Jul 30 j 10:50	10°♊31'49		direct	-1658 Oct 10 j 04:26	22°♊00'38	
	-1664 Oct 16 j 04:12	15°♊		evening set	-1657 Jan 18 j 07:38	29°♊33'35	
evening set	-1664 Nov 07 j 21:56	17°♊30'05			-1657 Jan 21 j 20:40	0°♊	
conjunction	-1664 Nov 24 j 10:22	19°♊26'13	1°15'41	conjunction	-1657 Feb 04 j 10:51	1°♊42'42	-1°-30'-54
minimum elong	-1664 Nov 24 j 10:24	19°♊26'13	1°15'40	minimum elong	-1657 Feb 04 j 10:48	1°♊42'41	1°30'56
max. Earth dist.	-1664 Nov 23 j 22:32	19°♊22'43	11.05275 AU	max. Earth dist.	-1657 Feb 04 j 07:06	1°♊41'30	10.37958 AU
morning rise	-1664 Dec 10 j 23:42	21°♊22'40		morning rise	-1657 Feb 21 j 18:51	3°♊53'23	
retrograde	-1663 Mar 22 j 15:48	28°♊27'16		retrograde	-1657 Jun 08 j 14:15	11°♊55'57	
opposition	-1663 Jun 01 j 16:31	25°♊08'01	1°17'23	opposition	-1657 Aug 17 j 02:29	8°♊28'15	-2°-7'-33
min. Earth dist.	-1663 Jun 02 j 02:39	25°♊06'09	9.01745 AU	min. Earth dist.	-1657 Aug 17 j 04:04	8°♊27'56	8.31613 AU
direct	-1663 Aug 11 j 03:33	21°♊49'29		direct	-1657 Oct 23 j 05:30	5°♊05'33	
evening set	-1663 Nov 19 j 05:02	28°♊49'47		evening set	-1656 Jan 31 j 21:01	12°♊48'14	
	-1663 Nov 29 j 03:59	0°♊					
conjunction	-1663 Dec 05 j 19:07	0°♊47'17	0°50'28	conjunction	-1656 Feb 18 j 03:40	15°♊00'08	-1°-53'-2
minimum elong	-1663 Dec 05 j 19:09	0°♊47'18	0°50'26	minimum elong	-1656 Feb 18 j 03:37	15°♊00'08	1°53'04

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 21

Attention, astronomical year style is used: The year -1656 in astronomical counting style is the year 1657 BCE in historical counting style.

max. Earth dist.	-1656 Feb 18 j 02:11	14° $\approx$ 59'40	10.25445 AU	morning rise	-1650 Jun 04 j 18:18	12° $\approx$ 59'59	
	-1656 Feb 18 j 03:14	15° $\approx$			-1650 Jun 20 j 17:46	15° $\approx$	
morning rise	-1656 Mar 06 j 15:19	17° $\approx$ 13'39		retrograde	-1650 Sep 17 j 18:48	21° $\approx$ 19'21	
retrograde	-1656 Jun 22 j 00:12	25° $\approx$ 26'30		opposition	-1650 Nov 23 j 06:27	17° $\approx$ 50'13	-1°-37'-32
opposition	-1656 Aug 29 j 23:41	21° $\approx$ 57'34	-2°-32'-3	min. Earth dist.	-1650 Nov 22 j 20:36	17° $\approx$ 52'16	7.99014 AU
min. Earth dist.	-1656 Aug 29 j 23:13	21° $\approx$ 57'40	8.19733 AU		-1649 Jan 02 j 07:16	15° $\approx$ R $\approx$	
direct	-1656 Nov 04 j 15:13	18° $\approx$ 33'37		direct	-1649 Jan 29 j 01:25	14° $\approx$ 20'32	
evening set	-1655 Feb 13 j 22:25	26° $\approx$ 26'08			-1649 Feb 24 j 19:52	15° $\approx$	
				evening set	-1649 May 14 j 17:43	22° $\approx$ 39'09	
conjunction	-1655 Mar 03 j 08:44	28° $\approx$ 40'45	-2°-9'-26				
minimum elong	-1655 Mar 03 j 08:42	28° $\approx$ 40'44	2°09'27	conjunction	-1649 Jun 01 j 22:48	25° $\approx$ 00'33	-1°-2'-53
max. Earth dist.	-1655 Mar 03 j 09:28	28° $\approx$ 40'59	10.14239 AU	minimum elong	-1649 Jun 01 j 22:51	25° $\approx$ 00'34	1°02'53
	-1655 Mar 13 j 13:59	0° $\approx$		max. Earth dist.	-1649 Jun 02 j 12:00	25° $\approx$ 04'51	10.02371 AU
morning rise	-1655 Mar 21 j 00:04	0° $\approx$ 56'56		morning rise	-1649 Jun 20 j 02:27	27° $\approx$ 21'29	
retrograde	-1655 Jul 06 j 16:42	9° $\approx$ 18'21			-1649 Jul 11 j 15:23	0° $\approx$ II	
opposition	-1655 Sep 13 j 02:44	5° $\approx$ 48'27	-2°-48'-29	retrograde	-1649 Oct 02 j 00:43	5° $\approx$ II31'18	
min. Earth dist.	-1655 Sep 13 j 00:38	5° $\approx$ 48'52	8.09473 AU	opposition	-1649 Dec 07 j 10:33	2° $\approx$ II03'26	0°-58'-46
direct	-1655 Nov 18 j 09:32	2° $\approx$ 23'10		min. Earth dist.	-1649 Dec 07 j 00:59	2° $\approx$ II05'25	8.06472 AU
evening set	-1654 Feb 28 j 10:48	10° $\approx$ 24'57			-1648 Jan 03 j 03:27	30° $\approx$ R $\approx$	
				direct	-1648 Feb 12 j 18:23	28° $\approx$ 33'39	
conjunction	-1654 Mar 18 j 01:07	12° $\approx$ 42'04	-2°-18'-38		-1648 Mar 24 j 04:22	0° $\approx$ II	
minimum elong	-1654 Mar 18 j 01:06	12° $\approx$ 42'04	2°18'39	evening set	-1648 May 28 j 19:56	6° $\approx$ II47'53	
max. Earth dist.	-1654 Mar 18 j 04:15	12° $\approx$ 43'05	10.04954 AU				
morning rise	-1654 Apr 04 j 20:04	15° $\approx$ 00'40		conjunction	-1648 Jun 16 j 00:04	9° $\approx$ II07'31	0°-30'-30
retrograde	-1654 Jul 21 j 13:20	23° $\approx$ 28'13		minimum elong	-1648 Jun 16 j 00:05	9° $\approx$ II07'32	0°30'29
opposition	-1654 Sep 27 j 10:37	19° $\approx$ 57'40	-2°-55'-9	max. Earth dist.	-1648 Jun 16 j 12:32	9° $\approx$ II11'32	10.11233 AU
min. Earth dist.	-1654 Sep 27 j 07:01	19° $\approx$ 58'24	8.01375 AU	morning rise	-1648 Jul 04 j 01:34	11° $\approx$ II26'18	
direct	-1654 Dec 02 j 12:30	16° $\approx$ 31'07		retrograde	-1648 Oct 14 j 20:54	19° $\approx$ II25'08	
evening set	-1653 Mar 15 j 08:34	24° $\approx$ 40'56		opposition	-1648 Dec 20 j 08:49	15° $\approx$ II58'46	0°-17'-22
				min. Earth dist.	-1648 Dec 19 j 23:58	16° $\approx$ II00'35	8.16483 AU
conjunction	-1653 Apr 02 j 03:07	27° $\approx$ 00'17	-2°-19'-33	direct	-1647 Feb 26 j 08:02	12° $\approx$ II29'12	
minimum elong	-1653 Apr 02 j 03:08	27° $\approx$ 00'18	2°19'33	asc. node	-1647 May 27 j 10:24	18° $\approx$ II39'36	
max. Earth dist.	-1653 Apr 02 j 08:54	27° $\approx$ 02'12	9.98093 AU	evening set	-1647 Jun 12 j 13:35	20° $\approx$ II37'04	
morning rise	-1653 Apr 20 j 01:30	29° $\approx$ 20'53					
	-1653 Apr 25 j 03:48	0° $\approx$ Y		conjunction	-1647 Jun 30 j 15:06	22° $\approx$ II54'10	0°03'04
retrograde	-1653 Aug 05 j 11:59	7° $\approx$ Y51'36		minimum elong	-1647 Jun 30 j 15:06	22° $\approx$ II54'10	0°03'06
opposition	-1653 Oct 11 j 21:40	4° $\approx$ Y20'48	-2°-51'00	behind sun begin	-1647 Jun 30 j 07:49	22° $\approx$ II51'52	
min. Earth dist.	-1653 Oct 11 j 16:15	4° $\approx$ Y21'56	7.95920 AU	behind sun end	-1647 Jun 30 j 22:23	22° $\approx$ II56'28	
direct	-1653 Dec 16 j 22:43	0° $\approx$ Y53'09		max. Earth dist.	-1647 Jul 01 j 02:08	22° $\approx$ II57'40	10.22313 AU
evening set	-1652 Mar 29 j 13:51	9° $\approx$ Y09'11		morning rise	-1647 Jul 18 j 13:05	25° $\approx$ II10'06	
					-1647 Aug 30 j 17:12	0° $\approx$ ☾	
conjunction	-1652 Apr 16 j 12:26	11° $\approx$ Y30'17	-2°-11'-43	retrograde	-1647 Oct 28 j 06:27	2° $\approx$ ☾57'30	
minimum elong	-1652 Apr 16 j 12:29	11° $\approx$ Y30'18	2°11'43		-1647 Dec 28 j 08:39	30° $\approx$ R $\approx$ II	
max. Earth dist.	-1652 Apr 16 j 20:53	11° $\approx$ Y33'04	9.94151 AU	opposition	-1646 Jan 03 j 00:10	29° $\approx$ II32'43	0°23'53
morning rise	-1652 May 04 j 13:44	13° $\approx$ Y52'15		min. Earth dist.	-1646 Jan 02 j 16:08	29° $\approx$ II34'20	8.28398 AU
retrograde	-1652 Aug 19 j 09:50	22° $\approx$ Y22'38		direct	-1646 Mar 12 j 15:29	26° $\approx$ II03'40	
opposition	-1652 Oct 25 j 09:57	18° $\approx$ Y52'00	-2°-35'-54		-1646 May 22 j 04:07	0° $\approx$ ☾	
min. Earth dist.	-1652 Oct 25 j 02:36	18° $\approx$ Y53'32	7.93575 AU	evening set	-1646 Jun 26 j 21:09	4° $\approx$ ☾03'48	
direct	-1652 Dec 30 j 13:40	15° $\approx$ Y23'26					
evening set	-1651 Apr 13 j 23:27	23° $\approx$ Y43'10		conjunction	-1646 Jul 14 j 18:48	6° $\approx$ ☾17'52	0°35'33
				minimum elong	-1646 Jul 14 j 18:46	6° $\approx$ ☾17'51	0°35'34
conjunction	-1651 May 02 j 01:26	26° $\approx$ Y05'16	-1°-55'-29	max. Earth dist.	-1646 Jul 15 j 03:59	6° $\approx$ ☾20'44	10.34913 AU
minimum elong	-1651 May 02 j 01:30	26° $\approx$ Y05'18	1°55'29	morning rise	-1646 Aug 01 j 12:09	8° $\approx$ ☾30'31	
max. Earth dist.	-1651 May 02 j 12:18	26° $\approx$ Y08'51	9.93522 AU	retrograde	-1646 Nov 10 j 07:45	16° $\approx$ ☾06'39	
morning rise	-1651 May 20 j 04:48	28° $\approx$ Y27'50		opposition	-1645 Jan 16 j 08:06	12° $\approx$ ☾43'28	1°02'37
	-1651 Jun 01 j 07:42	0° $\approx$ ☾		min. Earth dist.	-1645 Jan 16 j 00:53	12° $\approx$ ☾44'54	8.41495 AU
retrograde	-1651 Sep 03 j 04:49	6° $\approx$ ☾54'17		direct	-1645 Mar 26 j 14:55	9° $\approx$ ☾15'14	
opposition	-1651 Nov 08 j 21:37	3° $\approx$ ☾24'14	-2°-10'-47	evening set	-1645 Jul 10 j 17:33	17° $\approx$ ☾06'51	
min. Earth dist.	-1651 Nov 08 j 12:37	3° $\approx$ ☾26'06	7.94616 AU				
	-1650 Jan 04 j 21:16	30° $\approx$ R $\approx$ Y		conjunction	-1645 Jul 28 j 10:24	19° $\approx$ ☾17'36	1°05'23
direct	-1650 Jan 14 j 07:01	29° $\approx$ Y54'59		minimum elong	-1645 Jul 28 j 10:21	19° $\approx$ ☾17'35	1°05'25
	-1650 Jan 23 j 16:56	0° $\approx$ ☾		max. Earth dist.	-1645 Jul 28 j 17:52	19° $\approx$ ☾19'55	10.48305 AU
evening set	-1650 Apr 29 j 09:46	8° $\approx$ ☾15'31		morning rise	-1645 Aug 14 j 22:20	21° $\approx$ ☾26'48	
				retrograde	-1645 Nov 23 j 00:14	25° $\approx$ ☾52'29	
conjunction	-1650 May 17 j 14:03	10° $\approx$ ☾37'46	-1°-31'-57	opposition	-1644 Jan 29 j 09:05	25° $\approx$ ☾30'50	1°36'58
minimum elong	-1650 May 17 j 14:07	10° $\approx$ ☾37'47	1°31'56	min. Earth dist.	-1644 Jan 29 j 03:02	25° $\approx$ ☾32'01	8.55050 AU
max. Earth dist.	-1650 May 18 j 02:42	10° $\approx$ ☾41'55	9.96325 AU	direct	-1644 Apr 08 j 06:17	22° $\approx$ ☾03'38	

Attention, astronomical year style is used: The year -1644 in astronomical counting style is the year 1645 BCE in historical counting style.

evening set	-1644 Jul 23 j 02:19	29° <del>5</del> 46'27		conjunction	-1638 Oct 18 j 13:16	11° <del>5</del> 28'17	2°13'55
	-1644 Jul 24 j 23:30	0° <del>0</del>		minimum elong	-1638 Oct 18 j 13:17	11° <del>5</del> 28'18	2°13'53
				max. Earth dist.	-1638 Oct 18 j 05:08	11° <del>5</del> 25'55	11.15124 AU
conjunction	-1644 Aug 09 j 13:50	1° <del>0</del> 53'50	1°31'15	morning rise	-1638 Nov 03 j 23:22	13° <del>5</del> 22'28	
minimum elong	-1644 Aug 09 j 13:47	1° <del>0</del> 53'49	1°31'16	retrograde	-1637 Feb 11 j 13:38	20° <del>5</del> 14'27	
max. Earth dist.	-1644 Aug 09 j 19:48	1° <del>0</del> 55'39	10.61790 AU	opposition	-1637 Apr 22 j 20:54	16° <del>5</del> 58'15	2°36'49
morning rise	-1644 Aug 26 j 20:06	3° <del>0</del> 59'38		min. Earth dist.	-1637 Apr 23 j 04:39	16° <del>5</del> 56'50	9.16185 AU
retrograde	-1644 Dec 04 j 08:56	11° <del>0</del> 16'03		direct	-1637 Jul 03 j 08:29	13° <del>5</del> 39'15	
opposition	-1643 Feb 10 j 03:28	7° <del>0</del> 55'50	2°05'39	evening set	-1637 Oct 13 j 04:41	20° <del>5</del> 38'15	
min. Earth dist.	-1643 Feb 09 j 23:29	7° <del>0</del> 56'37	8.68394 AU				
direct	-1643 Apr 21 j 13:27	4° <del>0</del> 29'49		conjunction	-1637 Oct 29 j 15:57	22° <del>5</del> 32'42	2°02'14
evening set	-1643 Aug 04 j 23:57	12° <del>0</del> 04'00		minimum elong	-1637 Oct 29 j 15:59	22° <del>5</del> 32'43	2°02'14
				max. Earth dist.	-1637 Oct 29 j 06:25	22° <del>5</del> 29'55	11.16248 AU
conjunction	-1643 Aug 22 j 06:02	14° <del>0</del> 08'11	1°52'14	morning rise	-1637 Nov 15 j 01:59	24° <del>5</del> 26'50	
minimum elong	-1643 Aug 22 j 05:59	14° <del>0</del> 08'10	1°52'15		-1636 Jan 13 j 04:48	0° <del>0</del>	
max. Earth dist.	-1643 Aug 22 j 09:27	14° <del>0</del> 09'13	10.74744 AU	retrograde	-1636 Feb 23 j 03:08	1° <del>0</del> 20'14	
	-1643 Aug 29 j 09:45	15° <del>0</del>			-1636 Apr 05 j 08:13	30° <del>0</del> 00'	
morning rise	-1643 Sep 08 j 06:56	16° <del>0</del> 10'51		opposition	-1636 May 03 j 18:07	28° <del>5</del> 03'40	2°19'44
retrograde	-1643 Dec 16 j 11:07	23° <del>0</del> 19'19		min. Earth dist.	-1636 May 04 j 02:33	28° <del>5</del> 02'08	9.15967 AU
opposition	-1642 Feb 22 j 15:42	20° <del>0</del> 00'25	2°27'53	direct	-1636 Jul 14 j 01:45	24° <del>5</del> 45'18	
min. Earth dist.	-1642 Feb 22 j 14:17	20° <del>0</del> 00'41	8.80931 AU		-1636 Oct 07 j 21:35	0° <del>0</del>	
direct	-1642 May 04 j 11:17	16° <del>0</del> 35'40		evening set	-1636 Oct 23 j 06:48	1° <del>0</del> 42'32	
evening set	-1642 Aug 17 j 11:11	24° <del>0</del> 01'42					
				conjunction	-1636 Nov 08 j 18:07	3° <del>0</del> 37'12	1°46'00
conjunction	-1642 Sep 03 j 12:06	26° <del>0</del> 03'01	2°07'48	minimum elong	-1636 Nov 08 j 18:09	3° <del>0</del> 37'13	1°45'59
minimum elong	-1642 Sep 03 j 12:04	26° <del>0</del> 03'01	2°07'49	max. Earth dist.	-1636 Nov 08 j 08:17	3° <del>0</del> 34'19	11.14746 AU
max. Earth dist.	-1642 Sep 03 j 12:16	26° <del>0</del> 03'04	10.86617 AU	morning rise	-1636 Nov 25 j 04:49	5° <del>0</del> 31'47	
morning rise	-1642 Sep 20 j 08:21	28° <del>0</del> 02'58		retrograde	-1635 Mar 05 j 21:40	12° <del>0</del> 28'11	
	-1642 Oct 07 j 13:48	0° <del>0</del>		opposition	-1635 May 15 j 16:32	9° <del>0</del> 10'59	1°57'24
retrograde	-1642 Dec 28 j 05:55	5° <del>0</del> 05'00		min. Earth dist.	-1635 May 16 j 01:26	9° <del>0</del> 09'22	9.13101 AU
opposition	-1641 Mar 06 j 22:54	1° <del>0</del> 47'10	2°43'15	direct	-1635 Jul 25 j 17:46	5° <del>0</del> 53'00	
min. Earth dist.	-1641 Mar 06 j 23:30	1° <del>0</del> 47'03	8.92129 AU	evening set	-1635 Nov 03 j 09:38	12° <del>0</del> 49'54	
	-1641 Mar 31 j 21:34	30° <del>0</del> 00'					
direct	-1641 May 17 j 03:27	28° <del>0</del> 23'44		conjunction	-1635 Nov 19 j 21:31	14° <del>0</del> 45'17	1°25'40
	-1641 Jul 01 j 12:04	0° <del>0</del>		minimum elong	-1635 Nov 19 j 21:34	14° <del>0</del> 45'17	1°25'39
evening set	-1641 Aug 29 j 13:02	5° <del>0</del> 42'20		max. Earth dist.	-1635 Nov 19 j 10:27	14° <del>0</del> 42'02	11.10616 AU
					-1635 Nov 21 j 23:39	15° <del>0</del>	
conjunction	-1641 Sep 15 j 09:27	7° <del>0</del> 41'13	2°17'43	morning rise	-1635 Dec 06 j 09:43	16° <del>0</del> 40'50	
minimum elong	-1641 Sep 15 j 09:26	7° <del>0</del> 41'13	2°17'44	retrograde	-1634 Mar 17 j 18:39	23° <del>0</del> 41'47	
max. Earth dist.	-1641 Sep 15 j 07:06	7° <del>0</del> 40'31	10.96932 AU	opposition	-1634 May 27 j 17:15	20° <del>0</del> 23'42	1°30'25
morning rise	-1641 Oct 02 j 01:45	9° <del>0</del> 38'54		min. Earth dist.	-1634 May 28 j 03:27	20° <del>0</del> 21'49	9.07628 AU
retrograde	-1640 Jan 08 j 22:46	16° <del>0</del> 36'06		direct	-1634 Aug 06 j 08:13	17° <del>0</del> 05'49	
opposition	-1640 Mar 18 j 01:56	13° <del>0</del> 19'05	2°51'38	evening set	-1634 Nov 14 j 14:48	24° <del>0</del> 04'01	
min. Earth dist.	-1640 Mar 18 j 03:50	13° <del>0</del> 18'44	9.01549 AU				
direct	-1640 May 28 j 13:31	9° <del>0</del> 56'58		conjunction	-1634 Dec 01 j 03:49	26° <del>0</del> 00'33	1°01'51
evening set	-1640 Sep 09 j 06:53	17° <del>0</del> 08'59		minimum elong	-1634 Dec 01 j 03:51	26° <del>0</del> 00'34	1°01'49
				max. Earth dist.	-1634 Nov 30 j 15:12	25° <del>0</del> 56'49	11.03936 AU
conjunction	-1640 Sep 25 j 23:46	19° <del>0</del> 05'58	2°21'56	morning rise	-1634 Dec 17 j 18:17	27° <del>0</del> 57'33	
minimum elong	-1640 Sep 25 j 23:46	19° <del>0</del> 05'58	2°21'57		-1633 Jan 05 j 00:21	0° <del>0</del>	
max. Earth dist.	-1640 Sep 25 j 20:05	19° <del>0</del> 04'53	11.05304 AU	retrograde	-1633 Mar 29 j 21:25	5° <del>0</del> 44'45	
morning rise	-1640 Oct 12 j 12:55	21° <del>0</del> 01'54		opposition	-1633 Jun 08 j 21:40	1° <del>0</del> 45'30	0°59'32
retrograde	-1639 Jan 19 j 12:59	27° <del>0</del> 55'48		min. Earth dist.	-1633 Jun 09 j 08:44	1° <del>0</del> 43'28	8.99683 AU
opposition	-1639 Mar 30 j 01:53	24° <del>0</del> 39'21	2°53'11		-1633 Jul 03 j 23:53	30° <del>0</del> 00'	
min. Earth dist.	-1639 Mar 30 j 05:25	24° <del>0</del> 38'42	9.08854 AU	direct	-1633 Aug 18 j 02:37	28° <del>0</del> 27'27	
direct	-1639 Jun 09 j 15:01	21° <del>0</del> 18'27			-1633 Sep 30 j 17:12	0° <del>0</del>	
evening set	-1639 Sep 20 j 18:18	28° <del>0</del> 24'55		evening set	-1633 Nov 26 j 00:00	5° <del>0</del> 28'37	
	-1639 Oct 04 j 10:19	0° <del>0</del>					
conjunction	-1639 Oct 07 j 08:29	0° <del>0</del> 20'31	2°20'35	conjunction	-1633 Dec 12 j 14:51	7° <del>0</del> 26'46	0°35'14
minimum elong	-1639 Oct 07 j 08:29	0° <del>0</del> 20'31	2°20'35	minimum elong	-1633 Dec 12 j 14:53	7° <del>0</del> 26'47	0°35'12
max. Earth dist.	-1639 Oct 07 j 03:03	0° <del>0</del> 18'56	11.11437 AU	max. Earth dist.	-1633 Dec 12 j 02:10	7° <del>0</del> 22'59	10.94900 AU
morning rise	-1639 Oct 23 j 19:32	2° <del>0</del> 15'18		morning rise	-1633 Dec 29 j 08:00	9° <del>0</del> 25'39	
retrograde	-1638 Jan 31 j 01:15	9° <del>0</del> 07'28		retrograde	-1632 Apr 10 j 07:23	16° <del>0</del> 40'43	
opposition	-1638 Apr 10 j 23:52	5° <del>0</del> 51'17	2°48'07	opposition	-1632 Jun 20 j 06:37	13° <del>0</del> 20'05	0°25'38
min. Earth dist.	-1638 Apr 11 j 05:49	5° <del>0</del> 50'12	9.13787 AU	min. Earth dist.	-1632 Jun 20 j 17:17	13° <del>0</del> 21'8'06	8.89552 AU
direct	-1638 Jun 21 j 13:25	2° <del>0</del> 31'26		direct	-1632 Aug 28 j 23:31	10° <del>0</del> 20'13'7	
evening set	-1638 Oct 02 j 01:04	9° <del>0</del> 33'32		evening set	-1632 Dec 06 j 15:27	17° <del>0</del> 27'22	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 23

Attention, astronomical year style is used: The year -1632 in astronomical counting style is the year 1633 BCE in historical counting style.

conjunction	-1632 Dec 23 j 08:41	19°♂07'32	0°06'42	opposition	-1626 Sep 07 j 02:43	29°♂45'34	-2°-42'-16
minimum elong	-1632 Dec 23 j 08:41	19°♂07'32	0°06'40	min. Earth dist.	-1626 Sep 07 j 02:11	29°♂45'40	8.12379 AU
behind sun begin	-1632 Dec 23 j 02:07	19°♂05'35		direct	-1626 Nov 12 j 14:01	26°♂20'19	
behind sun end	-1632 Dec 23 j 15:14	19°♂09'30			-1625 Jan 16 j 13:05	0°♂	
max. Earth dist.	-1632 Dec 22 j 21:11	19°♂04'05	10.83863 AU	evening set	-1625 Feb 22 j 05:43	4°♂18'34	
morning rise	-1631 Jan 09 j 04:44	21°♂08'39					
desc. node	-1631 Mar 18 j 18:47	27°♂32'41		conjunction	-1625 Mar 11 j 18:24	6°♂34'48	-2°-15'-29
retrograde	-1631 Apr 23 j 01:37	28°♂32'58		minimum elong	-1625 Mar 11 j 18:22	6°♂34'48	2°15'30
opposition	-1631 Jul 02 j 20:53	25°♂10'45	0°-10'-10	max. Earth dist.	-1625 Mar 11 j 20:42	6°♂35'34	10.07152 AU
min. Earth dist.	-1631 Jul 03 j 06:09	25°♂09'00	8.77669 AU	morning rise	-1625 Mar 29 j 11:38	8°♂52'34	
direct	-1631 Sep 10 j 00:42	21°♂51'36		retrograde	-1625 Jul 15 j 05:28	17°♂18'33	
evening set	-1631 Dec 18 j 14:51	29°♂03'32		opposition	-1625 Sep 21 j 08:47	13°♂47'36	-2°-53'-33
	-1631 Dec 26 j 10:07	0°♂		min. Earth dist.	-1625 Sep 21 j 05:30	13°♂48'17	8.02830 AU
				direct	-1625 Nov 26 j 12:54	10°♂21'03	
conjunction	-1630 Jan 04 j 10:35	1°♂06'01	0°-22'-51	evening set	-1624 Mar 07 j 23:52	18°♂28'15	
minimum elong	-1630 Jan 04 j 10:34	1°♂06'01	0°22'54				
max. Earth dist.	-1630 Jan 03 j 23:53	1°♂02'46	10.71306 AU	conjunction	-1624 Mar 25 j 16:39	20°♂46'56	-2°-20'-15
morning rise	-1630 Jan 21 j 09:55	3°♂09'41		minimum elong	-1624 Mar 25 j 16:40	20°♂46'56	2°20'16
retrograde	-1630 May 06 j 05:50	10°♂44'22		max. Earth dist.	-1624 Mar 25 j 21:48	20°♂48'37	9.98843 AU
opposition	-1630 Jul 15 j 17:42	7°♂20'29	0°-46'-35	morning rise	-1624 Apr 12 j 13:31	23°♂06'57	
min. Earth dist.	-1630 Jul 16 j 01:40	7°♂18'58	8.64554 AU		-1624 Jun 16 j 03:37	0°♂	
direct	-1630 Sep 22 j 06:40	4°♂00'25		retrograde	-1624 Jul 29 j 04:23	1°♂37'42	
evening set	-1630 Dec 30 j 23:36	11°♂19'56			-1624 Sep 10 j 14:31	30°♂	
				opposition	-1624 Oct 04 j 19:04	28°♂06'17	-2°-54'-23
conjunction	-1629 Jan 16 j 22:04	13°♂24'59	0°-52'-2	min. Earth dist.	-1624 Oct 04 j 13:41	28°♂07'24	7.95971 AU
minimum elong	-1629 Jan 16 j 22:02	13°♂24'58	0°52'04	direct	-1624 Dec 09 j 19:42	24°♂38'31	
max. Earth dist.	-1629 Jan 16 j 12:18	13°♂21'57	10.57786 AU		-1623 Feb 27 j 20:35	0°♂	
morning rise	-1629 Feb 03 j 00:57	15°♂31'26		evening set	-1623 Mar 23 j 02:31	2°♂52'56	
retrograde	-1629 May 19 j 17:27	23°♂17'17					
opposition	-1629 Jul 28 j 21:31	19°♂51'41	-1°-21'-59	conjunction	-1623 Apr 09 j 23:19	5°♂13'36	-2°-16'-22
min. Earth dist.	-1629 Jul 29 j 04:13	19°♂50'23	8.50803 AU	minimum elong	-1623 Apr 09 j 23:21	5°♂13'36	2°16'23
direct	-1629 Oct 04 j 19:47	16°♂30'27		max. Earth dist.	-1623 Apr 10 j 06:57	5°♂16'07	9.93509 AU
evening set	-1628 Jan 12 j 19:17	23°♂58'51		morning rise	-1623 Apr 27 j 23:25	7°♂35'19	
				retrograde	-1623 Aug 13 j 03:43	16°♂07'19	
conjunction	-1628 Jan 29 j 20:51	26°♂06'39	-1°-19'-30	opposition	-1623 Oct 19 j 07:35	12°♂35'54	-2°-44'-9
minimum elong	-1628 Jan 29 j 20:48	26°♂06'38	1°19'32	min. Earth dist.	-1623 Oct 19 j 00:39	12°♂37'21	7.92274 AU
max. Earth dist.	-1628 Jan 29 j 13:05	26°♂04'13	10.43923 AU	direct	-1623 Dec 24 j 08:42	9°♂07'08	
morning rise	-1628 Feb 16 j 03:21	28°♂16'00		evening set	-1622 Apr 07 j 10:52	17°♂26'21	
	-1628 Mar 01 j 13:36	0°♂					
retrograde	-1628 Jun 01 j 13:41	6°♂13'18		conjunction	-1622 Apr 25 j 11:21	19°♂48'22	-2°-3'-48
opposition	-1628 Aug 10 j 08:17	2°♂46'02	-1°-54'-27	minimum elong	-1622 Apr 25 j 11:24	19°♂48'23	2°03'49
min. Earth dist.	-1628 Aug 10 j 13:20	2°♂45'03	8.37065 AU	max. Earth dist.	-1622 Apr 25 j 21:16	19°♂51'39	9.91540 AU
	-1628 Sep 20 j 13:20	30°♂		morning rise	-1622 May 13 j 14:04	22°♂11'02	
direct	-1628 Oct 16 j 18:04	29°♂23'31			-1622 Jul 31 j 23:57	0°♂	
	-1628 Nov 11 j 13:43	0°♂		retrograde	-1622 Aug 28 j 00:48	0°♂40'35	
evening set	-1627 Jan 25 j 02:43	7°♂01'42			-1622 Sep 24 j 02:43	30°♂	
				opposition	-1622 Nov 02 j 20:15	27°♂09'39	-2°-23'-17
conjunction	-1627 Feb 11 j 07:45	9°♂12'22	-1°-43'-40	min. Earth dist.	-1622 Nov 02 j 11:58	27°♂11'23	7.92018 AU
minimum elong	-1627 Feb 11 j 07:42	9°♂12'21	1°43'42	direct	-1621 Jan 08 j 01:45	23°♂40'08	
max. Earth dist.	-1627 Feb 11 j 03:09	9°♂10'53	10.30387 AU		-1621 Apr 06 j 19:27	0°♂	
morning rise	-1627 Feb 28 j 17:49	11°♂24'38		evening set	-1621 Apr 22 j 21:40	2°♂01'25	
	-1627 Mar 31 j 09:05	15°♂					
retrograde	-1627 Jun 15 j 19:17	19°♂33'01		conjunction	-1621 May 11 j 01:01	4°♂23'57	-1°-43'-19
opposition	-1627 Aug 24 j 02:11	16°♂04'14	-2°-21'-55	minimum elong	-1621 May 11 j 01:05	4°♂23'58	1°43'19
min. Earth dist.	-1627 Aug 24 j 04:38	16°♂03'45	8.24021 AU	max. Earth dist.	-1621 May 11 j 12:44	4°♂27'48	9.93085 AU
	-1627 Sep 06 j 16:59	15°♂		morning rise	-1621 May 29 j 05:19	6°♂46'41	
direct	-1627 Oct 30 j 00:17	12°♂40'22			-1621 Aug 29 j 04:49	15°♂	
	-1627 Dec 20 j 04:15	15°♂		retrograde	-1621 Sep 11 j 17:29	15°♂10'21	
evening set	-1626 Feb 07 j 22:15	20°♂28'42			-1621 Sep 25 j 06:01	15°♂	
				opposition	-1621 Nov 17 j 06:59	11°♂40'20	-1°-53'-19
conjunction	-1626 Feb 25 j 06:59	22°♂42'13	-2°-2'-51	min. Earth dist.	-1621 Nov 16 j 21:34	11°♂42'18	7.95233 AU
minimum elong	-1626 Feb 25 j 06:56	22°♂42'12	2°02'53	direct	-1620 Jan 22 j 21:26	8°♂10'25	
max. Earth dist.	-1626 Feb 25 j 05:54	22°♂41'52	10.17888 AU		-1620 Apr 25 j 06:36	15°♂	
morning rise	-1626 Mar 14 j 20:35	24°♂57'20		evening set	-1620 May 07 j 07:32	16°♂30'56	
	-1626 Apr 28 j 05:38	0°♂					
retrograde	-1626 Jun 30 j 09:40	3°♂15'36		conjunction	-1620 May 25 j 12:26	18°♂53'01	-1°-16'-26
	-1626 Sep 04 j 03:24	30°♂		minimum elong	-1620 May 25 j 12:29	18°♂53'02	1°16'25

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 24

Attention, astronomical year style is used: The year -1620 in astronomical counting style is the year 1621 BCE in historical counting style.

max. Earth dist.	-1620 May 26 j 01:22	18° $\text{♁}$ 57'15	9.98038 AU	minimum elong	-1614 Aug 17 j 04:41	9° $\text{♁}$ 07'00	1°43'41
morning rise	-1620 Jun 12 j 16:47	21° $\text{♁}$ 14'52		max. Earth dist.	-1614 Aug 17 j 08:34	9° $\text{♁}$ 08'11	10.69985 AU
retrograde	-1620 Sep 25 j 02:44	29° $\text{♁}$ 29'53		morning rise	-1614 Sep 03 j 08:07	11° $\text{♁}$ 11'00	
opposition	-1620 Nov 30 j 13:47	26° $\text{♁}$ 01'10	-1°-16'-35		-1614 Oct 08 j 05:42	15° $\text{♁}$	
min. Earth dist.	-1620 Nov 30 j 03:21	26° $\text{♁}$ 03'20	8.01711 AU	retrograde	-1614 Dec 11 j 15:56	18° $\text{♁}$ 22'47	
direct	-1619 Feb 05 j 16:18	22° $\text{♁}$ 31'13		opposition	-1613 Feb 17 j 15:43	15° $\text{♁}$ 03'46	2°18'56
	-1619 May 16 j 03:29	0° $\text{♁}$		min. Earth dist.	-1613 Feb 17 j 12:46	15° $\text{♁}$ 04'20	8.76405 AU
evening set	-1619 May 22 j 13:03	0° $\text{♁}$ 48'19			-1613 Feb 18 j 11:22	15° $\text{♁}$	
				direct	-1613 Apr 29 j 07:29	11° $\text{♁}$ 38'55	
conjunction	-1619 Jun 09 j 17:53	3° $\text{♁}$ 09'00	0°-45'-10		-1613 Jul 04 j 20:44	15° $\text{♁}$	
minimum elong	-1619 Jun 09 j 17:56	3° $\text{♁}$ 09'01	0°45'10	evening set	-1613 Aug 12 j 12:29	19° $\text{♁}$ 08'28	
max. Earth dist.	-1619 Jun 10 j 07:37	3° $\text{♁}$ 13'27	10.06068 AU				
morning rise	-1619 Jun 27 j 20:42	5° $\text{♁}$ 29'01		conjunction	-1613 Aug 29 j 15:40	21° $\text{♁}$ 10'58	2°01'38
retrograde	-1619 Oct 09 j 03:40	13° $\text{♁}$ 33'34		minimum elong	-1613 Aug 29 j 15:38	21° $\text{♁}$ 10'57	2°01'39
opposition	-1619 Dec 14 j 15:15	10° $\text{♁}$ 06'25	0°-35'-53	max. Earth dist.	-1613 Aug 29 j 17:06	21° $\text{♁}$ 11'24	10.82366 AU
min. Earth dist.	-1619 Dec 14 j 04:23	10° $\text{♁}$ 08'39	8.11032 AU	morning rise	-1613 Sep 15 j 13:52	23° $\text{♁}$ 12'01	
direct	-1618 Feb 20 j 07:40	6° $\text{♁}$ 36'46			-1613 Dec 05 j 16:54	0° $\text{♁}$	
evening set	-1618 Jun 06 j 11:20	14° $\text{♁}$ 48'12		retrograde	-1613 Dec 23 j 14:55	0° $\text{♁}$ 16'44	
					-1612 Jan 10 j 16:12	30° $\text{♁}$	
conjunction	-1618 Jun 24 j 14:26	17° $\text{♁}$ 06'40	0°-11'-51	opposition	-1612 Mar 01 j 01:26	26° $\text{♁}$ 58'52	2°37'18
minimum elong	-1618 Jun 24 j 14:27	17° $\text{♁}$ 06'40	0°11'50	min. Earth dist.	-1612 Mar 01 j 00:49	26° $\text{♁}$ 58'59	8.88096 AU
behind sun begin	-1618 Jun 24 j 09:26	17° $\text{♁}$ 05'05		direct	-1612 May 11 j 02:14	23° $\text{♁}$ 35'17	
behind sun end	-1618 Jun 24 j 19:27	17° $\text{♁}$ 08'16			-1612 Aug 15 j 11:41	0° $\text{♁}$	
max. Earth dist.	-1618 Jun 25 j 04:07	17° $\text{♁}$ 11'03	10.16638 AU	evening set	-1612 Aug 23 j 18:38	0° $\text{♁}$ 57'06	
morning rise	-1618 Jul 12 j 14:12	19° $\text{♁}$ 24'04					
retrograde	-1618 Oct 22 j 19:45	27° $\text{♁}$ 17'11		conjunction	-1612 Sep 09 j 17:06	2° $\text{♁}$ 57'00	2°14'01
asc. node	-1618 Nov 05 j 03:57	27° $\text{♁}$ 07'14		minimum elong	-1612 Sep 09 j 17:04	2° $\text{♁}$ 56'59	2°14'02
opposition	-1618 Dec 28 j 10:17	23° $\text{♁}$ 51'46	0°05'50	max. Earth dist.	-1612 Sep 09 j 16:04	2° $\text{♁}$ 56'42	10.93163 AU
min. Earth dist.	-1618 Dec 28 j 00:06	23° $\text{♁}$ 53'51	8.22589 AU	morning rise	-1612 Sep 26 j 10:53	4° $\text{♁}$ 55'35	
direct	-1617 Mar 06 j 17:06	20° $\text{♁}$ 22'42		retrograde	-1611 Jan 03 j 09:42	11° $\text{♁}$ 54'53	
evening set	-1617 Jun 21 j 00:29	28° $\text{♁}$ 26'52		opposition	-1611 Mar 13 j 06:40	8° $\text{♁}$ 37'52	2°48'44
	-1617 Jul 03 j 09:55	0° $\text{♁}$		min. Earth dist.	-1611 Mar 13 j 09:02	8° $\text{♁}$ 37'26	8.98021 AU
				direct	-1611 May 23 j 14:09	5° $\text{♁}$ 15'29	
conjunction	-1617 Jul 09 j 00:12	0° $\text{♁}$ 42'26	0°21'27	evening set	-1611 Sep 04 j 16:23	12° $\text{♁}$ 30'26	
minimum elong	-1617 Jul 09 j 00:11	0° $\text{♁}$ 42'26	0°21'29				
max. Earth dist.	-1617 Jul 09 j 12:34	0° $\text{♁}$ 46'21	10.29065 AU	conjunction	-1611 Sep 21 j 10:44	14° $\text{♁}$ 28'14	2°20'42
morning rise	-1617 Jul 26 j 19:37	2° $\text{♁}$ 56'40		minimum elong	-1611 Sep 21 j 10:43	14° $\text{♁}$ 28'13	2°20'43
retrograde	-1617 Nov 05 j 02:59	10° $\text{♁}$ 38'12		max. Earth dist.	-1611 Sep 21 j 06:19	14° $\text{♁}$ 26'55	11.02048 AU
opposition	-1616 Jan 10 j 22:14	7° $\text{♁}$ 14'34	0°46'01	morning rise	-1611 Oct 08 j 01:10	16° $\text{♁}$ 24'54	
min. Earth dist.	-1616 Jan 10 j 13:39	7° $\text{♁}$ 16'18	8.35670 AU	retrograde	-1610 Jan 14 j 23:30	23° $\text{♁}$ 20'15	
direct	-1616 Mar 19 j 19:54	3° $\text{♁}$ 46'19		opposition	-1610 Mar 25 j 08:06	20° $\text{♁}$ 03'48	2°53'13
evening set	-1616 Jul 04 j 02:48	11° $\text{♁}$ 42'08		min. Earth dist.	-1610 Mar 25 j 12:50	20° $\text{♁}$ 02'55	9.05877 AU
				direct	-1610 Jun 04 j 19:23	16° $\text{♁}$ 42'29	
conjunction	-1616 Jul 21 j 21:53	13° $\text{♁}$ 54'25	0°52'42	evening set	-1610 Sep 16 j 06:58	23° $\text{♁}$ 51'33	
minimum elong	-1616 Jul 21 j 21:51	13° $\text{♁}$ 54'24	0°52'44				
max. Earth dist.	-1616 Jul 22 j 07:52	13° $\text{♁}$ 57'32	10.42609 AU	conjunction	-1610 Oct 02 j 22:09	25° $\text{♁}$ 47'45	2°21'44
morning rise	-1616 Aug 08 j 12:11	16° $\text{♁}$ 05'11		minimum elong	-1610 Oct 02 j 22:09	25° $\text{♁}$ 47'45	2°21'44
retrograde	-1616 Nov 16 j 23:12	23° $\text{♁}$ 35'39		max. Earth dist.	-1610 Oct 02 j 15:13	25° $\text{♁}$ 45'43	11.08754 AU
opposition	-1615 Jan 23 j 03:03	20° $\text{♁}$ 13'45	1°22'31	morning rise	-1610 Oct 19 j 10:11	27° $\text{♁}$ 43'03	
min. Earth dist.	-1615 Jan 22 j 20:26	20° $\text{♁}$ 15'03	8.49517 AU		-1610 Nov 09 j 03:35	0° $\text{♁}$	
direct	-1615 Apr 02 j 16:19	16° $\text{♁}$ 46'30		retrograde	-1609 Jan 26 j 12:25	4° $\text{♁}$ 36'04	
evening set	-1615 Jul 17 j 17:18	24° $\text{♁}$ 33'25		opposition	-1609 Apr 06 j 07:09	1° $\text{♁}$ 19'49	2°50'59
				min. Earth dist.	-1609 Apr 06 j 13:12	1° $\text{♁}$ 18'42	9.11414 AU
conjunction	-1615 Aug 04 j 07:06	26° $\text{♁}$ 42'14	1°20'28		-1609 Apr 24 j 20:28	30° $\text{♁}$	
minimum elong	-1615 Aug 04 j 07:03	26° $\text{♁}$ 42'14	1°20'29	direct	-1609 Jun 16 j 22:03	27° $\text{♁}$ 59'26	
max. Earth dist.	-1615 Aug 04 j 13:52	26° $\text{♁}$ 44'20	10.56505 AU		-1609 Aug 07 j 03:31	0° $\text{♁}$	
morning rise	-1615 Aug 21 j 15:58	28° $\text{♁}$ 49'32		evening set	-1609 Sep 27 j 15:45	5° $\text{♁}$ 03'41	
	-1615 Aug 31 j 13:55	0° $\text{♁}$					
retrograde	-1615 Nov 29 j 10:25	6° $\text{♁}$ 09'59		conjunction	-1609 Oct 14 j 04:49	6° $\text{♁}$ 58'50	2°17'20
opposition	-1614 Feb 05 j 00:41	2° $\text{♁}$ 49'37	1°53'49	minimum elong	-1609 Oct 14 j 04:51	6° $\text{♁}$ 58'50	2°17'19
min. Earth dist.	-1614 Feb 04 j 19:49	2° $\text{♁}$ 50'34	8.63346 AU	max. Earth dist.	-1609 Oct 13 j 20:56	6° $\text{♁}$ 56'32	11.13068 AU
	-1614 Mar 19 j 22:08	30° $\text{♁}$		morning rise	-1609 Oct 30 j 15:16	8° $\text{♁}$ 53'18	
direct	-1614 Apr 16 j 04:47	29° $\text{♁}$ 23'31		retrograde	-1608 Feb 07 j 02:02	15° $\text{♁}$ 45'33	
	-1614 May 13 j 07:40	0° $\text{♁}$		opposition	-1608 Apr 17 j 04:46	12° $\text{♁}$ 29'11	2°42'21
evening set	-1614 Jul 30 j 20:22	7° $\text{♁}$ 01'31		min. Earth dist.	-1608 Apr 17 j 11:55	12° $\text{♁}$ 27'53	9.14465 AU
				direct	-1608 Jun 27 j 18:29	9° $\text{♁}$ 09'36	
conjunction	-1614 Aug 17 j 04:44	9° $\text{♁}$ 07'01	1°43'40	evening set	-1608 Oct 07 j 20:42	16° $\text{♁}$ 10'10	



# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 25

Attention, astronomical year style is used: The year -1608 in astronomical counting style is the year 1609 BCE in historical counting style.

conjunction	-1608 Oct 24 j 08:30	18°♄04'50	2°07'46	conjunction	-1602 Dec 30 j 16:08	26°♄14'51	0°-10'-18
minimum elong	-1608 Oct 24 j 08:32	18°♄04'50	2°07'46	minimum elong	-1602 Dec 30 j 16:08	26°♄14'51	0°10'21
max. Earth dist.	-1608 Oct 23 j 23:18	18°♄02'09	11.14861 AU	behind sun begin	-1602 Dec 30 j 10:33	26°♄13'10	
morning rise	-1608 Nov 09 j 18:25	19°♄59'03		behind sun end	-1602 Dec 30 j 21:43	26°♄16'32	
retrograde	-1607 Feb 17 j 14:45	26°♄52'02		max. Earth dist.	-1602 Dec 30 j 05:14	26°♄11'33	10.75543 AU
opposition	-1607 Apr 29 j 01:54	23°♄35'19	2°27'43	morning rise	-1601 Jan 16 j 14:12	28°♄17'32	
min. Earth dist.	-1607 Apr 29 j 10:52	23°♄33'41	9.14954 AU		-1601 Jan 31 j 07:11	0°♄	
direct	-1607 Jul 09 j 11:01	20°♄16'16		retrograde	-1601 Apr 30 j 23:13	5°♄48'04	
evening set	-1607 Oct 18 j 23:31	27°♄14'35		opposition	-1601 Jul 10 j 15:41	2°♄24'35	0°-31'-10
				min. Earth dist.	-1601 Jul 11 j 00:07	2°♄22'59	8.69218 AU
conjunction	-1607 Nov 04 j 10:45	29°♄09'15	1°53'26		-1601 Aug 15 j 01:21	30°♄♂	
minimum elong	-1607 Nov 04 j 10:48	29°♄09'16	1°53'26	direct	-1601 Sep 17 j 11:30	29°♄04'39	
max. Earth dist.	-1607 Nov 03 j 23:33	29°♄05'59	11.14096 AU		-1601 Oct 20 j 03:14	0°♄	
	-1607 Nov 11 j 16:36	0°♄		evening set	-1601 Dec 26 j 02:12	6°♄21'10	
morning rise	-1607 Nov 20 j 21:13	1°♄03'45					
retrograde	-1606 Mar 01 j 06:20	7°♄59'06		conjunction	-1600 Jan 11 j 23:34	8°♄25'12	0°-39'-46
opposition	-1606 May 10 j 23:50	4°♄41'45	2°07'34	minimum elong	-1600 Jan 11 j 23:32	8°♄25'12	0°39'49
min. Earth dist.	-1606 May 11 j 10:13	4°♄39'51	9.12872 AU	max. Earth dist.	-1600 Jan 11 j 14:54	8°♄22'32	10.62816 AU
direct	-1606 Jul 21 j 04:01	1°♄23'03		morning rise	-1600 Jan 29 j 00:56	10°♄30'33	
evening set	-1606 Oct 30 j 01:52	8°♄20'31		retrograde	-1600 May 13 j 08:01	18°♄11'55	
				opposition	-1600 Jul 22 j 16:35	14°♄46'54	-1°-7'-12
conjunction	-1606 Nov 15 j 13:24	10°♄15'43	1°34'48	min. Earth dist.	-1600 Jul 22 j 22:52	14°♄45'41	8.56132 AU
minimum elong	-1606 Nov 15 j 13:27	10°♄15'43	1°34'47	direct	-1600 Sep 28 j 21:35	11°♄26'07	
max. Earth dist.	-1606 Nov 15 j 01:21	10°♄12'10	11.10796 AU	evening set	-1599 Jan 06 j 17:24	18°♄50'55	
morning rise	-1606 Dec 02 j 01:06	12°♄10'59					
	-1606 Dec 27 j 23:33	15°♄		conjunction	-1599 Jan 23 j 17:44	20°♄57'35	-1°-8'-9
retrograde	-1605 Mar 13 j 00:50	19°♄10'20		minimum elong	-1599 Jan 23 j 17:41	20°♄57'34	1°08'11
opposition	-1605 May 22 j 23:38	15°♄52'05	1°42'29	max. Earth dist.	-1599 Jan 23 j 11:20	20°♄55'35	10.49487 AU
min. Earth dist.	-1605 May 23 j 10:04	15°♄50'10	9.08288 AU	morning rise	-1599 Feb 09 j 22:30	23°♄05'43	
	-1605 Jun 03 j 22:24	15°♄♄			-1599 Apr 22 j 20:54	0°♄	
direct	-1605 Aug 01 j 19:59	12°♄33'35		retrograde	-1599 May 27 j 01:51	0°♄58'26	
	-1605 Sep 26 j 19:14	15°♄			-1599 Jun 30 j 16:02	30°♄♂	
evening set	-1605 Nov 10 j 05:45	19°♄31'42		opposition	-1599 Aug 05 j 00:31	27°♄31'54	-1°-41'-9
				min. Earth dist.	-1599 Aug 05 j 04:26	27°♄31'08	8.42781 AU
conjunction	-1605 Nov 26 j 18:25	21°♄27'53	1°12'23	direct	-1599 Oct 11 j 15:35	24°♄10'07	
minimum elong	-1605 Nov 26 j 18:27	21°♄27'54	1°12'21		-1598 Jan 05 j 11:13	0°♄	
max. Earth dist.	-1605 Nov 26 j 06:54	21°♄24'29	11.05064 AU	evening set	-1598 Jan 19 j 20:06	1°♄44'15	
morning rise	-1605 Dec 13 j 07:53	23°♄24'24					
	-1604 Feb 28 j 11:30	0°♄♂		conjunction	-1598 Feb 05 j 23:34	3°♄53'42	-1°-33'-55
retrograde	-1604 Mar 24 j 02:57	0°♄♂29'22		minimum elong	-1598 Feb 05 j 23:31	3°♄53'41	1°33'56
	-1604 Apr 18 j 00:36	30°♄♄		max. Earth dist.	-1598 Feb 05 j 19:03	3°♄52'16	10.36207 AU
opposition	-1604 Jun 03 j 02:24	27°♄10'01	1°13'09	morning rise	-1598 Feb 23 j 07:57	6°♄04'43	
min. Earth dist.	-1604 Jun 03 j 12:18	27°♄08'11	9.01354 AU	retrograde	-1598 Jun 10 j 05:15	14°♄08'38	
direct	-1604 Aug 12 j 13:32	23°♄51'29		opposition	-1598 Aug 18 j 15:54	10°♄40'44	-2°-10'-58
	-1604 Nov 13 j 00:46	0°♄♂		min. Earth dist.	-1598 Aug 18 j 17:46	10°♄40'22	8.29839 AU
evening set	-1604 Nov 20 j 13:04	0°♄♂51'48		direct	-1598 Oct 24 j 17:20	7°♄17'48	
				evening set	-1597 Feb 02 j 10:48	15°♄01'50	
conjunction	-1604 Dec 07 j 03:19	2°♄♂49'26	0°46'51		-1597 Feb 02 j 04:58	15°♄	
minimum elong	-1604 Dec 07 j 03:20	2°♄♂49'27	0°46'49				
max. Earth dist.	-1604 Dec 06 j 15:43	2°♄♂45'59	10.97081 AU	conjunction	-1597 Feb 19 j 17:43	17°♄14'05	-1°-55'-23
morning rise	-1604 Dec 23 j 19:13	4°♄♂47'39		minimum elong	-1597 Feb 19 j 17:40	17°♄14'04	1°55'24
retrograde	-1603 Apr 05 j 10:11	11°♄♂59'43		max. Earth dist.	-1597 Feb 19 j 15:37	17°♄13'24	10.23674 AU
opposition	-1603 Jun 15 j 09:21	8°♄♂39'08	0°40'23	morning rise	-1597 Mar 09 j 05:49	19°♄27'58	
min. Earth dist.	-1603 Jun 15 j 19:06	8°♄♂37'19	8.92295 AU	retrograde	-1597 Jun 24 j 16:45	27°♄42'11	
direct	-1603 Aug 24 j 07:00	5°♄♂20'21		opposition	-1597 Sep 01 j 14:10	24°♄13'05	-2°-34'-31
evening set	-1603 Dec 02 j 01:47	12°♄♂24'31		min. Earth dist.	-1597 Sep 01 j 14:09	24°♄13'05	8.18002 AU
				direct	-1597 Nov 07 j 03:58	20°♄48'54	
conjunction	-1603 Dec 18 j 17:55	14°♄♂23'56	0°19'00	evening set	-1596 Feb 16 j 13:40	28°♄42'51	
minimum elong	-1603 Dec 18 j 17:56	14°♄♂23'57	0°18'57		-1596 Feb 26 j 14:06	0°♄♂	
max. Earth dist.	-1603 Dec 18 j 05:53	14°♄♂20'20	10.87117 AU				
morning rise	-1602 Jan 04 j 12:47	16°♄♂24'14		conjunction	-1596 Mar 05 j 00:24	0°♄♂57'49	-2°-10'-55
retrograde	-1602 Apr 17 j 23:44	23°♄♂44'53		minimum elong	-1596 Mar 05 j 00:22	0°♄♂57'48	2°10'56
opposition	-1602 Jun 27 j 21:27	20°♄♂22'55	0°05'12	max. Earth dist.	-1596 Mar 05 j 01:16	0°♄♂58'06	10.12580 AU
min. Earth dist.	-1602 Jun 28 j 07:09	20°♄♂21'06	8.81440 AU	morning rise	-1596 Mar 22 j 16:11	3°♄♂14'23	
desc. node	-1602 Aug 21 j 06:25	17°♄♂15'06		retrograde	-1596 Jul 08 j 09:26	11°♄♂37'02	
direct	-1602 Sep 05 j 06:22	17°♄♂03'39		opposition	-1596 Sep 14 j 18:10	8°♄♂07'01	-2°-49'-46
evening set	-1602 Dec 13 j 21:37	24°♄♂13'16		min. Earth dist.	-1596 Sep 14 j 16:07	8°♄♂07'26	8.07929 AU

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 26

Attention, astronomical year style is used: The year -1596 in astronomical counting style is the year 1597 BCE in historical counting style.

direct	-1596 Nov 20 j 00:48	4° <del>✕</del> 41'33		conjunction	-1589 Jun 18 j 18:50	11° <del>Π</del> 31'00	0°-25'-55
evening set	-1595 Mar 02 j 03:32	12° <del>✕</del> 44'42		minimum elong	-1589 Jun 18 j 18:52	11° <del>Π</del> 31'00	0°25'55
				max. Earth dist.	-1589 Jun 19 j 06:45	11° <del>Π</del> 34'49	10.12102 AU
conjunction	-1595 Mar 19 j 18:23	15° <del>✕</del> 02'11	-2°-19'-6	morning rise	-1589 Jul 06 j 20:10	13° <del>Π</del> 49'34	
minimum elong	-1595 Mar 19 j 18:23	15° <del>✕</del> 02'11	2°19'06	retrograde	-1589 Oct 17 j 12:12	21° <del>Π</del> 47'30	
max. Earth dist.	-1595 Mar 19 j 22:29	15° <del>✕</del> 03'32	10.03557 AU	opposition	-1589 Dec 23 j 01:18	18° <del>Π</del> 21'22	0°-11'-37
morning rise	-1595 Apr 06 j 13:42	17° <del>✕</del> 21'06		min. Earth dist.	-1589 Dec 22 j 16:18	18° <del>Π</del> 23'12	8.17489 AU
retrograde	-1595 Jul 23 j 06:01	25° <del>✕</del> 49'37		direct	-1588 Feb 29 j 02:10	14° <del>Π</del> 51'55	
opposition	-1595 Sep 29 j 02:51	22° <del>✕</del> 18'58	-2°-55'-4	asc. node	-1588 Apr 06 j 21:10	16° <del>Π</del> 06'21	
min. Earth dist.	-1595 Sep 28 j 22:37	22° <del>✕</del> 19'50	8.00172 AU	evening set	-1588 Jun 14 j 07:58	22° <del>Π</del> 59'15	
direct	-1595 Dec 04 j 05:08	18° <del>✕</del> 52'17					
evening set	-1594 Mar 17 j 02:32	27° <del>✕</del> 03'11		conjunction	-1588 Jul 02 j 09:09	25° <del>Π</del> 16'07	0°07'39
				minimum elong	-1588 Jul 02 j 09:09	25° <del>Π</del> 16'07	0°07'40
conjunction	-1594 Apr 03 j 21:35	29° <del>✕</del> 22'51	-2°-18'-53	behind sun begin	-1588 Jul 02 j 02:33	25° <del>Π</del> 14'02	
minimum elong	-1594 Apr 03 j 21:37	29° <del>✕</del> 22'51	2°18'54	behind sun end	-1588 Jul 02 j 15:44	25° <del>Π</del> 18'11	
max. Earth dist.	-1594 Apr 04 j 04:47	29° <del>✕</del> 25'13	9.97099 AU	max. Earth dist.	-1588 Jul 02 j 20:03	25° <del>Π</del> 19'34	10.23446 AU
	-1594 Apr 08 j 14:26	0° <del>Υ</del>		morning rise	-1588 Jul 20 j 06:43	27° <del>Π</del> 31'45	
morning rise	-1594 Apr 21 j 20:14	1° <del>Υ</del> 43'40			-1588 Aug 09 j 21:29	0° <del>☾</del>	
retrograde	-1594 Aug 07 j 05:12	10° <del>Υ</del> 14'54		retrograde	-1588 Oct 29 j 22:17	5° <del>☾</del> 18'10	
opposition	-1594 Oct 13 j 14:29	6° <del>Υ</del> 44'02	-2°-49'-29	opposition	-1587 Jan 04 j 16:04	1° <del>☾</del> 53'36	0°29'26
min. Earth dist.	-1594 Oct 13 j 08:05	6° <del>Υ</del> 45'22	7.95144 AU	min. Earth dist.	-1587 Jan 04 j 07:27	1° <del>☾</del> 55'20	8.29639 AU
direct	-1594 Dec 18 j 15:17	3° <del>Υ</del> 16'17			-1587 Jan 29 j 12:46	30° <del>℞</del> <del>Π</del>	
evening set	-1593 Apr 01 j 08:39	11° <del>Υ</del> 33'03		direct	-1587 Mar 14 j 08:30	28° <del>Π</del> 24'43	
					-1587 Apr 26 j 18:44	0° <del>☾</del>	
conjunction	-1593 Apr 19 j 07:42	13° <del>Υ</del> 54'22	-2°-9'-56	evening set	-1587 Jun 28 j 14:34	6° <del>☾</del> 24'08	
minimum elong	-1593 Apr 19 j 07:45	13° <del>Υ</del> 54'23	2°09'56				
max. Earth dist.	-1593 Apr 19 j 17:17	13° <del>Υ</del> 57'32	9.93587 AU	conjunction	-1587 Jul 16 j 11:48	8° <del>☾</del> 37'53	0°39'53
morning rise	-1593 May 07 j 09:13	16° <del>Υ</del> 16'31		minimum elong	-1587 Jul 16 j 11:46	8° <del>☾</del> 37'52	0°39'54
retrograde	-1593 Aug 22 j 04:10	24° <del>Υ</del> 46'59		max. Earth dist.	-1587 Jul 16 j 21:32	8° <del>☾</del> 40'56	10.36251 AU
opposition	-1593 Oct 28 j 03:04	21° <del>Υ</del> 16'21	-2°-33'00	morning rise	-1587 Aug 03 j 04:31	10° <del>☾</del> 50'12	
min. Earth dist.	-1593 Oct 27 j 19:02	21° <del>Υ</del> 18'02	7.93210 AU	retrograde	-1587 Nov 11 j 22:26	18° <del>☾</del> 25'19	
direct	-1592 Jan 02 j 05:42	17° <del>Υ</del> 47'43		opposition	-1586 Jan 17 j 23:27	15° <del>☾</del> 02'21	1°07'41
evening set	-1592 Apr 15 j 18:52	26° <del>Υ</del> 07'55		min. Earth dist.	-1586 Jan 17 j 15:44	15° <del>☾</del> 03'53	8.42912 AU
				direct	-1586 Mar 28 j 07:47	11° <del>☾</del> 34'17	
conjunction	-1592 May 03 j 21:11	28° <del>Υ</del> 30'10	-1°-52'-39	evening set	-1586 Jul 12 j 09:50	19° <del>☾</del> 25'02	
minimum elong	-1592 May 03 j 21:15	28° <del>Υ</del> 30'12	1°52'39				
max. Earth dist.	-1592 May 04 j 08:34	28° <del>Υ</del> 33'56	9.93357 AU	conjunction	-1586 Jul 30 j 02:11	21° <del>☾</del> 35'25	1°09'14
	-1592 May 15 j 06:13	0° <del>♄</del>		minimum elong	-1586 Jul 30 j 02:09	21° <del>☾</del> 35'24	1°09'16
morning rise	-1592 May 22 j 00:43	0° <del>♄</del> 52'50		max. Earth dist.	-1586 Jul 30 j 10:26	21° <del>☾</del> 37'58	10.49783 AU
retrograde	-1592 Sep 05 j 00:16	9° <del>♄</del> 19'00		morning rise	-1586 Aug 16 j 13:26	23° <del>☾</del> 44'16	
opposition	-1592 Nov 10 j 14:52	5° <del>♄</del> 49'02	-2°-6'-40		-1586 Oct 19 j 12:49	0° <del>♁</del>	
min. Earth dist.	-1592 Nov 10 j 05:47	5° <del>♄</del> 50'56	7.94629 AU	retrograde	-1586 Nov 24 j 14:09	1° <del>♁</del> 08'57	
direct	-1591 Jan 16 j 00:10	2° <del>♄</del> 19'45			-1586 Dec 31 j 06:31	30° <del>℞</del> <del>☾</del>	
evening set	-1591 May 01 j 05:27	10° <del>♄</del> 40'32		opposition	-1585 Jan 30 j 23:48	27° <del>☾</del> 47'30	1°41'19
				min. Earth dist.	-1585 Jan 30 j 17:57	27° <del>☾</del> 48'39	8.56574 AU
conjunction	-1591 May 19 j 09:51	13° <del>♄</del> 02'48	-1°-28'-15	direct	-1585 Apr 10 j 22:20	24° <del>☾</del> 20'27	
minimum elong	-1591 May 19 j 09:55	13° <del>♄</del> 02'49	1°28'15		-1585 Jul 08 j 03:18	0° <del>♁</del>	
max. Earth dist.	-1591 May 19 j 22:26	13° <del>♄</del> 06'56	9.96527 AU	evening set	-1585 Jul 25 j 17:34	2° <del>♁</del> 02'19	
	-1591 Jun 03 j 08:33	15° <del>♄</del>					
morning rise	-1591 Jun 06 j 14:09	15° <del>♄</del> 25'01		conjunction	-1585 Aug 12 j 04:27	4° <del>♁</del> 09'19	1°34'27
retrograde	-1591 Sep 19 j 13:11	23° <del>♄</del> 43'48		minimum elong	-1585 Aug 12 j 04:24	4° <del>♁</del> 09'18	1°34'28
opposition	-1591 Nov 24 j 23:40	20° <del>♄</del> 14'51	-1°-32'-31	max. Earth dist.	-1585 Aug 12 j 10:25	4° <del>♁</del> 11'08	10.63334 AU
min. Earth dist.	-1591 Nov 24 j 14:10	20° <del>♄</del> 16'49	7.99387 AU	morning rise	-1585 Aug 29 j 10:05	6° <del>♁</del> 14'45	
direct	-1590 Jan 30 j 19:49	16° <del>♄</del> 45'12		retrograde	-1585 Dec 06 j 22:34	13° <del>♁</del> 30'10	
evening set	-1590 May 16 j 13:12	25° <del>♄</del> 03'46		opposition	-1584 Feb 12 j 17:28	10° <del>♁</del> 10'09	2°09'07
				min. Earth dist.	-1584 Feb 12 j 14:04	10° <del>♁</del> 10'48	8.69954 AU
conjunction	-1590 Jun 03 j 18:11	27° <del>♄</del> 25'05	0°-58'-36	direct	-1584 Apr 23 j 03:46	6° <del>♁</del> 44'16	
minimum elong	-1590 Jun 03 j 18:14	27° <del>♄</del> 25'06	0°58'37	evening set	-1584 Aug 06 j 14:03	14° <del>♁</del> 17'26	
max. Earth dist.	-1590 Jun 04 j 06:55	27° <del>♄</del> 29'14	10.02922 AU		-1584 Aug 12 j 13:17	15° <del>♁</del>	
morning rise	-1590 Jun 21 j 21:48	29° <del>♄</del> 45'55					
	-1590 Jun 23 j 18:06	0° <del>♁</del>		conjunction	-1584 Aug 23 j 19:25	16° <del>♁</del> 21'15	1°54'41
retrograde	-1590 Oct 03 j 17:13	7° <del>♁</del> 54'57		minimum elong	-1584 Aug 23 j 19:22	16° <del>♁</del> 21'14	1°54'43
opposition	-1590 Dec 09 j 03:31	4° <del>♁</del> 27'19	0°-53'-11	max. Earth dist.	-1584 Aug 23 j 22:07	16° <del>♁</del> 22'04	10.76287 AU
min. Earth dist.	-1590 Dec 08 j 18:16	4° <del>♁</del> 29'14	8.07183 AU	morning rise	-1584 Sep 09 j 19:50	18° <del>♁</del> 23'34	
direct	-1589 Feb 14 j 13:16	0° <del>♁</del> 57'36		retrograde	-1584 Dec 17 j 21:39	25° <del>♁</del> 31'07	
evening set	-1589 May 31 j 14:56	9° <del>♁</del> 11'32		opposition	-1583 Feb 24 j 05:04	22° <del>♁</del> 12'19	2°30'23
				min. Earth dist.	-1583 Feb 24 j 03:42	22° <del>♁</del> 12'35	8.82460 AU

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 27

Attention, astronomical year style is used: The year -1583 in astronomical counting style is the year 1584 BCE in historical counting style.

direct	-1583 May 06 j 02:17	18° $\mathcal{Q}$ 47'42			-1577 Sep 19 j 23:28	0° $\mathcal{M}$	
evening set	-1583 Aug 18 j 23:53	26° $\mathcal{Q}$ 12'41		evening set	-1577 Oct 25 j 14:43	3° $\mathcal{M}$ 43'33	
conjunction	-1583 Sep 05 j 00:15	28° $\mathcal{Q}$ 13'39	2°09'27	conjunction	-1577 Nov 11 j 02:04	5° $\mathcal{M}$ 38'12	1°43'21
minimum elong	-1583 Sep 05 j 00:13	28° $\mathcal{Q}$ 13'38	2°09'29	minimum elong	-1577 Nov 11 j 02:06	5° $\mathcal{M}$ 38'13	1°43'20
max. Earth dist.	-1583 Sep 05 j 00:08	28° $\mathcal{Q}$ 13'37	10.88099 AU	max. Earth dist.	-1577 Nov 10 j 16:09	5° $\mathcal{M}$ 35'18	11.14968 AU
	-1583 Sep 19 j 22:44	0° $\mathcal{M}$		morning rise	-1577 Nov 27 j 12:52	7° $\mathcal{M}$ 32'48	
morning rise	-1583 Sep 21 j 20:04	0° $\mathcal{M}$ 13'16		retrograde	-1576 Mar 07 j 06:18	14° $\mathcal{M}$ 29'12	
retrograde	-1583 Dec 29 j 17:20	7° $\mathcal{M}$ 14'30		opposition	-1576 May 17 j 02:19	11° $\mathcal{M}$ 11'58	1°53'52
opposition	-1582 Mar 08 j 11:26	3° $\mathcal{M}$ 56'44	2°44'44	min. Earth dist.	-1576 May 17 j 11:38	11° $\mathcal{M}$ 10'15	9.13194 AU
min. Earth dist.	-1582 Mar 08 j 11:29	3° $\mathcal{M}$ 56'43	8.93560 AU	direct	-1576 Jul 27 j 01:41	7° $\mathcal{M}$ 54'02	
direct	-1582 May 18 j 18:12	0° $\mathcal{M}$ 33'25		evening set	-1576 Nov 04 j 17:25	14° $\mathcal{M}$ 50'40	
evening set	-1582 Aug 31 j 00:34	7° $\mathcal{M}$ 50'57			-1576 Nov 06 j 01:53	15° $\mathcal{M}$	
conjunction	-1582 Sep 16 j 20:39	9° $\mathcal{M}$ 49'33	2°18'33	conjunction	-1576 Nov 21 j 05:20	16° $\mathcal{M}$ 46'04	1°22'33
minimum elong	-1582 Sep 16 j 20:38	9° $\mathcal{M}$ 49'33	2°18'34	minimum elong	-1576 Nov 21 j 05:23	16° $\mathcal{M}$ 46'04	1°22'32
max. Earth dist.	-1582 Sep 16 j 18:51	9° $\mathcal{M}$ 49'01	10.98290 AU	max. Earth dist.	-1576 Nov 20 j 17:33	16° $\mathcal{M}$ 42'36	11.10608 AU
morning rise	-1582 Oct 03 j 12:29	11° $\mathcal{M}$ 46'56		morning rise	-1576 Dec 07 j 17:51	18° $\mathcal{M}$ 41'41	
retrograde	-1581 Jan 10 j 09:47	18° $\mathcal{M}$ 43'23		retrograde	-1575 Mar 19 j 03:35	25° $\mathcal{M}$ 42'48	
opposition	-1581 Mar 20 j 13:41	15° $\mathcal{M}$ 26'25	2°52'08	opposition	-1575 May 29 j 03:00	22° $\mathcal{M}$ 24'40	1°26'23
min. Earth dist.	-1581 Mar 20 j 15:28	15° $\mathcal{M}$ 26'05	9.02826 AU	min. Earth dist.	-1575 May 29 j 13:44	22° $\mathcal{M}$ 22'42	9.07515 AU
direct	-1581 May 31 j 01:06	12° $\mathcal{M}$ 04'25		direct	-1575 Aug 07 j 17:54	19° $\mathcal{M}$ 06'48	
evening set	-1581 Sep 11 j 17:24	19° $\mathcal{M}$ 15'25		evening set	-1575 Nov 15 j 22:35	26° $\mathcal{M}$ 04'55	
conjunction	-1581 Sep 28 j 09:59	21° $\mathcal{M}$ 12'09	2°21'58	conjunction	-1575 Dec 02 j 11:48	28° $\mathcal{M}$ 01'31	0°58'22
minimum elong	-1581 Sep 28 j 09:59	21° $\mathcal{M}$ 12'09	2°21'58	minimum elong	-1575 Dec 02 j 11:50	28° $\mathcal{M}$ 01'32	0°58'21
max. Earth dist.	-1581 Sep 28 j 06:24	21° $\mathcal{M}$ 11'06	11.06486 AU	max. Earth dist.	-1575 Dec 01 j 23:19	27° $\mathcal{M}$ 57'49	11.03739 AU
morning rise	-1581 Oct 14 j 22:47	23° $\mathcal{M}$ 07'52		morning rise	-1575 Dec 19 j 02:32	29° $\mathcal{M}$ 58'37	
	-1580 Jan 17 j 04:55	0° $\mathcal{A}$			-1575 Dec 19 j 07:19	0° $\mathcal{A}$	
retrograde	-1580 Jan 21 j 22:42	0° $\mathcal{A}$ 01'08		retrograde	-1574 Mar 31 j 06:37	7° $\mathcal{A}$ 06'07	
	-1580 Jan 26 j 16:52	30° $\mathcal{R}$ $\mathcal{M}$		opposition	-1574 Jun 10 j 07:21	3° $\mathcal{A}$ 46'48	0°55'07
opposition	-1580 Mar 31 j 13:07	26° $\mathcal{M}$ 44'42	2°52'43	min. Earth dist.	-1574 Jun 10 j 18:15	3° $\mathcal{A}$ 44'47	8.99391 AU
min. Earth dist.	-1580 Mar 31 j 17:17	26° $\mathcal{M}$ 43'56	9.09936 AU	direct	-1574 Aug 19 j 11:27	0° $\mathcal{A}$ 28'47	
direct	-1580 Jun 11 j 02:41	23° $\mathcal{M}$ 23'53		evening set	-1574 Nov 27 j 07:59	7° $\mathcal{A}$ 29'58	
	-1580 Sep 17 j 20:12	0° $\mathcal{A}$					
evening set	-1580 Sep 22 j 03:53	0° $\mathcal{A}$ 29'26		conjunction	-1574 Dec 13 j 23:07	9° $\mathcal{A}$ 28'14	0°31'31
conjunction	-1580 Oct 08 j 17:44	2° $\mathcal{A}$ 24'51	2°19'51	minimum elong	-1574 Dec 13 j 23:08	9° $\mathcal{A}$ 28'14	0°31'29
minimum elong	-1580 Oct 08 j 17:45	2° $\mathcal{A}$ 24'51	2°19'51	max. Earth dist.	-1574 Dec 13 j 11:08	9° $\mathcal{A}$ 24'39	10.94516 AU
max. Earth dist.	-1580 Oct 08 j 11:30	2° $\mathcal{A}$ 23'01	11.12412 AU	morning rise	-1574 Dec 30 j 16:24	11° $\mathcal{A}$ 27'13	
morning rise	-1580 Oct 25 j 04:44	4° $\mathcal{A}$ 19'28		retrograde	-1573 Apr 12 j 17:32	18° $\mathcal{A}$ 42'46	
retrograde	-1579 Feb 01 j 10:23	11° $\mathcal{A}$ 11'08		opposition	-1573 Jun 22 j 16:27	15° $\mathcal{A}$ 22'03	0°21'00
opposition	-1579 Apr 12 j 10:35	7° $\mathcal{A}$ 54'57	2°46'45	min. Earth dist.	-1573 Jun 23 j 02:33	15° $\mathcal{A}$ 20'10	8.89069 AU
min. Earth dist.	-1579 Apr 12 j 17:00	7° $\mathcal{A}$ 53'46	9.14648 AU	direct	-1573 Aug 31 j 08:51	12° $\mathcal{A}$ 03'37	
direct	-1579 Jun 23 j 00:22	4° $\mathcal{A}$ 35'09		evening set	-1573 Dec 08 j 23:53	19° $\mathcal{A}$ 09'36	
evening set	-1579 Oct 03 j 09:51	11° $\mathcal{A}$ 36'28					
conjunction	-1579 Oct 19 j 21:56	13° $\mathcal{A}$ 31'06	2°12'28	conjunction	-1573 Dec 25 j 17:16	21° $\mathcal{A}$ 09'54	0°02'53
minimum elong	-1579 Oct 19 j 21:58	13° $\mathcal{A}$ 31'06	2°12'27	minimum elong	-1573 Dec 25 j 17:17	21° $\mathcal{A}$ 09'54	0°02'52
max. Earth dist.	-1579 Oct 19 j 13:30	13° $\mathcal{A}$ 28'38	11.15868 AU	behind sun begin	-1573 Dec 25 j 10:17	21° $\mathcal{A}$ 07'49	
morning rise	-1579 Nov 05 j 08:04	15° $\mathcal{A}$ 25'11		behind sun end	-1573 Dec 26 j 00:16	21° $\mathcal{A}$ 12'00	
retrograde	-1578 Feb 12 j 21:45	22° $\mathcal{A}$ 16'50		max. Earth dist.	-1573 Dec 25 j 05:36	21° $\mathcal{A}$ 06'24	10.83281 AU
opposition	-1578 Apr 24 j 06:58	19° $\mathcal{A}$ 00'35	2°34'38	morning rise	-1572 Jan 11 j 13:35	23° $\mathcal{A}$ 11'11	
min. Earth dist.	-1578 Apr 24 j 14:26	18° $\mathcal{A}$ 59'13	9.16797 AU	desc. node	-1572 Jan 31 j 00:37	25° $\mathcal{A}$ 24'13	
direct	-1578 Jul 04 j 19:03	15° $\mathcal{A}$ 41'37			-1572 Mar 28 j 07:45	0° $\mathcal{B}$	
evening set	-1578 Oct 14 j 12:52	22° $\mathcal{A}$ 40'01		retrograde	-1572 Apr 24 j 13:34	0° $\mathcal{B}$ 36'08	
conjunction	-1578 Oct 31 j 00:14	24° $\mathcal{A}$ 34'23	2°00'10		-1572 May 22 j 00:57	30° $\mathcal{R}$ $\mathcal{A}$	
minimum elong	-1578 Oct 31 j 00:16	24° $\mathcal{A}$ 34'24	2°00'09	opposition	-1572 Jul 04 j 07:10	27° $\mathcal{A}$ 13'53	0°-14'-52
max. Earth dist.	-1578 Oct 30 j 15:12	24° $\mathcal{A}$ 31'45	11.16733 AU	min. Earth dist.	-1572 Jul 04 j 16:29	27° $\mathcal{A}$ 12'07	8.76989 AU
morning rise	-1578 Nov 16 j 10:15	26° $\mathcal{A}$ 28'28		direct	-1572 Sep 11 j 09:16	23° $\mathcal{A}$ 54'45	
	-1578 Dec 19 j 22:06	0° $\mathcal{M}$			-1572 Dec 10 j 11:51	0° $\mathcal{B}$	
retrograde	-1577 Feb 24 j 13:36	3° $\mathcal{M}$ 21'42		evening set	-1572 Dec 19 j 23:57	1° $\mathcal{B}$ 07'07	
opposition	-1577 May 06 j 03:55	0° $\mathcal{M}$ 05'06	2°16'50	conjunction	-1571 Jan 05 j 19:49	3° $\mathcal{B}$ 09'46	0°-26'-38
min. Earth dist.	-1577 May 06 j 12:02	0° $\mathcal{M}$ 03'37	9.16310 AU	minimum elong	-1571 Jan 05 j 19:48	3° $\mathcal{B}$ 09'46	0°26'40
	-1577 May 07 j 07:49	30° $\mathcal{R}$ $\mathcal{A}$		max. Earth dist.	-1571 Jan 05 j 08:15	3° $\mathcal{B}$ 06'15	10.70534 AU
direct	-1577 Jul 16 j 11:54	26° $\mathcal{A}$ 46'48		morning rise	-1571 Jan 22 j 19:32	5° $\mathcal{B}$ 13'39	
				retrograde	-1571 May 07 j 16:56	12° $\mathcal{B}$ 49'08	
				opposition	-1571 Jul 17 j 04:28	9° $\mathcal{B}$ 25'13	0°-51'-10

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 28

Attention, astronomical year style is used: The year -1571 in astronomical counting style is the year 1572 BCE in historical counting style.

min. Earth dist.	-1571 Jul 17 j 13:07	9°♄23'34	8.63693 AU	opposition	-1565 Oct 07 j 09:43	0°♄24'10	-2°-53'-34
direct	-1571 Sep 23 j 15:16	6°♄05'07		min. Earth dist.	-1565 Oct 07 j 04:51	0°♄25'11	7.95259 AU
evening set	-1570 Jan 01 j 09:34	13°♄25'21			-1565 Oct 12 j 06:21	30°♄	
				direct	-1565 Dec 12 j 09:54	26°♄56'16	
conjunction	-1570 Jan 18 j 08:14	15°♄30'35	0°-55'-37		-1564 Feb 09 j 02:04	0°♄	
minimum elong	-1570 Jan 18 j 08:12	15°♄30'35	0°55'39	evening set	-1564 Mar 24 j 18:56	5°♄11'26	
max. Earth dist.	-1570 Jan 17 j 22:06	15°♄27'27	10.56845 AU				
morning rise	-1570 Feb 04 j 11:27	17°♄37'15		conjunction	-1564 Apr 11 j 16:07	7°♄32'18	-2°-15'-9
retrograde	-1570 May 21 j 04:30	25°♄24'04		minimum elong	-1564 Apr 11 j 16:09	7°♄32'19	2°15'09
opposition	-1570 Jul 30 j 08:48	21°♄58'26	-1°-26'-12	max. Earth dist.	-1564 Apr 11 j 23:24	7°♄34'43	9.92930 AU
min. Earth dist.	-1570 Jul 30 j 16:00	21°♄57'02	8.49795 AU	morning rise	-1564 Apr 29 j 16:37	9°♄54'13	
direct	-1570 Oct 06 j 06:59	18°♄37'10		retrograde	-1564 Aug 14 j 19:27	18°♄26'18	
evening set	-1569 Jan 14 j 06:13	26°♄06'26		opposition	-1564 Oct 20 j 22:27	14°♄54'54	-2°-41'-58
				min. Earth dist.	-1564 Oct 20 j 15:49	14°♄56'17	7.91830 AU
conjunction	-1569 Jan 31 j 08:06	28°♄14'28	-1°-22'-42	direct	-1564 Dec 25 j 23:45	11°♄25'59	
minimum elong	-1569 Jan 31 j 08:04	28°♄14'27	1°22'44	evening set	-1563 Apr 09 j 03:48	19°♄45'43	
max. Earth dist.	-1569 Jan 31 j 00:50	28°♄12'11	10.42856 AU				
	-1569 Feb 14 j 08:59	0°♄		conjunction	-1563 Apr 27 j 04:40	22°♄07'52	-2°-1'-33
morning rise	-1569 Feb 17 j 14:48	0°♄24'03		minimum elong	-1563 Apr 27 j 04:44	22°♄07'53	2°01'33
retrograde	-1569 Jun 04 j 02:55	8°♄22'26		max. Earth dist.	-1563 Apr 27 j 14:43	22°♄11'11	9.91246 AU
opposition	-1569 Aug 12 j 20:18	4°♄55'07	-1°-58'-6	morning rise	-1563 May 15 j 07:40	24°♄30'40	
min. Earth dist.	-1569 Aug 13 j 01:08	4°♄54'10	8.35967 AU		-1563 Jul 01 j 22:06	0°♄	
direct	-1569 Oct 19 j 05:10	1°♄32'33		retrograde	-1563 Aug 29 j 16:31	2°♄59'58	
evening set	-1568 Jan 27 j 14:48	9°♄11'42			-1563 Oct 29 j 06:35	30°♄	
				opposition	-1563 Nov 04 j 11:14	29°♄29'02	-2°-19'-54
conjunction	-1568 Feb 13 j 20:12	11°♄22'37	-1°-46'-17	min. Earth dist.	-1563 Nov 04 j 02:42	29°♄30'49	7.91867 AU
minimum elong	-1568 Feb 13 j 20:09	11°♄22'36	1°46'19	direct	-1562 Jan 09 j 18:11	25°♄59'25	
max. Earth dist.	-1568 Feb 13 j 16:09	11°♄21'19	10.29260 AU		-1562 Mar 19 j 04:27	0°♄	
morning rise	-1568 Mar 02 j 06:27	13°♄35'09		evening set	-1562 Apr 24 j 14:40	4°♄20'54	
	-1568 Mar 13 j 19:07	15°♄					
retrograde	-1568 Jun 17 j 10:28	21°♄44'37		conjunction	-1562 May 12 j 18:22	6°♄43'29	-1°-40'-11
opposition	-1568 Aug 25 j 14:56	18°♄15'46	-2°-24'-45	minimum elong	-1562 May 12 j 18:26	6°♄43'30	1°40'11
min. Earth dist.	-1568 Aug 25 j 16:48	18°♄15'23	8.22901 AU	max. Earth dist.	-1562 May 13 j 06:41	6°♄47'32	9.93092 AU
	-1568 Oct 19 j 08:21	15°♄		morning rise	-1562 May 30 j 22:45	9°♄06'15	
direct	-1568 Oct 31 j 11:06	14°♄51'50			-1562 Jul 22 j 07:46	15°♄	
	-1568 Nov 12 j 12:49	15°♄		retrograde	-1562 Sep 13 j 08:14	17°♄29'23	
evening set	-1567 Feb 09 j 11:42	22°♄41'13			-1562 Nov 06 j 15:06	15°♄	
				opposition	-1562 Nov 18 j 21:50	13°♄59'23	-1°-48'-56
conjunction	-1567 Feb 26 j 20:45	24°♄54'59	-2°-4'-43	min. Earth dist.	-1562 Nov 18 j 11:47	14°♄01'29	7.95381 AU
minimum elong	-1567 Feb 26 j 20:42	24°♄54'59	2°04'44	direct	-1561 Jan 24 j 13:57	10°♄29'23	
max. Earth dist.	-1567 Feb 26 j 19:37	24°♄54'38	10.16778 AU		-1561 Apr 08 j 03:39	15°♄	
morning rise	-1567 Mar 16 j 10:38	27°♄10'23		evening set	-1561 May 10 j 00:26	18°♄49'48	
	-1567 Apr 08 j 18:11	0°♄					
retrograde	-1567 Jul 02 j 01:02	5°♄29'35		conjunction	-1561 May 28 j 05:33	21°♄11'52	-1°-12'-37
opposition	-1567 Sep 08 j 16:07	1°♄59'29	-2°-44'-3	minimum elong	-1561 May 28 j 05:37	21°♄11'53	1°12'37
min. Earth dist.	-1567 Sep 08 j 15:20	1°♄59'39	8.11314 AU	max. Earth dist.	-1561 May 28 j 19:18	21°♄16'21	9.98340 AU
	-1567 Oct 04 j 20:36	30°♄		morning rise	-1561 Jun 15 j 09:49	23°♄33'37	
direct	-1567 Nov 14 j 02:31	28°♄34'10			-1561 Aug 14 j 02:42	0°♄	
	-1567 Dec 23 j 12:43	0°♄		retrograde	-1561 Sep 27 j 16:54	1°♄47'54	
evening set	-1566 Feb 23 j 20:21	6°♄33'29			-1561 Nov 12 j 00:42	30°♄	
				opposition	-1561 Dec 03 j 04:18	28°♄19'12	-1°-11'-32
conjunction	-1566 Mar 13 j 09:18	8°♄49'58	-2°-16'-24	min. Earth dist.	-1561 Dec 02 j 17:23	28°♄21'28	8.02140 AU
minimum elong	-1566 Mar 13 j 09:17	8°♄49'58	2°16'26	direct	-1560 Feb 08 j 07:49	24°♄49'11	
max. Earth dist.	-1566 Mar 13 j 11:03	8°♄50'33	10.06143 AU		-1560 Apr 28 j 14:50	0°♄	
morning rise	-1566 Mar 31 j 02:55	11°♄07'59		evening set	-1560 May 24 j 05:37	3°♄05'57	
retrograde	-1566 Jul 16 j 20:49	19°♄34'43					
opposition	-1566 Sep 22 j 22:55	16°♄03'44	-2°-54'-6	conjunction	-1560 Jun 11 j 10:28	5°♄26'32	0°-40'-58
min. Earth dist.	-1566 Sep 22 j 19:51	16°♄04'22	8.01904 AU	minimum elong	-1560 Jun 11 j 10:30	5°♄26'32	0°40'58
direct	-1566 Nov 28 j 02:19	12°♄37'04		max. Earth dist.	-1560 Jun 12 j 00:49	5°♄31'11	10.06632 AU
evening set	-1565 Mar 10 j 15:25	20°♄45'12		morning rise	-1560 Jun 29 j 13:01	7°♄46'22	
				retrograde	-1560 Oct 10 j 18:01	15°♄50'01	
conjunction	-1565 Mar 28 j 08:31	23°♄04'08	-2°-20'-7	opposition	-1560 Dec 16 j 05:25	12°♄22'56	0°-30'-32
minimum elong	-1565 Mar 28 j 08:31	23°♄04'08	2°20'08	min. Earth dist.	-1560 Dec 15 j 18:37	12°♄25'09	8.11705 AU
max. Earth dist.	-1565 Mar 28 j 13:01	23°♄05'37	9.98017 AU	direct	-1559 Feb 21 j 22:09	8°♄53'13	
morning rise	-1565 Apr 15 j 05:48	25°♄24'24		evening set	-1559 Jun 08 j 03:13	17°♄04'09	
	-1565 May 24 j 00:45	0°♄					
retrograde	-1565 Jul 31 j 20:01	3°♄55'36		conjunction	-1559 Jun 26 j 06:02	19°♄22'25	0°-7'-32

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 29

Attention, astronomical year style is used: The year -1559 in astronomical counting style is the year 1560 BCE in historical counting style.

minimum elong	-1559 Jun 26 j 06:02	19°II22'25	0°07'32			-1553 Jul 29 j 15:14	0°00'	
behind sun begin	-1559 Jun 25 j 23:24	19°II20'19		evening set		-1553 Aug 26 j 04:39	3°00'11"4	
behind sun end	-1559 Jun 26 j 12:40	19°II24'31						
max. Earth dist.	-1559 Jun 26 j 19:50	19°II26'50	10.17421 AU	conjunction		-1553 Sep 12 j 02:33	5°00'05"1	2°15'08
morning rise	-1559 Jul 14 j 05:25	21°II39'35		minimum elong		-1553 Sep 12 j 02:31	5°00'05"0	2°15'10
asc. node	-1559 Sep 19 j 01:50	28°II23'40		max. Earth dist.		-1553 Sep 12 j 01:01	5°00'02"4	10.94561 AU
retrograde	-1559 Oct 24 j 09:52	29°II31'45		morning rise		-1553 Sep 28 j 20:00	6°00'59"10	
opposition	-1559 Dec 29 j 23:58	26°II06'25	0°11'09	retrograde		-1552 Jan 05 j 17:46	13°00'57"44	
min. Earth dist.	-1559 Dec 29 j 14:16	26°II08'23	8.23468 AU	opposition		-1552 Mar 14 j 16:42	10°00'40"52	2°49'35
direct	-1558 Mar 08 j 07:23	22°II37'19		min. Earth dist.		-1552 Mar 14 j 19:17	10°00'40"23	8.99400 AU
	-1558 Jun 17 j 02:13	0°00'		direct		-1552 May 25 j 00:19	7°00'18"40	
evening set	-1558 Jun 22 j 15:29	0°00'40"52		evening set		-1552 Sep 06 j 01:23	14°00'32"44	
conjunction	-1558 Jul 10 j 14:43	2°00'56"11	0°25'38	conjunction		-1552 Sep 22 j 19:18	16°00'30"16	2°21'03
minimum elong	-1558 Jul 10 j 14:42	2°00'56"10	0°25'39	minimum elong		-1552 Sep 22 j 19:17	16°00'30"15	2°21'03
max. Earth dist.	-1558 Jul 11 j 02:36	2°00'59"55	10.30028 AU	max. Earth dist.		-1552 Sep 22 j 14:35	16°00'28"52	11.03379 AU
morning rise	-1558 Jul 28 j 09:46	5°00'10"08		morning rise		-1552 Oct 09 j 09:30	18°00'26"43	
retrograde	-1558 Nov 06 j 14:42	12°00'50"43		retrograde		-1551 Jan 16 j 07:25	25°00'21"30	
opposition	-1557 Jan 12 j 11:16	9°00'27"13	0°50'59	opposition		-1551 Mar 26 j 17:35	22°00'05"09	2°53'08
min. Earth dist.	-1557 Jan 12 j 03:01	9°00'28"52	8.36710 AU	min. Earth dist.		-1551 Mar 26 j 21:49	22°00'04"22	9.07149 AU
direct	-1557 Mar 22 j 11:08	5°00'58"59		direct		-1551 Jun 06 j 06:39	18°00'44"02	
evening set	-1557 Jul 06 j 16:50	13°00'54"08		evening set		-1551 Sep 17 j 14:58	25°00'52"17	
conjunction	-1557 Jul 24 j 11:22	16°00'06"06	0°56'31	conjunction		-1551 Oct 04 j 05:59	27°00'48"17	2°21'20
minimum elong	-1557 Jul 24 j 11:20	16°00'06"05	0°56'32	minimum elong		-1551 Oct 04 j 05:59	27°00'48"17	2°21'20
max. Earth dist.	-1557 Jul 24 j 20:43	16°00'09"00	10.43707 AU	max. Earth dist.		-1551 Oct 03 j 23:40	27°00'46"26	11.09950 AU
morning rise	-1557 Aug 11 j 01:16	18°00'16"35		morning rise		-1551 Oct 20 j 17:46	29°00'43"23	
retrograde	-1557 Nov 19 j 09:56	25°00'46"11				-1551 Oct 23 j 03:57	0°00'	
opposition	-1556 Jan 25 j 15:25	22°00'24"24	1°26'54	retrograde		-1550 Jan 27 j 21:33	6°00'35"56	
min. Earth dist.	-1556 Jan 25 j 08:32	22°00'25"46	8.50671 AU	opposition		-1550 Apr 07 j 16:06	3°00'19"49	2°50'01
direct	-1556 Apr 04 j 06:55	18°00'57"15		min. Earth dist.		-1550 Apr 07 j 21:46	3°00'18"46	9.12520 AU
evening set	-1556 Jul 19 j 06:21	26°00'43"26				-1550 Jun 15 j 13:19	30°00'00"00	
conjunction	-1556 Aug 05 j 19:36	28°00'51"57	1°23'45	direct		-1550 Jun 18 j 06:42	29°00'59"39	
minimum elong	-1556 Aug 05 j 19:33	28°00'51"56	1°23'46	evening set		-1550 Jun 20 j 23:59	0°00'	
max. Earth dist.	-1556 Aug 06 j 02:30	28°00'54"04	10.57704 AU			-1550 Sep 28 j 23:09	7°00'03"07	
	-1556 Aug 15 j 01:32	0°00'		conjunction		-1550 Oct 15 j 12:06	8°00'58"08	2°16'13
morning rise	-1556 Aug 23 j 03:56	0°00'58"55		minimum elong		-1550 Oct 15 j 12:07	8°00'58"09	2°16'12
retrograde	-1556 Nov 30 j 21:54	8°00'18"36		max. Earth dist.		-1550 Oct 15 j 04:23	8°00'55"53	11.14076 AU
opposition	-1555 Feb 06 j 12:30	4°00'58"21	1°57'27	morning rise		-1550 Oct 31 j 22:24	10°00'52"29	
min. Earth dist.	-1555 Feb 06 j 06:52	4°00'59"27	8.64594 AU	retrograde		-1549 Feb 08 j 09:06	17°00'44"21	
direct	-1555 Apr 17 j 17:26	1°00'32"25		opposition		-1549 Apr 19 j 13:19	14°00'28"07	2°40'34
evening set	-1555 Aug 01 j 08:20	9°00'09"36		min. Earth dist.		-1549 Apr 19 j 20:59	14°00'26"42	9.15366 AU
conjunction	-1555 Aug 18 j 16:14	11°00'14"48	1°46'18	direct		-1549 Jun 30 j 01:57	11°00'08"42	
minimum elong	-1555 Aug 18 j 16:11	11°00'14"47	1°46'18	evening set		-1549 Oct 10 j 03:35	18°00'08"39	
max. Earth dist.	-1555 Aug 18 j 21:06	11°00'16"17	10.71282 AU	conjunction		-1549 Oct 26 j 15:13	20°00'03"12	2°06'01
morning rise	-1555 Sep 04 j 18:59	13°00'18"28		minimum elong		-1549 Oct 26 j 15:15	20°00'03"13	2°06'00
	-1555 Sep 19 j 10:11	15°00'		max. Earth dist.		-1549 Oct 26 j 05:10	20°00'00"16	11.15654 AU
retrograde	-1555 Dec 13 j 02:07	20°00'29"30		morning rise		-1549 Nov 12 j 01:14	21°00'57"20	
opposition	-1554 Feb 19 j 02:59	17°00'10"38	2°21'41	retrograde		-1548 Feb 19 j 22:34	28°00'50"06	
min. Earth dist.	-1554 Feb 18 j 23:43	17°00'11"15	8.77753 AU	opposition		-1548 Apr 30 j 10:16	25°00'33"28	2°25'11
	-1554 Mar 22 j 00:07	15°00'00"00		min. Earth dist.		-1548 Apr 30 j 19:49	25°00'31"43	9.15627 AU
direct	-1554 Apr 30 j 19:14	13°00'45"56		direct		-1548 Jul 10 j 19:52	22°00'14"33	
	-1554 Jun 09 j 03:24	15°00'		evening set		-1548 Oct 20 j 05:53	29°00'12"20	
evening set	-1554 Aug 13 j 23:26	21°00'14"36				-1548 Oct 27 j 03:25	0°00'	
conjunction	-1554 Aug 31 j 02:09	23°00'16"47	2°03'32	conjunction		-1548 Nov 05 j 17:08	1°00'06"57	1°51'07
minimum elong	-1554 Aug 31 j 02:06	23°00'16"46	2°03'33	minimum elong		-1548 Nov 05 j 17:10	1°00'06"58	1°51'06
max. Earth dist.	-1554 Aug 31 j 04:11	23°00'17"24	10.83749 AU	max. Earth dist.		-1548 Nov 05 j 05:38	1°00'03"36	11.14653 AU
morning rise	-1554 Sep 16 j 23:49	25°00'17"31		morning rise		-1548 Nov 22 j 03:45	3°00'01"26	
	-1554 Nov 01 j 12:13	0°00'		retrograde		-1547 Mar 02 j 12:46	9°00'56"41	
retrograde	-1554 Dec 25 j 00:59	2°00'21"29		opposition		-1547 May 12 j 07:54	6°00'39"20	2°04'24
	-1553 Feb 18 j 22:49	30°00'00"00		min. Earth dist.		-1547 May 12 j 18:07	6°00'37"28	9.13295 AU
opposition	-1553 Mar 03 j 12:06	29°00'03"46	2°39'07	direct		-1547 Jul 22 j 11:26	3°00'20"45	
min. Earth dist.	-1553 Mar 03 j 11:55	29°00'03"48	8.89504 AU	evening set		-1547 Oct 31 j 07:59	10°00'17"49	
direct	-1553 May 13 j 13:23	25°00'40"20						

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 30

Attention, astronomical year style is used: The year -1547 in astronomical counting style is the year 1548 BCE in historical counting style.

conjunction	-1547 Nov 16 j 19:44	12°♄13'00	1°31'59	opposition	-1541 Jul 25 j 01:12	16°♄46'52	-1°-11'-23
minimum elong	-1547 Nov 16 j 19:46	12°♄13'00	1°31'58	min. Earth dist.	-1541 Jul 25 j 07:17	16°♄45'41	8.55129 AU
max. Earth dist.	-1547 Nov 16 j 08:13	12°♄09'37	11.11092 AU	direct	-1541 Oct 01 j 05:30	13°♄25'56	
morning rise	-1547 Dec 03 j 07:29	14°♄08'16		evening set	-1540 Jan 09 j 01:35	20°♄51'21	
	-1547 Dec 10 j 21:56	15°♄					
retrograde	-1546 Mar 14 j 09:10	21°♄07'39		conjunction	-1540 Jan 26 j 02:03	22°♄58'14	-1°-11'-21
opposition	-1546 May 24 j 07:25	17°♄49'23	1°38'48	minimum elong	-1540 Jan 26 j 02:00	22°♄58'13	1°11'23
min. Earth dist.	-1546 May 24 j 17:26	17°♄47'32	9.08443 AU	max. Earth dist.	-1540 Jan 25 j 18:49	22°♄55'58	10.48407 AU
	-1546 Jul 09 j 09:26	15°♄		morning rise	-1540 Feb 12 j 07:09	25°♄06'35	
direct	-1546 Aug 03 j 04:13	14°♄30'56			-1540 Mar 27 j 22:51	0°≈	
	-1546 Aug 27 j 12:40	15°♄		retrograde	-1540 May 28 j 12:42	3°≈00'06	
evening set	-1546 Nov 11 j 11:51	21°♄28'46			-1540 Jul 31 j 17:35	30°♄	
				opposition	-1540 Aug 06 j 09:40	29°♄33'25	-1°-44'-52
conjunction	-1546 Nov 28 j 00:39	23°♄25'00	1°09'11	min. Earth dist.	-1540 Aug 06 j 14:03	29°♄32'34	8.41638 AU
minimum elong	-1546 Nov 28 j 00:41	23°♄25'00	1°09'09	direct	-1540 Oct 12 j 22:54	26°♄11'26	
max. Earth dist.	-1546 Nov 27 j 12:56	23°♄21'32	11.05090 AU		-1540 Dec 19 j 11:03	0°≈	
morning rise	-1546 Dec 14 j 14:17	25°♄21'34		evening set	-1539 Jan 21 j 05:11	3°≈46'23	
	-1545 Jan 29 j 03:31	0°♄					
retrograde	-1545 Mar 26 j 10:56	2°♄26'38		conjunction	-1539 Feb 07 j 08:50	5°≈56'03	-1°-36'-38
	-1545 May 24 j 09:24	30°♄		minimum elong	-1539 Feb 07 j 08:47	5°≈56'02	1°36'40
opposition	-1545 Jun 05 j 10:17	29°♄07'15	1°09'03	max. Earth dist.	-1539 Feb 07 j 03:28	5°≈54'21	10.35013 AU
min. Earth dist.	-1545 Jun 05 j 20:32	29°♄05'21	9.01242 AU	morning rise	-1539 Feb 24 j 17:36	8°≈07'20	
direct	-1545 Aug 14 j 19:37	25°♄48'44			-1539 May 04 j 20:08	15°≈	
	-1545 Oct 28 j 05:08	0°♄		retrograde	-1539 Jun 11 j 16:08	16°≈12'09	
evening set	-1545 Nov 22 j 19:17	2°♄48'56			-1539 Jul 19 j 21:12	15°♄	
				opposition	-1539 Aug 20 j 01:37	12°≈44'06	-2°-14'00
conjunction	-1545 Dec 09 j 09:34	4°♄46'37	0°43'23	min. Earth dist.	-1539 Aug 20 j 04:17	12°≈43'34	8.28610 AU
minimum elong	-1545 Dec 09 j 09:35	4°♄46'37	0°43'21	direct	-1539 Oct 26 j 01:54	9°≈20'58	
max. Earth dist.	-1545 Dec 08 j 21:04	4°♄42'54	10.96851 AU		-1538 Jan 17 j 15:46	15°≈	
morning rise	-1545 Dec 26 j 01:47	6°♄44'55		evening set	-1538 Feb 03 j 20:49	17°≈05'59	
retrograde	-1544 Apr 06 j 16:53	13°♄57'16					
opposition	-1544 Jun 16 j 17:22	10°♄36'35	0°36'01	conjunction	-1538 Feb 21 j 04:03	19°≈18'29	-1°-57'-27
min. Earth dist.	-1544 Jun 17 j 03:54	10°♄34'38	8.91935 AU	minimum elong	-1538 Feb 21 j 04:00	19°≈18'28	1°57'29
direct	-1544 Aug 25 j 14:32	7°♄17'45		max. Earth dist.	-1538 Feb 21 j 01:53	19°≈17'47	10.22424 AU
evening set	-1544 Dec 03 j 08:14	14°♄21'59		morning rise	-1538 Mar 10 j 16:27	21°≈32'38	
				retrograde	-1538 Jun 26 j 03:08	29°≈47'48	
conjunction	-1544 Dec 20 j 00:34	16°♄21'30	0°15'23	opposition	-1538 Sep 03 j 00:31	26°≈18'34	-2°-36'-39
minimum elong	-1544 Dec 20 j 00:34	16°♄21'31	0°15'21	min. Earth dist.	-1538 Sep 03 j 00:47	26°≈18'30	8.16759 AU
behind sun begin	-1544 Dec 19 j 22:11	16°♄20'48		direct	-1538 Nov 08 j 14:47	22°≈54'13	
behind sun end	-1544 Dec 20 j 02:57	16°♄22'13			-1537 Feb 11 j 12:29	0°♄	
max. Earth dist.	-1544 Dec 19 j 12:17	16°♄17'49	10.86644 AU	evening set	-1537 Feb 18 j 00:43	0°♄49'13	
morning rise	-1543 Jan 05 j 19:43	18°♄21'55					
retrograde	-1543 Apr 19 j 07:59	25°♄42'59		conjunction	-1537 Mar 07 j 11:53	3°♄04'29	-2°-12'-11
opposition	-1543 Jun 29 j 05:29	22°♄20'53	0°00'43	minimum elong	-1537 Mar 07 j 11:52	3°♄04'29	2°12'12
min. Earth dist.	-1543 Jun 29 j 15:28	22°♄19'00	8.80847 AU	max. Earth dist.	-1537 Mar 07 j 13:25	3°♄04'59	10.11360 AU
desc. node	-1543 Jul 06 j 17:28	21°♄47'09		morning rise	-1537 Mar 25 j 03:54	5°♄21'19	
direct	-1543 Sep 06 j 14:31	19°♄01'31		retrograde	-1537 Jul 10 j 20:36	13°♄44'55	
evening set	-1543 Dec 15 j 04:27	26°♄11'22		opposition	-1537 Sep 17 j 05:13	10°♄14'47	-2°-50'-48
				min. Earth dist.	-1537 Sep 17 j 02:46	10°♄15'17	8.06768 AU
conjunction	-1543 Dec 31 j 23:17	28°♄13'05	0°-13'-56	direct	-1537 Nov 22 j 11:28	6°♄49'12	
minimum elong	-1543 Dec 31 j 23:17	28°♄13'05	0°13'58	evening set	-1536 Mar 03 j 15:46	14°♄53'24	
behind sun begin	-1543 Dec 31 j 19:35	28°♄11'58					
behind sun end	-1542 Jan 01 j 02:58	28°♄14'12		conjunction	-1536 Mar 21 j 07:05	17°♄11'12	-2°-19'-24
max. Earth dist.	-1543 Dec 31 j 12:50	28°♄09'55	10.74836 AU	minimum elong	-1536 Mar 21 j 07:05	17°♄11'12	2°19'26
	-1542 Jan 15 j 16:12	0°♄		max. Earth dist.	-1536 Mar 21 j 12:07	17°♄12'51	10.02477 AU
morning rise	-1542 Jan 17 j 21:30	0°♄15'55		morning rise	-1536 Apr 08 j 02:39	19°♄30'23	
retrograde	-1542 May 02 j 07:55	7°♄47'01		retrograde	-1536 Jul 24 j 19:18	27°♄59'40	
opposition	-1542 Jul 11 j 23:53	4°♄23'22	0°-35'-35	opposition	-1536 Sep 30 j 14:32	24°♄28'57	-2°-54'-52
min. Earth dist.	-1542 Jul 12 j 07:58	4°♄21'50	8.68404 AU	min. Earth dist.	-1536 Sep 30 j 09:31	24°♄29'59	7.99214 AU
direct	-1542 Sep 18 j 18:39	1°♄03'20		direct	-1536 Dec 05 j 15:28	21°♄02'10	
evening set	-1542 Dec 27 j 09:38	8°♄20'17		evening set	-1535 Mar 18 j 15:54	29°♄14'00	
					-1535 Mar 24 j 13:30	0°♄	
conjunction	-1541 Jan 13 j 07:12	10°♄24'28	0°-43'-16				
minimum elong	-1541 Jan 13 j 07:10	10°♄24'28	0°43'18	conjunction	-1535 Apr 05 j 11:21	1°♄33'55	-2°-18'-11
max. Earth dist.	-1541 Jan 12 j 22:30	10°♄21'47	10.61899 AU	minimum elong	-1535 Apr 05 j 11:22	1°♄33'56	2°18'12
morning rise	-1541 Jan 30 j 08:44	12°♄29'58		max. Earth dist.	-1535 Apr 05 j 19:17	1°♄36'32	9.96288 AU
retrograde	-1541 May 15 j 17:23	20°♄12'04		morning rise	-1535 Apr 23 j 10:13	3°♄54'59	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 31

Attention, astronomical year style is used: The year -1535 in astronomical counting style is the year 1536 BCE in historical counting style.

retrograde	-1535 Aug 08 j 19:34	12°Υ26'37		retrograde	-1529 Nov 01 j 09:55	7°♄28'55	
opposition	-1535 Oct 15 j 02:39	8°Υ55'43	-2°-47'-59	opposition	-1528 Jan 07 j 03:59	4°♄04'31	0°34'29
min. Earth dist.	-1535 Oct 14 j 19:41	8°Υ57'10	7.94505 AU	min. Earth dist.	-1528 Jan 06 j 18:57	4°♄06'21	8.30429 AU
direct	-1535 Dec 20 j 02:26	5°Υ27'52		direct	-1528 Mar 15 j 21:51	0°♄35'46	
evening set	-1534 Apr 02 j 22:42	13°Υ45'18		evening set	-1528 Jun 30 j 03:57	8°♄34'48	
conjunction	-1534 Apr 20 j 22:01	16°Υ06'48	-2°-8'-13	conjunction	-1528 Jul 18 j 00:49	10°♄48'19	0°43'48
minimum elong	-1534 Apr 20 j 22:04	16°Υ06'49	2°08'13	minimum elong	-1528 Jul 18 j 00:47	10°♄48'18	0°43'49
max. Earth dist.	-1534 Apr 21 j 07:47	16°Υ10'01	9.93123 AU	max. Earth dist.	-1528 Jul 18 j 11:14	10°♄51'35	10.37112 AU
morning rise	-1534 May 08 j 23:47	18°Υ29'06		morning rise	-1528 Aug 04 j 16:59	13°♄00'23	
retrograde	-1534 Aug 23 j 18:36	26°Υ59'35		retrograde	-1528 Nov 13 j 10:12	20°♄34'53	
opposition	-1534 Oct 29 j 15:33	23°Υ28'59	-2°-30'-16	opposition	-1527 Jan 19 j 11:15	17°♄12'05	1°12'17
min. Earth dist.	-1534 Oct 29 j 07:34	23°Υ30'39	7.92905 AU	min. Earth dist.	-1527 Jan 19 j 03:41	17°♄13'35	8.43834 AU
direct	-1533 Jan 03 j 18:29	20°Υ00'16		direct	-1527 Mar 29 j 19:56	13°♄44'08	
evening set	-1533 Apr 18 j 09:13	28°Υ20'54		evening set	-1527 Jul 13 j 22:28	21°♄34'22	
	-1533 May 01 j 00:30	0°♄		conjunction	-1527 Jul 31 j 14:17	23°♄44'29	1°12'44
conjunction	-1533 May 06 j 11:45	0°♄43'15	-1°-50'-1	minimum elong	-1527 Jul 31 j 14:14	23°♄44'29	1°12'45
minimum elong	-1533 May 06 j 11:48	0°♄43'17	1°50'01	max. Earth dist.	-1527 Jul 31 j 22:41	23°♄47'05	10.50755 AU
max. Earth dist.	-1533 May 06 j 22:42	0°♄46'52	9.93203 AU	morning rise	-1527 Aug 18 j 00:59	25°♄53'03	
morning rise	-1533 May 24 j 15:31	3°♄06'00			-1527 Sep 24 j 05:39	0°♄	
retrograde	-1533 Sep 07 j 13:33	11°♄31'56		retrograde	-1527 Nov 26 j 01:36	3°♄17'06	
opposition	-1533 Nov 13 j 03:26	8°♄02'04	-2°-2'-53		-1526 Jan 31 j 13:54	30°♄	
min. Earth dist.	-1533 Nov 12 j 18:50	8°♄03'52	7.94604 AU	opposition	-1526 Feb 01 j 11:16	29°♄55'49	1°45'16
direct	-1532 Jan 18 j 13:48	4°♄32'44		min. Earth dist.	-1526 Feb 01 j 05:57	29°♄56'51	8.57596 AU
evening set	-1532 May 02 j 20:04	12°♄53'46		direct	-1526 Apr 12 j 09:41	26°♄28'53	
	-1532 May 18 j 23:34	15°♄			-1526 Jun 19 j 02:12	0°♄	
conjunction	-1532 May 21 j 00:34	15°♄16'05	-1°-24'-52	evening set	-1526 Jul 27 j 05:27	4°♄10'08	
minimum elong	-1532 May 21 j 00:37	15°♄16'06	1°24'53	conjunction	-1526 Aug 13 j 15:43	6°♄16'51	1°37'21
max. Earth dist.	-1532 May 21 j 12:22	15°♄19'57	9.96632 AU	minimum elong	-1526 Aug 13 j 15:40	6°♄16'51	1°37'22
morning rise	-1532 Jun 08 j 05:00	17°♄38'18		max. Earth dist.	-1526 Aug 13 j 21:03	6°♄18'29	10.64383 AU
retrograde	-1532 Sep 21 j 01:18	25°♄56'40		morning rise	-1526 Aug 30 j 20:56	8°♄22'02	
opposition	-1532 Nov 26 j 12:08	22°♄27'52	-1°-27'-55		-1526 Nov 11 j 22:46	15°♄	
min. Earth dist.	-1532 Nov 26 j 03:05	22°♄29'45	7.99603 AU	retrograde	-1526 Dec 08 j 07:17	15°♄36'47	
direct	-1531 Feb 01 j 09:12	18°♄58'13			-1525 Jan 04 j 00:04	15°♄	
evening set	-1531 May 18 j 03:43	27°♄16'52		opposition	-1525 Feb 14 j 04:25	12°♄16'53	2°12'16
conjunction	-1531 Jun 05 j 08:42	29°♄38'09	0°-54'-43	min. Earth dist.	-1525 Feb 14 j 01:03	12°♄17'32	8.71033 AU
minimum elong	-1531 Jun 05 j 08:44	29°♄38'10	0°54'43	direct	-1525 Apr 25 j 16:11	8°♄51'07	
max. Earth dist.	-1531 Jun 05 j 20:49	29°♄42'06	10.03255 AU	evening set	-1525 Jul 27 j 23:43	15°♄	
	-1531 Jun 08 j 03:50	0°♄			-1525 Aug 09 j 01:02	16°♄23'36	
morning rise	-1531 Jun 23 j 12:17	1°♄58'54		conjunction	-1525 Aug 26 j 05:52	18°♄27'07	1°56'54
retrograde	-1531 Oct 05 j 05:30	10°♄07'26		minimum elong	-1525 Aug 26 j 05:50	18°♄27'07	1°56'55
opposition	-1531 Dec 10 j 15:54	6°♄39'57	0°-48'-8	max. Earth dist.	-1525 Aug 26 j 08:18	18°♄27'51	10.77371 AU
min. Earth dist.	-1531 Dec 10 j 06:33	6°♄41'53	8.07618 AU	morning rise	-1525 Sep 12 j 05:54	20°♄29'11	
direct	-1530 Feb 16 j 02:27	3°♄10'18		retrograde	-1525 Dec 20 j 07:15	27°♄36'08	
evening set	-1530 Jun 02 j 05:06	11°♄24'06		opposition	-1524 Feb 26 j 15:35	24°♄17'25	2°32'37
conjunction	-1530 Jun 20 j 08:55	13°♄43'28	0°-21'-45	min. Earth dist.	-1524 Feb 26 j 13:36	24°♄17'48	8.83544 AU
minimum elong	-1530 Jun 20 j 08:56	13°♄43'29	0°21'45	direct	-1524 May 07 j 15:05	20°♄52'55	
max. Earth dist.	-1530 Jun 20 j 20:49	13°♄47'18	10.12641 AU	evening set	-1524 Aug 20 j 09:54	28°♄17'06	
morning rise	-1530 Jul 08 j 10:02	16°♄01'55			-1524 Sep 03 j 22:06	0°♄	
retrograde	-1530 Oct 19 j 00:37	23°♄59'16		conjunction	-1524 Sep 06 j 09:53	0°♄17'49	2°10'56
opposition	-1530 Dec 24 j 13:28	20°♄33'17	0°-6'-24	minimum elong	-1524 Sep 06 j 09:51	0°♄17'49	2°10'56
min. Earth dist.	-1530 Dec 24 j 03:53	20°♄35'14	8.18116 AU	max. Earth dist.	-1524 Sep 06 j 10:29	0°♄18'00	10.89170 AU
asc. node	-1529 Feb 20 j 23:29	17°♄08'58		morning rise	-1524 Sep 23 j 05:13	2°♄17'11	
direct	-1529 Mar 02 j 15:19	17°♄03'56		retrograde	-1524 Dec 31 j 02:57	9°♄17'50	
evening set	-1529 Jun 16 j 21:48	25°♄11'00		opposition	-1523 Mar 09 j 21:33	6°♄00'06	2°46'02
conjunction	-1529 Jul 04 j 22:48	27°♄27'42	0°11'47	min. Earth dist.	-1523 Mar 09 j 21:08	6°♄00'11	8.94612 AU
minimum elong	-1529 Jul 04 j 22:48	27°♄27'42	0°11'49	direct	-1523 May 20 j 04:06	2°♄36'55	
behind sun begin	-1529 Jul 04 j 17:47	27°♄26'07		evening set	-1523 Sep 01 j 09:41	9°♄53'36	
behind sun end	-1529 Jul 05 j 03:49	27°♄29'16		conjunction	-1523 Sep 18 j 05:28	11°♄51'59	2°19'15
max. Earth dist.	-1529 Jul 05 j 10:16	27°♄31'20	10.24163 AU	minimum elong	-1523 Sep 18 j 05:26	11°♄51'58	2°19'16
morning rise	-1529 Jul 22 j 19:57	29°♄43'09		max. Earth dist.	-1523 Sep 18 j 04:18	11°♄51'38	10.99313 AU
	-1529 Jul 25 j 02:20	0°♄		morning rise	-1523 Oct 04 j 20:54	13°♄49'09	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 32

Attention, astronomical year style is used: The year -1522 in astronomical counting style is the year 1523 BCE in historical counting style.

retrograde	-1522 Jan 11 j 17:51	20° $\mathbb{M}$ 45'03		max. Earth dist.	-1517 Nov 22 j 23:14	18° $\mathbb{M}$ 38'08	11.10869 AU
opposition	-1522 Mar 21 j 23:18	17° $\mathbb{M}$ 28'07	2°52'30	morning rise	-1517 Dec 09 j 23:46	20° $\mathbb{M}$ 37'14	
min. Earth dist.	-1522 Mar 22 j 01:26	17° $\mathbb{M}$ 27'43	9.03818 AU	retrograde	-1516 Mar 20 j 10:04	27° $\mathbb{M}$ 38'23	
direct	-1522 Jun 01 j 10:53	14° $\mathbb{M}$ 06'11		opposition	-1516 May 30 j 10:21	24° $\mathbb{M}$ 20'12	1°22'31
evening set	-1522 Sep 13 j 01:47	21° $\mathbb{M}$ 16'23		min. Earth dist.	-1516 May 30 j 20:49	24° $\mathbb{M}$ 18'17	9.07705 AU
				direct	-1516 Aug 09 j 00:53	21° $\mathbb{M}$ 02'26	
conjunction	-1522 Sep 29 j 18:00	23° $\mathbb{M}$ 12'55	2°21'55	evening set	-1516 Nov 17 j 03:59	28° $\mathbb{M}$ 00'15	
minimum elong	-1522 Sep 29 j 18:00	23° $\mathbb{M}$ 12'55	2°21'55				
max. Earth dist.	-1522 Sep 29 j 13:59	23° $\mathbb{M}$ 11'44	11.07433 AU	conjunction	-1516 Dec 03 j 17:28	29° $\mathbb{M}$ 56'52	0°55'05
morning rise	-1522 Oct 16 j 06:39	25° $\mathbb{M}$ 08'27		minimum elong	-1516 Dec 03 j 17:29	29° $\mathbb{M}$ 56'53	0°55'03
	-1522 Dec 04 j 02:54	0° $\underline{\mathbb{A}}$		max. Earth dist.	-1516 Dec 03 j 05:51	29° $\mathbb{M}$ 53'26	11.03874 AU
retrograde	-1521 Jan 23 j 06:32	2° $\underline{\mathbb{A}}$ 01'13			-1516 Dec 04 j 04:03	0° $\mathbb{A}$	
	-1521 Mar 16 j 12:28	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-1516 Dec 20 j 08:19	1° $\mathbb{A}$ 54'00	
opposition	-1521 Apr 02 j 22:14	28° $\mathbb{M}$ 44'48	2°52'11	retrograde	-1515 Apr 01 j 13:43	9° $\mathbb{A}$ 01'37	
min. Earth dist.	-1521 Apr 03 j 02:47	28° $\mathbb{M}$ 43'57	9.10836 AU	opposition	-1515 Jun 11 j 14:28	5° $\mathbb{A}$ 42'15	0°50'57
direct	-1521 Jun 13 j 12:14	25° $\mathbb{M}$ 24'03		min. Earth dist.	-1515 Jun 12 j 00:36	5° $\mathbb{A}$ 40'23	8.99472 AU
	-1521 Sep 01 j 17:28	0° $\underline{\mathbb{A}}$		direct	-1515 Aug 20 j 18:35	2° $\mathbb{A}$ 24'18	
evening set	-1521 Sep 24 j 11:29	2° $\underline{\mathbb{A}}$ 28'50		evening set	-1515 Nov 28 j 13:32	9° $\mathbb{A}$ 25'19	
conjunction	-1521 Oct 11 j 01:05	4° $\underline{\mathbb{A}}$ 24'04	2°19'05	conjunction	-1515 Dec 15 j 04:49	11° $\mathbb{A}$ 23'36	0°28'02
minimum elong	-1521 Oct 11 j 01:06	4° $\underline{\mathbb{A}}$ 24'05	2°19'04	minimum elong	-1515 Dec 15 j 04:50	11° $\mathbb{A}$ 23'37	0°27'59
max. Earth dist.	-1521 Oct 10 j 18:32	4° $\underline{\mathbb{A}}$ 22'10	11.13257 AU	max. Earth dist.	-1515 Dec 14 j 17:03	11° $\mathbb{A}$ 20'06	10.94546 AU
morning rise	-1521 Oct 27 j 12:01	6° $\underline{\mathbb{A}}$ 18'34		morning rise	-1515 Dec 31 j 22:15	13° $\mathbb{A}$ 22'38	
retrograde	-1520 Feb 03 j 16:57	13° $\underline{\mathbb{A}}$ 09'49		retrograde	-1514 Apr 14 j 01:48	20° $\mathbb{A}$ 38'18	
opposition	-1520 Apr 13 j 19:13	9° $\underline{\mathbb{A}}$ 53'36	2°45'23	opposition	-1514 Jun 23 j 23:26	17° $\mathbb{A}$ 17'36	0°16'40
min. Earth dist.	-1520 Apr 14 j 01:11	9° $\underline{\mathbb{A}}$ 52'31	9.15428 AU	min. Earth dist.	-1514 Jun 24 j 09:24	17° $\mathbb{A}$ 15'44	8.89043 AU
direct	-1520 Jun 24 j 09:43	6° $\underline{\mathbb{A}}$ 33'53		direct	-1514 Sep 01 j 14:23	13° $\mathbb{A}$ 59'12	
evening set	-1520 Oct 04 j 16:42	13° $\underline{\mathbb{A}}$ 34'30		evening set	-1514 Dec 10 j 05:37	21° $\mathbb{A}$ 05'07	
				desc. node	-1514 Dec 17 j 14:23	21° $\mathbb{A}$ 57'46	
conjunction	-1520 Oct 21 j 04:47	15° $\underline{\mathbb{A}}$ 29'00	2°11'02	conjunction	-1514 Dec 26 j 23:00	23° $\mathbb{A}$ 05'27	0°00'-44
minimum elong	-1520 Oct 21 j 04:49	15° $\underline{\mathbb{A}}$ 29'00	2°11'01	minimum elong	-1514 Dec 26 j 23:02	23° $\mathbb{A}$ 05'28	0°00'47
max. Earth dist.	-1520 Oct 20 j 21:07	15° $\underline{\mathbb{A}}$ 26'46	11.16584 AU	behind sun begin	-1514 Dec 26 j 16:01	23° $\mathbb{A}$ 03'22	
morning rise	-1520 Nov 06 j 14:49	17° $\underline{\mathbb{A}}$ 22'58		behind sun end	-1514 Dec 27 j 06:02	23° $\mathbb{A}$ 07'33	
retrograde	-1519 Feb 14 j 06:14	24° $\underline{\mathbb{A}}$ 14'19		max. Earth dist.	-1514 Dec 26 j 10:34	23° $\mathbb{A}$ 01'43	10.83195 AU
opposition	-1519 Apr 25 j 15:11	20° $\underline{\mathbb{A}}$ 58'02	2°32'29	morning rise	-1513 Jan 12 j 19:36	25° $\mathbb{A}$ 06'49	
min. Earth dist.	-1519 Apr 25 j 22:00	20° $\underline{\mathbb{A}}$ 56'47	9.17435 AU		-1513 Feb 28 j 17:54	0° $\mathbb{B}$	
direct	-1519 Jul 06 j 04:01	17° $\underline{\mathbb{A}}$ 39'10		retrograde	-1513 Apr 26 j 20:02	2° $\mathbb{B}$ 32'00	
evening set	-1519 Oct 15 j 19:10	24° $\underline{\mathbb{A}}$ 36'54			-1513 Jun 25 j 09:05	30° $\mathbb{R}$ $\mathbb{A}$	
				opposition	-1513 Jul 06 j 14:18	29° $\mathbb{A}$ 09'45	0°-19'-13
conjunction	-1519 Nov 01 j 06:34	26° $\underline{\mathbb{A}}$ 31'13	1°58'07	min. Earth dist.	-1513 Jul 07 j 00:15	29° $\mathbb{A}$ 07'52	8.76831 AU
minimum elong	-1519 Nov 01 j 06:37	26° $\underline{\mathbb{A}}$ 31'13	1°58'07	direct	-1513 Sep 13 j 14:41	25° $\mathbb{A}$ 50'38	
max. Earth dist.	-1519 Oct 31 j 21:54	26° $\underline{\mathbb{A}}$ 28'41	11.17298 AU		-1513 Nov 25 j 04:07	0° $\mathbb{B}$	
morning rise	-1519 Nov 17 j 16:36	28° $\underline{\mathbb{A}}$ 25'14		evening set	-1513 Dec 22 j 05:52	3° $\mathbb{B}$ 03'08	
	-1519 Dec 01 j 21:46	0° $\mathbb{M}$					
retrograde	-1518 Feb 25 j 20:07	5° $\mathbb{M}$ 18'13		conjunction	-1512 Jan 08 j 01:52	5° $\mathbb{B}$ 05'51	0°-30'-6
opposition	-1518 May 07 j 11:44	2° $\mathbb{M}$ 01'36	2°14'00	minimum elong	-1512 Jan 08 j 01:51	5° $\mathbb{B}$ 05'50	0°30'08
min. Earth dist.	-1518 May 07 j 20:05	2° $\mathbb{M}$ 00'04	9.16791 AU	max. Earth dist.	-1512 Jan 07 j 14:01	5° $\mathbb{B}$ 02'14	10.70307 AU
	-1518 Jun 06 j 09:06	30° $\mathbb{R}$ $\underline{\mathbb{A}}$		morning rise	-1512 Jan 25 j 01:50	7° $\mathbb{B}$ 09'48	
direct	-1518 Jul 17 j 17:54	28° $\underline{\mathbb{A}}$ 43'22		retrograde	-1512 May 08 j 23:14	14° $\mathbb{B}$ 45'42	
	-1518 Aug 27 j 02:16	0° $\mathbb{M}$		opposition	-1512 Jul 18 j 11:43	11° $\mathbb{B}$ 21'46	0°-55'-19
evening set	-1518 Oct 26 j 20:42	5° $\mathbb{M}$ 39'37		min. Earth dist.	-1512 Jul 18 j 20:50	11° $\mathbb{B}$ 20'01	8.63388 AU
				direct	-1512 Sep 24 j 23:03	8° $\mathbb{B}$ 01'41	
conjunction	-1518 Nov 12 j 08:00	7° $\mathbb{M}$ 34'13	1°40'48	evening set	-1511 Jan 02 j 16:01	15° $\mathbb{B}$ 22'11	
minimum elong	-1518 Nov 12 j 08:02	7° $\mathbb{M}$ 34'14	1°40'47				
max. Earth dist.	-1518 Nov 11 j 21:26	7° $\mathbb{M}$ 31'09	11.15375 AU	conjunction	-1511 Jan 19 j 14:58	17° $\mathbb{B}$ 27'33	0°-58'-51
morning rise	-1518 Nov 28 j 19:01	9° $\mathbb{M}$ 28'48		minimum elong	-1511 Jan 19 j 14:55	17° $\mathbb{B}$ 27'32	0°58'53
	-1517 Jan 26 j 03:56	15° $\mathbb{M}$		max. Earth dist.	-1511 Jan 19 j 05:13	17° $\mathbb{B}$ 24'31	10.56460 AU
retrograde	-1517 Mar 09 j 12:57	16° $\mathbb{M}$ 25'05		morning rise	-1511 Feb 05 j 18:18	19° $\mathbb{B}$ 34'19	
	-1517 Apr 22 j 04:38	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	-1511 May 22 j 13:11	27° $\mathbb{B}$ 21'39	
opposition	-1517 May 19 j 09:51	13° $\mathbb{M}$ 07'50	1°50'28	opposition	-1511 Jul 31 j 16:05	23° $\mathbb{B}$ 56'00	-1°-29'-59
min. Earth dist.	-1517 May 19 j 19:44	13° $\mathbb{M}$ 06'02	9.13519 AU	min. Earth dist.	-1511 Jul 31 j 23:11	23° $\mathbb{B}$ 54'37	8.49341 AU
direct	-1517 Jul 29 j 09:24	9° $\mathbb{M}$ 49'57		direct	-1511 Oct 07 j 13:17	20° $\mathbb{B}$ 34'45	
	-1517 Oct 22 j 01:29	15° $\mathbb{M}$		evening set	-1510 Jan 15 j 13:19	28° $\mathbb{B}$ 04'27	
evening set	-1517 Nov 06 j 23:03	16° $\mathbb{M}$ 46'13			-1510 Jan 30 j 23:24	0° $\approx$	
conjunction	-1517 Nov 23 j 11:03	18° $\mathbb{M}$ 41'36	1°19'34	conjunction	-1510 Feb 01 j 15:28	0° $\approx$ 12'37	-1°-25'-32
minimum elong	-1517 Nov 23 j 11:05	18° $\mathbb{M}$ 41'37	1°19'34				



# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodiens AG 7-Dez-2017 14:44, page 33

Attention, astronomical year style is used: The year -1510 in astronomical counting style is the year 1511 BCE in historical counting style.

minimum elong	-1510 Feb 01 j 15:25	0°≈12'36	1°25'34	morning rise	-1504 May 16 j 19:49	26°Υ37'09	
max. Earth dist.	-1510 Feb 01 j 08:28	0°≈10'25	10.42326 AU		-1504 Jun 13 j 07:52	0°♄	
morning rise	-1510 Feb 18 j 22:15	2°≈22'19		retrograde	-1504 Aug 31 j 02:25	5°♄06'23	
retrograde	-1510 Jun 05 j 12:02	10°≈21'19		opposition	-1504 Nov 05 j 21:09	1°♄35'26	-2°-16'-46
opposition	-1510 Aug 14 j 03:58	6°≈53'58	-2°-1'-19	min. Earth dist.	-1504 Nov 05 j 12:10	1°♄37'19	7.91603 AU
min. Earth dist.	-1510 Aug 14 j 08:21	6°≈53'06	8.35382 AU		-1504 Nov 25 j 15:20	30°♄	
direct	-1510 Oct 20 j 11:31	3°≈31'25		direct	-1503 Jan 11 j 04:52	28°Υ05'44	
evening set	-1509 Jan 28 j 22:38	11°≈11'08			-1503 Feb 26 j 00:31	0°♄	
				evening set	-1503 Apr 26 j 02:33	6°♄27'31	
conjunction	-1509 Feb 15 j 04:11	13°≈22'12	-1°-48'-34				
minimum elong	-1509 Feb 15 j 04:08	13°≈22'11	1°48'36	conjunction	-1503 May 14 j 06:32	8°♄50'12	-1°-37'-18
max. Earth dist.	-1509 Feb 14 j 23:42	13°≈20'46	10.28622 AU	minimum elong	-1503 May 14 j 06:36	8°♄50'14	1°37'19
	-1509 Feb 27 j 23:34	15°≈		max. Earth dist.	-1503 May 14 j 19:30	8°♄54'29	9.92927 AU
morning rise	-1509 Mar 04 j 14:38	15°≈34'53		morning rise	-1503 Jun 01 j 10:55	11°♄13'00	
retrograde	-1509 Jun 19 j 19:35	23°≈45'00			-1503 Jul 02 j 16:16	15°♄	
opposition	-1509 Aug 27 j 23:05	20°≈16'07	-2°-27'-11	retrograde	-1503 Sep 14 j 18:31	19°♄35'54	
min. Earth dist.	-1509 Aug 28 j 00:57	20°≈15'45	8.22231 AU	opposition	-1503 Nov 20 j 07:52	16°♄05'53	-1°-44'-57
direct	-1509 Nov 02 j 18:35	16°≈52'10		min. Earth dist.	-1503 Nov 19 j 21:31	16°♄08'03	7.95307 AU
evening set	-1508 Feb 11 j 20:26	24°≈42'14			-1503 Dec 03 j 17:18	15°♄	
				direct	-1502 Jan 25 j 23:28	12°♄35'48	
conjunction	-1508 Feb 29 j 05:38	26°≈56'11	-2°-6'-17		-1502 Mar 19 j 05:26	15°♄	
minimum elong	-1508 Feb 29 j 05:36	26°≈56'10	2°06'18	evening set	-1502 May 11 j 12:20	20°♄56'20	
max. Earth dist.	-1508 Feb 29 j 03:34	26°≈55'31	10.16088 AU				
morning rise	-1508 Mar 17 j 19:51	29°≈11'45		conjunction	-1502 May 29 j 17:34	23°♄18'25	-1°-9'-10
	-1508 Mar 24 j 05:39	0°♄		minimum elong	-1502 May 29 j 17:37	23°♄18'26	1°09'10
retrograde	-1508 Jul 03 j 10:36	7°♄31'33		max. Earth dist.	-1502 May 30 j 07:42	23°♄23'03	9.98370 AU
opposition	-1508 Sep 10 j 00:42	4°♄01'27	-2°-45'-31	morning rise	-1502 Jun 16 j 21:46	25°♄40'09	
min. Earth dist.	-1508 Sep 10 j 00:31	4°♄01'29	8.10618 AU		-1502 Jul 23 j 13:00	0°♄	
direct	-1508 Nov 15 j 10:07	0°♄36'03		retrograde	-1502 Sep 29 j 04:19	3°♄54'00	
evening set	-1507 Feb 25 j 05:57	8°♄36'06		opposition	-1502 Dec 04 j 14:16	0°♄25'20	-1°-6'-58
				min. Earth dist.	-1502 Dec 04 j 03:35	0°♄27'33	8.02262 AU
conjunction	-1507 Mar 14 j 19:08	10°♄52'48	-2°-17'-8		-1502 Dec 09 j 16:43	30°♄	
minimum elong	-1507 Mar 14 j 19:07	10°♄52'47	2°17'09	direct	-1501 Feb 09 j 17:31	26°♄55'13	
max. Earth dist.	-1507 Mar 14 j 20:01	10°♄53'05	10.05455 AU		-1501 Apr 10 j 23:25	0°♄	
morning rise	-1507 Apr 01 j 13:07	13°♄11'00		evening set	-1501 May 26 j 17:22	5°♄11'57	
retrograde	-1507 Jul 18 j 07:24	21°♄38'13					
opposition	-1507 Sep 24 j 07:59	18°♄07'14	-2°-54'-26	conjunction	-1501 Jun 13 j 22:07	7°♄32'29	0°-37'-10
min. Earth dist.	-1507 Sep 24 j 05:39	18°♄07'43	8.01238 AU	minimum elong	-1501 Jun 13 j 22:09	7°♄32'30	0°37'10
direct	-1507 Nov 29 j 10:40	14°♄40'27		max. Earth dist.	-1501 Jun 14 j 12:16	7°♄37'04	10.06851 AU
evening set	-1506 Mar 12 j 01:42	22°♄49'19		morning rise	-1501 Jul 02 j 00:32	9°♄52'15	
				retrograde	-1501 Oct 13 j 04:31	17°♄55'20	
conjunction	-1506 Mar 29 j 19:08	25°♄08'27	-2°-19'-54	opposition	-1501 Dec 18 j 15:14	14°♄28'18	0°-25'-42
minimum elong	-1506 Mar 29 j 19:09	25°♄08'27	2°19'55	min. Earth dist.	-1501 Dec 18 j 05:04	14°♄30'23	8.12010 AU
max. Earth dist.	-1506 Mar 29 j 23:21	25°♄09'50	9.97392 AU	direct	-1500 Feb 24 j 08:57	10°♄58'31	
morning rise	-1506 Apr 16 j 16:44	27°♄28'54		evening set	-1500 Jun 09 j 14:39	19°♄09'19	
	-1506 May 06 j 21:56	0°♄					
retrograde	-1506 Aug 02 j 06:36	6°♄00'26		conjunction	-1500 Jun 27 j 17:09	21°♄27'26	0°-3'-39
opposition	-1506 Oct 08 j 19:12	2°♄29'00	-2°-52'-43	minimum elong	-1500 Jun 27 j 17:10	21°♄27'26	0°03'39
min. Earth dist.	-1506 Oct 08 j 14:38	2°♄29'57	7.94685 AU	behind sun begin	-1500 Jun 27 j 09:54	21°♄25'08	
	-1506 Nov 11 j 04:52	30°♄		behind sun end	-1500 Jun 28 j 00:25	21°♄29'44	
direct	-1506 Dec 13 j 19:54	29°♄01'00		max. Earth dist.	-1500 Jun 28 j 06:13	21°♄31'36	10.17808 AU
	-1505 Jan 15 j 03:07	0°♄		morning rise	-1500 Jul 15 j 16:20	23°♄44'28	
evening set	-1505 Mar 27 j 05:53	7°♄16'47		asc. node	-1500 Aug 07 j 07:51	26°♄27'33	
					-1500 Sep 13 j 13:06	0°♄	
conjunction	-1505 Apr 14 j 03:31	9°♄37'51	-2°-13'-58	retrograde	-1500 Oct 25 j 18:18	1°♄36'02	
minimum elong	-1505 Apr 14 j 03:33	9°♄37'52	2°13'59		-1500 Dec 07 j 17:24	30°♄	
max. Earth dist.	-1505 Apr 14 j 11:05	9°♄40'21	9.92426 AU	opposition	-1500 Dec 31 j 09:30	28°♄10'47	0°15'57
morning rise	-1505 May 02 j 04:16	11°♄59'55		min. Earth dist.	-1500 Dec 31 j 00:07	28°♄12'42	8.23934 AU
retrograde	-1505 Aug 17 j 05:37	20°♄32'09		direct	-1499 Mar 09 j 19:07	24°♄41'40	
opposition	-1505 Oct 23 j 08:12	17°♄00'44	-2°-39'-56		-1499 May 31 j 21:18	0°♄	
min. Earth dist.	-1505 Oct 23 j 01:21	17°♄02'09	7.91396 AU	evening set	-1499 Jun 24 j 02:16	2°♄44'57	
direct	-1505 Dec 28 j 10:43	13°♄31'43					
evening set	-1504 Apr 10 j 15:22	21°♄51'57		conjunction	-1499 Jul 12 j 01:07	5°♄00'04	0°29'25
				minimum elong	-1499 Jul 12 j 01:06	5°♄00'03	0°29'25
conjunction	-1504 Apr 28 j 16:41	24°♄14'15	-1°-59'-28	max. Earth dist.	-1499 Jul 12 j 12:22	5°♄03'36	10.30564 AU
minimum elong	-1504 Apr 28 j 16:44	24°♄14'17	1°59'28	morning rise	-1499 Jul 29 j 19:52	7°♄13'51	
max. Earth dist.	-1504 Apr 29 j 03:19	24°♄17'47	9.90900 AU	retrograde	-1499 Nov 07 j 22:34	14°♄53'53	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 34

Attention, astronomical year style is used: The year -1498 in astronomical counting style is the year 1499 BCE in historical counting style.

opposition	-1498 Jan 13 j 20:26	11° $\overline{30}$ '26	0°55'29	direct	-1492 Jun 07 j 14:05	20° $\overline{10}$ '39'37	
min. Earth dist.	-1498 Jan 13 j 11:50	11° $\overline{33}$ '20'09	8.37314 AU	evening set	-1492 Sep 18 j 20:26	27° $\overline{10}$ '47'02	
direct	-1498 Mar 23 j 21:48	8° $\overline{50}$ '2'14					
evening set	-1498 Jul 08 j 02:53	15° $\overline{55}$ '7'00		conjunction	-1492 Oct 05 j 11:18	29° $\overline{10}$ '42'53	2°20'53
				minimum elong	-1492 Oct 05 j 11:18	29° $\overline{10}$ '42'53	2°20'53
conjunction	-1498 Jul 25 j 21:04	18° $\overline{50}$ '08'46	0°59'58	max. Earth dist.	-1492 Oct 05 j 05:40	29° $\overline{10}$ '41'14	11.10991 AU
minimum elong	-1498 Jul 25 j 21:02	18° $\overline{50}$ '08'45	0°59'59		-1492 Oct 07 j 21:48	0° $\overline{00}$ '	
max. Earth dist.	-1498 Jul 26 j 06:31	18° $\overline{51}$ '11'42	10.44368 AU	morning rise	-1492 Oct 21 j 22:49	1° $\overline{00}$ '37'50	
morning rise	-1498 Aug 12 j 10:33	20° $\overline{59}$ '19'02		retrograde	-1491 Jan 29 j 02:31	8° $\overline{00}$ '29'56	
retrograde	-1498 Nov 20 j 18:43	27° $\overline{54}$ '08'08		opposition	-1491 Apr 08 j 22:37	5° $\overline{00}$ '13'54	2°49'03
opposition	-1497 Jan 27 j 00:12	24° $\overline{52}$ '26'25	1°30'53	min. Earth dist.	-1491 Apr 09 j 04:26	5° $\overline{00}$ '12'49	9.13514 AU
min. Earth dist.	-1497 Jan 26 j 16:36	24° $\overline{52}$ '27'55	8.51383 AU	direct	-1491 Jun 19 j 11:57	1° $\overline{00}$ '53'54	
direct	-1497 Apr 06 j 16:11	20° $\overline{55}$ '59'21		evening set	-1491 Sep 30 j 04:04	8° $\overline{00}$ '56'39	
evening set	-1497 Jul 21 j 15:47	28° $\overline{54}$ '5'05					
	-1497 Jul 31 j 22:38	0° $\overline{00}$ '		conjunction	-1491 Oct 16 j 16:49	10° $\overline{00}$ '51'31	2°15'07
				minimum elong	-1491 Oct 16 j 16:51	10° $\overline{00}$ '51'32	2°15'06
conjunction	-1497 Aug 08 j 04:42	0° $\overline{00}$ '53'24	1°26'43	max. Earth dist.	-1491 Oct 16 j 08:38	10° $\overline{00}$ '49'08	11.15015 AU
minimum elong	-1497 Aug 08 j 04:39	0° $\overline{00}$ '53'23	1°26'44	morning rise	-1491 Nov 02 j 03:08	12° $\overline{00}$ '45'45	
max. Earth dist.	-1497 Aug 08 j 12:26	0° $\overline{00}$ '55'47	10.58463 AU	retrograde	-1490 Feb 09 j 14:21	19° $\overline{00}$ '37'14	
morning rise	-1497 Aug 25 j 12:28	3° $\overline{00}$ '00'09		opposition	-1490 Apr 20 j 19:22	16° $\overline{00}$ '21'06	2°38'50
retrograde	-1497 Dec 03 j 05:45	10° $\overline{00}$ '19'20		min. Earth dist.	-1490 Apr 21 j 03:36	16° $\overline{00}$ '19'35	9.16238 AU
opposition	-1496 Feb 08 j 21:00	6° $\overline{00}$ '59'12	2°00'44	direct	-1490 Jul 01 j 08:24	13° $\overline{00}$ '01'49	
min. Earth dist.	-1496 Feb 08 j 15:06	7° $\overline{00}$ '00'21	8.65401 AU	evening set	-1490 Oct 11 j 08:02	20° $\overline{00}$ '01'09	
direct	-1496 Apr 19 j 02:35	3° $\overline{00}$ '33'23					
evening set	-1496 Aug 02 j 17:07	11° $\overline{00}$ '10'04		conjunction	-1490 Oct 27 j 19:34	21° $\overline{00}$ '55'35	2°04'19
				minimum elong	-1490 Oct 27 j 19:36	21° $\overline{00}$ '55'36	2°04'19
conjunction	-1496 Aug 20 j 00:34	13° $\overline{00}$ '15'02	1°48'39	max. Earth dist.	-1490 Oct 27 j 09:05	21° $\overline{00}$ '52'32	11.16455 AU
minimum elong	-1496 Aug 20 j 00:31	13° $\overline{00}$ '15'01	1°48'41	morning rise	-1490 Nov 13 j 05:40	23° $\overline{00}$ '49'39	
max. Earth dist.	-1496 Aug 20 j 06:09	13° $\overline{00}$ '16'44	10.72138 AU		-1489 Jan 22 j 16:23	0° $\overline{00}$ '	
	-1496 Sep 03 j 12:39	15° $\overline{00}$ '		retrograde	-1489 Feb 21 j 02:24	0° $\overline{00}$ '42'07	
morning rise	-1496 Sep 06 j 02:47	15° $\overline{00}$ '18'29			-1489 Mar 23 j 02:38	30° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$	
retrograde	-1496 Dec 14 j 10:09	22° $\overline{00}$ '29'03		opposition	-1489 May 02 j 15:59	27° $\overline{00}$ '25'31	2°22'47
opposition	-1495 Feb 20 j 11:19	19° $\overline{00}$ '10'17	2°24'10	min. Earth dist.	-1489 May 03 j 01:20	27° $\overline{00}$ '23'49	9.16336 AU
min. Earth dist.	-1495 Feb 20 j 08:14	19° $\overline{00}$ '10'53	8.78674 AU	direct	-1489 Jul 13 j 01:23	24° $\overline{00}$ '06'46	
direct	-1495 May 02 j 04:02	15° $\overline{00}$ '45'44			-1489 Oct 12 j 22:02	0° $\overline{00}$ '	
evening set	-1495 Aug 15 j 07:24	23° $\overline{00}$ '13'47		evening set	-1489 Oct 22 j 09:50	1° $\overline{00}$ '03'59	
conjunction	-1495 Sep 01 j 09:35	25° $\overline{00}$ '15'44	2°05'13	conjunction	-1489 Nov 07 j 21:11	2° $\overline{00}$ '58'32	1°48'54
minimum elong	-1495 Sep 01 j 09:32	25° $\overline{00}$ '15'43	2°05'14	minimum elong	-1489 Nov 07 j 21:14	2° $\overline{00}$ '58'32	1°48'53
max. Earth dist.	-1495 Sep 01 j 11:34	25° $\overline{00}$ '16'20	10.84726 AU	max. Earth dist.	-1489 Nov 07 j 10:18	2° $\overline{00}$ '55'21	11.15276 AU
morning rise	-1495 Sep 18 j 06:55	27° $\overline{00}$ '16'15		morning rise	-1489 Nov 24 j 07:48	4° $\overline{00}$ '52'56	
	-1495 Oct 12 j 19:01	0° $\overline{00}$ '		retrograde	-1488 Mar 03 j 18:48	11° $\overline{00}$ '48'02	
retrograde	-1495 Dec 26 j 07:13	4° $\overline{00}$ '19'42		opposition	-1488 May 13 j 13:25	8° $\overline{00}$ '30'42	2°01'25
opposition	-1494 Mar 04 j 19:57	1° $\overline{00}$ '02'04	2°40'44	min. Earth dist.	-1488 May 13 j 23:03	8° $\overline{00}$ '28'56	9.13812 AU
min. Earth dist.	-1494 Mar 04 j 19:47	1° $\overline{00}$ '02'06	8.90545 AU	direct	-1488 Jul 23 j 17:55	5° $\overline{00}$ '12'15	
	-1494 Mar 18 j 17:34	30° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$		evening set	-1488 Nov 01 j 11:45	12° $\overline{00}$ '08'48	
direct	-1494 May 14 j 21:03	27° $\overline{00}$ '38'47					
	-1494 Jul 09 j 08:27	0° $\overline{00}$ '		conjunction	-1488 Nov 17 j 23:37	14° $\overline{00}$ '03'58	1°29'20
evening set	-1494 Aug 27 j 11:49	4° $\overline{00}$ '15'58'58		minimum elong	-1488 Nov 17 j 23:40	14° $\overline{00}$ '03'59	1°29'19
				max. Earth dist.	-1488 Nov 17 j 12:19	14° $\overline{00}$ '00'40	11.11515 AU
conjunction	-1494 Sep 13 j 09:16	6° $\overline{00}$ '15'20'07	2°16'07		-1488 Nov 25 j 22:59	15° $\overline{00}$ '	
minimum elong	-1494 Sep 13 j 09:15	6° $\overline{00}$ '15'20	2°16'08	morning rise	-1488 Dec 04 j 11:28	15° $\overline{00}$ '59'14	
max. Earth dist.	-1494 Sep 13 j 07:34	6° $\overline{00}$ '15'50	10.95639 AU	retrograde	-1487 Mar 15 j 14:32	22° $\overline{00}$ '58'29	
morning rise	-1494 Sep 30 j 02:29	8° $\overline{00}$ '15'6'27		opposition	-1487 May 25 j 12:43	19° $\overline{00}$ '40'13	1°35'20
retrograde	-1493 Jan 06 j 23:14	15° $\overline{00}$ '15'4'30		min. Earth dist.	-1487 May 25 j 22:55	19° $\overline{00}$ '38'21	9.08755 AU
opposition	-1493 Mar 16 j 23:56	12° $\overline{00}$ '17'37'42	2°50'18	direct	-1487 Aug 04 j 07:56	16° $\overline{00}$ '21'51	
min. Earth dist.	-1493 Mar 17 j 01:51	12° $\overline{00}$ '17'37'20	9.00499 AU	evening set	-1487 Nov 12 j 15:34	23° $\overline{00}$ '19'20	
direct	-1493 May 27 j 09:28	9° $\overline{00}$ '15'38					
evening set	-1493 Sep 08 j 07:40	16° $\overline{00}$ '17'28'57		conjunction	-1487 Nov 29 j 04:23	25° $\overline{00}$ '15'33	1°06'12
				minimum elong	-1487 Nov 29 j 04:25	25° $\overline{00}$ '15'33	1°06'10
conjunction	-1493 Sep 25 j 01:21	18° $\overline{00}$ '17'26'16	2°21'18	max. Earth dist.	-1487 Nov 28 j 15:47	25° $\overline{00}$ '11'50	11.05303 AU
minimum elong	-1493 Sep 25 j 01:20	18° $\overline{00}$ '17'26'15	2°21'18	morning rise	-1487 Dec 15 j 18:16	27° $\overline{00}$ '12'08	
max. Earth dist.	-1493 Sep 24 j 21:21	18° $\overline{00}$ '17'25'05	11.04476 AU		-1486 Jan 10 j 08:08	0° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$	
morning rise	-1493 Oct 11 j 15:14	20° $\overline{00}$ '17'22'30		retrograde	-1486 Mar 27 j 14:22	4° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$ '17'12	
retrograde	-1492 Jan 18 j 14:42	27° $\overline{00}$ '17'16'48		opposition	-1486 Jun 06 j 15:27	0° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$ '57'47	1°05'14
opposition	-1492 Mar 28 j 00:28	24° $\overline{00}$ '17'00'32	2°52'59	min. Earth dist.	-1486 Jun 07 j 02:31	0° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$ '55'45	9.01341 AU
min. Earth dist.	-1492 Mar 28 j 04:00	23° $\overline{00}$ '17'59'53	9.08223 AU		-1486 Jun 19 j 20:37	30° $\overline{00}$ ' $\overline{R}$ ' $\overline{00}$ '	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), AstroDienst AG 7-Dez-2017 14:44, page 35

Attention, astronomical year style is used: The year -1486 in astronomical counting style is the year 1487 BCE in historical counting style.

direct	-1486 Aug 16 j 00:03	27° $\mathbb{M}$ 39'17			-1480 Aug 16 j 19:59	15° $\mathbb{R}$ $\approx$	
	-1486 Oct 09 j 09:59	0° $\mathbb{Z}$		opposition	-1480 Aug 21 j 07:42	14° $\approx$ 38'37	-2°-16'-39
evening set	-1486 Nov 23 j 22:55	4° $\mathbb{Z}$ 39'17		min. Earth dist.	-1480 Aug 21 j 10:40	14° $\approx$ 38'02	8.27692 AU
				direct	-1480 Oct 27 j 08:30	11° $\approx$ 15'21	
conjunction	-1486 Dec 10 j 13:18	6° $\mathbb{Z}$ 36'59	0°40'10		-1479 Jan 01 j 14:21	15° $\approx$	
minimum elong	-1486 Dec 10 j 13:19	6° $\mathbb{Z}$ 36'59	0°40'08	evening set	-1479 Feb 05 j 03:10	19° $\approx$ 01'07	
max. Earth dist.	-1486 Dec 10 j 00:28	6° $\mathbb{Z}$ 33'10	10.96850 AU				
morning rise	-1486 Dec 27 j 05:46	8° $\mathbb{Z}$ 35'20		conjunction	-1479 Feb 22 j 10:43	21° $\approx$ 13'50	-1°-59'-15
retrograde	-1485 Apr 08 j 21:56	15° $\mathbb{Z}$ 47'48		minimum elong	-1479 Feb 22 j 10:41	21° $\approx$ 13'49	1°59'17
opposition	-1485 Jun 18 j 22:27	12° $\mathbb{Z}$ 27'04	0°31'59	max. Earth dist.	-1479 Feb 22 j 09:04	21° $\approx$ 13'18	10.21466 AU
min. Earth dist.	-1485 Jun 19 j 09:16	12° $\mathbb{Z}$ 25'03	8.91823 AU	morning rise	-1479 Mar 11 j 23:14	23° $\approx$ 28'10	
direct	-1485 Aug 27 j 20:01	9° $\mathbb{Z}$ 08'12			-1479 May 13 j 03:25	0° $\mathbb{H}$	
evening set	-1485 Dec 05 j 11:54	16° $\mathbb{Z}$ 12'21		retrograde	-1479 Jun 27 j 10:08	1° $\mathbb{H}$ 44'06	
					-1479 Aug 12 j 10:55	30° $\mathbb{R}$ $\approx$	
conjunction	-1485 Dec 22 j 04:28	18° $\mathbb{Z}$ 11'56	0°12'03	opposition	-1479 Sep 04 j 06:55	28° $\approx$ 14'45	-2°-38'-28
minimum elong	-1485 Dec 22 j 04:28	18° $\mathbb{Z}$ 11'56	0°12'01	min. Earth dist.	-1479 Sep 04 j 06:53	28° $\approx$ 14'46	8.15791 AU
behind sun begin	-1485 Dec 21 j 23:37	18° $\mathbb{Z}$ 10'29		direct	-1479 Nov 09 j 20:36	24° $\approx$ 50'18	
behind sun end	-1485 Dec 22 j 09:20	18° $\mathbb{Z}$ 13'23			-1478 Jan 27 j 15:19	0° $\mathbb{H}$	
max. Earth dist.	-1485 Dec 21 j 16:46	18° $\mathbb{Z}$ 08'26	10.86431 AU	evening set	-1478 Feb 19 j 07:54	2° $\mathbb{H}$ 46'08	
morning rise	-1484 Jan 07 j 23:44	20° $\mathbb{Z}$ 12'25					
retrograde	-1484 Apr 20 j 12:54	27° $\mathbb{Z}$ 33'45		conjunction	-1478 Mar 08 j 19:23	5° $\mathbb{H}$ 01'38	-2°-13'-14
desc. node	-1484 May 25 j 19:50	26° $\mathbb{Z}$ 35'36		minimum elong	-1478 Mar 08 j 19:22	5° $\mathbb{H}$ 01'37	2°13'16
opposition	-1484 Jun 30 j 10:32	24° $\mathbb{Z}$ 11'32	0°-3'-23	max. Earth dist.	-1478 Mar 08 j 21:19	5° $\mathbb{H}$ 02'16	10.10387 AU
min. Earth dist.	-1484 Jun 30 j 20:05	24° $\mathbb{Z}$ 09'44	8.80532 AU	morning rise	-1478 Mar 26 j 11:32	7° $\mathbb{H}$ 18'41	
direct	-1484 Sep 07 j 18:56	20° $\mathbb{Z}$ 52'08		retrograde	-1478 Jul 12 j 05:44	15° $\mathbb{H}$ 43'02	
evening set	-1484 Dec 16 j 08:25	28° $\mathbb{Z}$ 02'04		opposition	-1478 Sep 18 j 12:11	12° $\mathbb{H}$ 12'48	-2°-51'-37
	-1483 Jan 01 j 14:41	0° $\mathbb{Z}$		min. Earth dist.	-1478 Sep 18 j 09:13	12° $\mathbb{H}$ 13'24	8.05825 AU
				direct	-1478 Nov 23 j 16:48	8° $\mathbb{H}$ 47'08	
conjunction	-1483 Jan 02 j 03:27	0° $\mathbb{Z}$ 03'53	0°-17'-15	evening set	-1477 Mar 05 j 23:48	16° $\mathbb{H}$ 52'12	
minimum elong	-1483 Jan 02 j 03:26	0° $\mathbb{Z}$ 03'53	0°17'17				
max. Earth dist.	-1483 Jan 01 j 17:02	0° $\mathbb{Z}$ 00'43	10.74418 AU	conjunction	-1477 Mar 23 j 15:24	19° $\mathbb{H}$ 10'13	-2°-19'-36
morning rise	-1483 Jan 19 j 01:49	2° $\mathbb{Z}$ 06'48		minimum elong	-1477 Mar 23 j 15:24	19° $\mathbb{H}$ 10'13	2°19'37
retrograde	-1483 May 03 j 13:41	9° $\mathbb{Z}$ 38'17		max. Earth dist.	-1477 Mar 23 j 20:31	19° $\mathbb{H}$ 11'54	10.01580 AU
opposition	-1483 Jul 13 j 05:00	6° $\mathbb{Z}$ 14'31	0°-39'-36	morning rise	-1477 Apr 10 j 11:12	21° $\mathbb{H}$ 29'39	
min. Earth dist.	-1483 Jul 13 j 12:55	6° $\mathbb{Z}$ 13'01	8.67892 AU	retrograde	-1477 Jul 27 j 05:08	29° $\mathbb{H}$ 59'33	
direct	-1483 Sep 19 j 23:14	2° $\mathbb{Z}$ 54'24		opposition	-1477 Oct 02 j 22:04	26° $\mathbb{H}$ 28'48	-2°-54'-34
evening set	-1483 Dec 28 j 14:04	10° $\mathbb{Z}$ 11'37		min. Earth dist.	-1477 Oct 02 j 16:46	26° $\mathbb{H}$ 29'53	7.98396 AU
				direct	-1477 Dec 07 j 22:21	23° $\mathbb{H}$ 01'56	
conjunction	-1482 Jan 14 j 11:41	12° $\mathbb{Z}$ 15'55	0°-46'-26		-1476 Mar 10 j 06:29	0° $\mathbb{Y}$	
minimum elong	-1482 Jan 14 j 11:40	12° $\mathbb{Z}$ 15'54	0°46'28	evening set	-1476 Mar 20 j 00:56	1° $\mathbb{Y}$ 14'38	
max. Earth dist.	-1482 Jan 14 j 02:07	12° $\mathbb{Z}$ 12'58	10.61296 AU				
morning rise	-1482 Jan 31 j 13:28	14° $\mathbb{Z}$ 21'33		conjunction	-1476 Apr 06 j 20:37	3° $\mathbb{Y}$ 34'45	-2°-17'-28
retrograde	-1482 May 17 j 00:11	22° $\mathbb{Z}$ 04'08		minimum elong	-1476 Apr 06 j 20:39	3° $\mathbb{Y}$ 34'46	2°17'28
opposition	-1482 Jul 26 j 06:34	18° $\mathbb{Z}$ 38'50	-1°-15'-8	max. Earth dist.	-1476 Apr 07 j 04:15	3° $\mathbb{Y}$ 37'16	9.95581 AU
min. Earth dist.	-1482 Jul 26 j 13:12	18° $\mathbb{Z}$ 37'33	8.54444 AU	morning rise	-1476 Apr 24 j 19:48	5° $\mathbb{Y}$ 56'01	
direct	-1482 Oct 02 j 09:03	15° $\mathbb{Z}$ 17'48		retrograde	-1476 Aug 10 j 04:44	14° $\mathbb{Y}$ 28'00	
evening set	-1481 Jan 10 j 06:29	22° $\mathbb{Z}$ 43'40		opposition	-1476 Oct 16 j 10:34	10° $\mathbb{Y}$ 57'07	-2°-46'-32
				min. Earth dist.	-1476 Oct 16 j 03:46	10° $\mathbb{Y}$ 58'32	7.93937 AU
conjunction	-1481 Jan 27 j 07:03	24° $\mathbb{Z}$ 50'39	-1°-14'-13	direct	-1476 Dec 21 j 10:32	7° $\mathbb{Y}$ 29'11	
minimum elong	-1481 Jan 27 j 07:00	24° $\mathbb{Z}$ 50'39	1°14'15	evening set	-1475 Apr 04 j 08:23	15° $\mathbb{Y}$ 47'15	
max. Earth dist.	-1481 Jan 26 j 23:00	24° $\mathbb{Z}$ 48'08	10.47649 AU				
morning rise	-1481 Feb 13 j 12:25	26° $\mathbb{Z}$ 59'10		conjunction	-1475 Apr 22 j 07:54	18° $\mathbb{Y}$ 08'54	-2°-6'-36
	-1481 Mar 11 j 09:29	0° $\approx$		minimum elong	-1475 Apr 22 j 07:57	18° $\mathbb{Y}$ 08'55	2°06'36
retrograde	-1481 May 30 j 18:18	4° $\approx$ 53'19		max. Earth dist.	-1475 Apr 22 j 17:11	18° $\mathbb{Y}$ 11'58	9.92719 AU
opposition	-1481 Aug 08 j 15:26	1° $\approx$ 26'31	-1°-48'-10	morning rise	-1475 May 10 j 09:57	20° $\mathbb{Y}$ 31'20	
min. Earth dist.	-1481 Aug 08 j 20:33	1° $\approx$ 25'31	8.40817 AU	retrograde	-1475 Aug 25 j 03:00	29° $\mathbb{Y}$ 01'48	
	-1481 Aug 27 j 15:26	30° $\mathbb{R}$ $\mathbb{Z}$		opposition	-1475 Oct 30 j 23:47	25° $\mathbb{Y}$ 31'15	-2°-27'-43
direct	-1481 Oct 15 j 04:09	28° $\mathbb{Z}$ 04'24		min. Earth dist.	-1475 Oct 30 j 16:12	25° $\mathbb{Y}$ 32'50	7.92657 AU
	-1481 Dec 01 j 00:20	0° $\approx$		direct	-1474 Jan 05 j 03:15	22° $\mathbb{Y}$ 02'27	
evening set	-1480 Jan 23 j 10:40	5° $\approx$ 39'58			-1474 Apr 16 j 18:21	0° $\mathbb{Z}$	
				evening set	-1474 Apr 19 j 19:04	0° $\mathbb{Z}$ 23'23	
conjunction	-1480 Feb 09 j 14:35	7° $\approx$ 49'49	-1°-39'-3				
minimum elong	-1480 Feb 09 j 14:32	7° $\approx$ 49'48	1°39'05	conjunction	-1474 May 07 j 21:46	2° $\mathbb{Z}$ 45'50	-1°-47'-35
max. Earth dist.	-1480 Feb 09 j 09:13	7° $\approx$ 48'06	10.34135 AU	minimum elong	-1474 May 07 j 21:50	2° $\mathbb{Z}$ 45'51	1°47'35
morning rise	-1480 Feb 26 j 23:33	10° $\approx$ 01'15		max. Earth dist.	-1474 May 08 j 08:15	2° $\mathbb{Z}$ 49'17	9.93108 AU
	-1480 Apr 11 j 16:01	15° $\approx$		morning rise	-1474 May 26 j 01:47	5° $\mathbb{Z}$ 08'38	
retrograde	-1480 Jun 12 j 21:43	18° $\approx$ 06'48		retrograde	-1474 Sep 08 j 21:26	13° $\mathbb{Z}$ 34'17	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodiens AG 7-Dez-2017 14:44, page 36

Attention, astronomical year style is used: The year -1474 in astronomical counting style is the year 1475 BCE in historical counting style.

opposition	-1474 Nov 14 j 11:40	10° $\text{8}^{\circ}$ 04'29	-1°-59'-25	opposition	-1467 Feb 02 j 18:40	1° $\text{8}^{\circ}$ 53'53	1°48'44
min. Earth dist.	-1474 Nov 14 j 03:18	10° $\text{8}^{\circ}$ 06'13	7.94632 AU	min. Earth dist.	-1467 Feb 02 j 13:26	1° $\text{8}^{\circ}$ 54'55	8.58367 AU
direct	-1473 Jan 19 j 22:23	6° $\text{8}^{\circ}$ 35'06			-1467 Feb 28 j 12:01	30° $\text{8}^{\circ}$ $\text{8}^{\circ}$	
evening set	-1473 May 05 j 06:01	14° $\text{8}^{\circ}$ 56'15		direct	-1467 Apr 13 j 18:50	28° $\text{8}^{\circ}$ 27'03	
	-1473 May 05 j 17:41	15° $\text{8}^{\circ}$			-1467 May 27 j 12:40	0° $\text{8}^{\circ}$	
				evening set	-1467 Jul 28 j 13:10	6° $\text{8}^{\circ}$ 07'53	
conjunction	-1473 May 23 j 10:41	17° $\text{8}^{\circ}$ 18'35	-1°-21'-48				
minimum elong	-1473 May 23 j 10:45	17° $\text{8}^{\circ}$ 18'36	1°21'48	conjunction	-1467 Aug 14 j 22:58	8° $\text{8}^{\circ}$ 14'22	1°39'54
max. Earth dist.	-1473 May 23 j 22:13	17° $\text{8}^{\circ}$ 22'22	9.96777 AU	minimum elong	-1467 Aug 14 j 22:55	8° $\text{8}^{\circ}$ 14'21	1°39'55
morning rise	-1473 Jun 10 j 15:14	19° $\text{8}^{\circ}$ 40'49		max. Earth dist.	-1467 Aug 15 j 03:53	8° $\text{8}^{\circ}$ 15'52	10.65163 AU
retrograde	-1473 Sep 23 j 09:48	27° $\text{8}^{\circ}$ 58'44		morning rise	-1467 Sep 01 j 03:50	10° $\text{8}^{\circ}$ 19'20	
opposition	-1473 Nov 28 j 20:14	24° $\text{8}^{\circ}$ 30'02	-1°-23'-47		-1467 Oct 15 j 06:17	15° $\text{8}^{\circ}$	
min. Earth dist.	-1473 Nov 28 j 11:00	24° $\text{8}^{\circ}$ 31'56	7.99838 AU	retrograde	-1467 Dec 09 j 13:24	17° $\text{8}^{\circ}$ 33'41	
direct	-1472 Feb 03 j 18:14	21° $\text{8}^{\circ}$ 00'23			-1466 Feb 05 j 10:21	15° $\text{8}^{\circ}$ $\text{8}^{\circ}$	
evening set	-1472 May 19 j 13:38	29° $\text{8}^{\circ}$ 19'01		opposition	-1466 Feb 15 j 11:26	14° $\text{8}^{\circ}$ 13'52	2°15'01
	-1472 May 24 j 21:36	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$		min. Earth dist.	-1466 Feb 15 j 07:30	14° $\text{8}^{\circ}$ 14'38	8.71823 AU
				direct	-1466 Apr 27 j 01:00	10° $\text{8}^{\circ}$ 48'12	
conjunction	-1472 Jun 06 j 18:42	1° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 40'16	0°-51'-12		-1466 Jul 11 j 03:30	15° $\text{8}^{\circ}$	
minimum elong	-1472 Jun 06 j 18:45	1° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 40'17	0°51'12	evening set	-1466 Aug 10 j 08:05	18° $\text{8}^{\circ}$ 20'11	
max. Earth dist.	-1472 Jun 07 j 06:59	1° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 44'16	10.03581 AU				
morning rise	-1472 Jun 24 j 22:11	4° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 00'58		conjunction	-1466 Aug 27 j 12:36	20° $\text{8}^{\circ}$ 23'31	1°58'50
retrograde	-1472 Oct 06 j 13:41	12° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 08'58		minimum elong	-1466 Aug 27 j 12:33	20° $\text{8}^{\circ}$ 23'30	1°58'51
opposition	-1472 Dec 11 j 23:56	8° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 41'37	0°-43'-35	max. Earth dist.	-1466 Aug 27 j 15:34	20° $\text{8}^{\circ}$ 24'24	10.78155 AU
min. Earth dist.	-1472 Dec 11 j 14:01	8° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'39	8.08013 AU	morning rise	-1466 Sep 13 j 12:11	22° $\text{8}^{\circ}$ 25'22	
direct	-1471 Feb 17 j 11:52	5° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 12'00		retrograde	-1466 Dec 21 j 14:08	29° $\text{8}^{\circ}$ 23'55	
evening set	-1471 Jun 03 j 14:41	13° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 25'40		opposition	-1465 Feb 27 j 22:20	26° $\text{8}^{\circ}$ 13'16	2°34'34
				min. Earth dist.	-1465 Feb 27 j 19:57	26° $\text{8}^{\circ}$ 13'43	8.84316 AU
conjunction	-1471 Jun 21 j 18:27	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 44'56	0°-18'-3	direct	-1465 May 09 j 21:36	22° $\text{8}^{\circ}$ 48'53	
minimum elong	-1471 Jun 21 j 18:28	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 44'56	0°18'02		-1465 Aug 20 j 21:18	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$	
max. Earth dist.	-1471 Jun 22 j 07:03	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 48'59	10.13110 AU	evening set	-1465 Aug 22 j 16:23	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 12'31	
morning rise	-1471 Jul 09 j 19:16	18° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 03'15					
retrograde	-1471 Oct 20 j 08:16	26° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 00'06		conjunction	-1465 Sep 08 j 16:03	2° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 13'03	2°12'11
opposition	-1471 Dec 25 j 21:23	22° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 34'14	0°-1'-46	minimum elong	-1465 Sep 08 j 16:01	2° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 13'03	2°12'12
min. Earth dist.	-1471 Dec 25 j 11:30	22° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 36'15	8.18644 AU	max. Earth dist.	-1465 Sep 08 j 17:19	2° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 13'26	10.89921 AU
asc. node	-1470 Jan 11 j 02:45	21° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 16'50		morning rise	-1465 Sep 25 j 10:56	4° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 12'14	
direct	-1470 Mar 04 j 00:14	19° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 04'58		retrograde	-1464 Jan 02 j 08:43	11° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 12'31	
evening set	-1470 Jun 18 j 07:04	27° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 11'48		opposition	-1464 Mar 11 j 04:08	7° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 54'51	2°47'08
				min. Earth dist.	-1464 Mar 11 j 04:04	7° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 54'51	8.95343 AU
conjunction	-1470 Jul 06 j 07:54	29° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 28'21	0°15'29	direct	-1464 May 21 j 10:56	4° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 31'44	
minimum elong	-1470 Jul 06 j 07:53	29° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 28'20	0°15'30	evening set	-1464 Sep 02 j 15:35	11° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 47'53	
behind sun begin	-1470 Jul 06 j 06:23	29° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 27'52					
behind sun end	-1470 Jul 06 j 09:22	29° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 28'48		conjunction	-1464 Sep 19 j 10:58	13° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 46'05	2°19'49
max. Earth dist.	-1470 Jul 06 j 19:55	29° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 32'09	10.24750 AU	minimum elong	-1464 Sep 19 j 10:56	13° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 46'05	2°19'50
	-1470 Jul 10 j 11:30	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$		max. Earth dist.	-1464 Sep 19 j 09:33	13° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 45'40	11.00015 AU
morning rise	-1470 Jul 24 j 04:38	1° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'37		morning rise	-1464 Oct 06 j 02:10	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'06	
retrograde	-1470 Nov 02 j 17:49	9° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 28'53		retrograde	-1463 Jan 12 j 23:14	22° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 38'41	
opposition	-1469 Jan 08 j 11:42	6° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 04'37	0°38'57	opposition	-1463 Mar 23 j 05:38	19° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 21'46	2°52'45
min. Earth dist.	-1469 Jan 08 j 03:01	6° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 06'22	8.31065 AU	min. Earth dist.	-1463 Mar 23 j 08:13	19° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 21'17	9.04497 AU
direct	-1469 Mar 18 j 05:34	2° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 35'56		direct	-1463 Jun 02 j 17:15	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 59'54	
evening set	-1469 Jul 02 j 12:52	10° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 34'40		evening set	-1463 Sep 14 j 07:00	23° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 09'33	
conjunction	-1469 Jul 20 j 09:21	12° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 48'00	0°47'16	conjunction	-1463 Sep 30 j 22:55	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 05'57	2°21'48
minimum elong	-1469 Jul 20 j 09:18	12° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 48'00	0°47'17	minimum elong	-1463 Sep 30 j 22:55	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 05'57	2°21'47
max. Earth dist.	-1469 Jul 20 j 19:37	12° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 51'13	10.37789 AU	max. Earth dist.	-1463 Sep 30 j 18:24	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 04'37	11.08076 AU
morning rise	-1469 Aug 07 j 01:05	14° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 59'52		morning rise	-1463 Oct 17 j 11:32	27° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 01'23	
retrograde	-1469 Nov 15 j 18:14	22° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 33'51			-1463 Nov 14 j 01:25	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$	
opposition	-1468 Jan 21 j 18:52	19° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 11'12	1°16'21	retrograde	-1462 Jan 24 j 10:14	3° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 53'52	
min. Earth dist.	-1468 Jan 21 j 11:54	19° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 12'35	8.44551 AU	opposition	-1462 Apr 04 j 04:08	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 37'26	2°51'36
direct	-1468 Mar 31 j 03:28	15° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'21		min. Earth dist.	-1462 Apr 04 j 08:19	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 36'39	9.11442 AU
evening set	-1468 Jul 15 j 06:52	23° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 33'13			-1462 Apr 12 j 15:58	30° $\text{8}^{\circ}$ $\text{II}^{\circ}$	
				direct	-1462 Jun 14 j 18:35	27° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 16'44	
conjunction	-1468 Aug 01 j 22:09	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'07	1°15'48		-1462 Aug 14 j 00:19	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$	
minimum elong	-1468 Aug 01 j 22:06	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 43'06	1°15'49	evening set	-1462 Sep 25 j 16:06	4° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 21'01	
max. Earth dist.	-1468 Aug 02 j 05:51	25° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 45'30	10.51495 AU				
morning rise	-1468 Aug 19 j 08:29	27° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 51'29		conjunction	-1462 Oct 12 j 05:38	6° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 16'09	2°18'18
	-1468 Sep 06 j 16:15	0° $\text{8}^{\circ}$ $\text{II}^{\circ}$		minimum elong	-1462 Oct 12 j 05:39	6° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 16'09	2°18'17
retrograde	-1468 Nov 27 j 07:10	5° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 15'02		max. Earth dist.	-1462 Oct 11 j 23:38	6° $\text{8}^{\circ}$ $\text{II}^{\circ}$ 14'24	11.13818 AU

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodiens AG 7-Dez-2017 14:44, page 37

Attention, astronomical year style is used: The year -1462 in astronomical counting style is the year 1463 BCE in historical counting style.

morning rise	-1462 Oct 28 j 16:27	8°♄10'32		opposition	-1455 Jun 25 j 04:00	19°♄07'15	0°12'38
retrograde	-1461 Feb 04 j 23:02	15°♄01'35		min. Earth dist.	-1455 Jun 25 j 14:17	19°♄05'19	8.89140 AU
opposition	-1461 Apr 16 j 00:46	11°♄45'21	2°44'02	direct	-1455 Sep 02 j 17:19	15°♄48'53	
min. Earth dist.	-1461 Apr 16 j 06:01	11°♄44'23	9.15936 AU	desc. node	-1455 Nov 06 j 04:52	19°♄06'23	
direct	-1461 Jun 26 j 16:19	8°♄25'43		evening set	-1455 Dec 11 j 08:54	22°♄54'40	
evening set	-1461 Oct 06 j 20:49	15°♄25'48					
conjunction	-1461 Oct 23 j 08:54	17°♄20'15	2°09'38	conjunction	-1455 Dec 28 j 02:25	24°♄55'01	0°-4'-4
minimum elong	-1461 Oct 23 j 08:56	17°♄20'16	2°09'38	minimum elong	-1455 Dec 28 j 02:23	24°♄55'00	0°04'07
max. Earth dist.	-1461 Oct 23 j 01:54	17°♄18'13	11.17047 AU	behind sun begin	-1455 Dec 27 j 19:28	24°♄52'57	
morning rise	-1461 Nov 08 j 18:51	19°♄14'10		behind sun end	-1455 Dec 28 j 09:19	24°♄57'04	
retrograde	-1460 Feb 16 j 10:46	26°♄05'20		max. Earth dist.	-1455 Dec 27 j 13:51	24°♄51'14	10.83290 AU
opposition	-1460 Apr 26 j 20:39	22°♄49'02	2°30'26	morning rise	-1454 Jan 13 j 23:12	26°♄56'22	
min. Earth dist.	-1460 Apr 27 j 03:27	22°♄47'48	9.17846 AU		-1454 Feb 10 j 09:45	0°♄	
direct	-1460 Jul 07 j 07:55	19°♄30'15		retrograde	-1454 Apr 27 j 23:40	4°♄21'39	
evening set	-1460 Oct 16 j 22:52	26°♄27'31		opposition	-1454 Jul 07 j 18:43	0°♄59'23	0°-23'-13
				min. Earth dist.	-1454 Jul 08 j 04:55	0°♄57'27	8.76909 AU
conjunction	-1460 Nov 02 j 10:12	28°♄21'47	1°56'11		-1454 Jul 21 j 01:57	30°♄	
minimum elong	-1460 Nov 02 j 10:15	28°♄21'47	1°56'10	direct	-1454 Sep 14 j 19:49	27°♄40'17	
max. Earth dist.	-1460 Nov 02 j 01:09	28°♄19'08	11.17666 AU		-1454 Nov 06 j 20:26	0°♄	
	-1460 Nov 16 j 13:12	0°♄		evening set	-1454 Dec 23 j 09:13	4°♄52'42	
morning rise	-1460 Nov 18 j 20:24	0°♄15'47		conjunction	-1453 Jan 09 j 05:23	6°♄55'26	0°-33'-17
retrograde	-1459 Feb 27 j 00:27	7°♄08'40		minimum elong	-1453 Jan 09 j 05:22	6°♄55'26	0°33'19
opposition	-1459 May 08 j 16:57	3°♄52'02	2°11'20	max. Earth dist.	-1453 Jan 08 j 18:16	6°♄52'02	10.70358 AU
min. Earth dist.	-1459 May 09 j 01:45	3°♄50'26	9.17107 AU	morning rise	-1453 Jan 26 j 05:25	8°♄59'25	
direct	-1459 Jul 18 j 23:14	0°♄33'51		retrograde	-1453 May 11 j 04:19	16°♄35'27	
evening set	-1459 Oct 28 j 00:06	7°♄29'44		opposition	-1453 Jul 20 j 16:01	13°♄11'30	0°-59'-7
conjunction	-1459 Nov 13 j 11:25	9°♄24'19	1°38'23	min. Earth dist.	-1453 Jul 21 j 00:42	13°♄09'51	8.63413 AU
minimum elong	-1459 Nov 13 j 11:28	9°♄24'19	1°38'22	direct	-1453 Sep 27 j 02:55	9°♄51'28	
max. Earth dist.	-1459 Nov 13 j 00:38	9°♄21'10	11.15650 AU	evening set	-1452 Jan 04 j 19:38	17°♄11'58	
morning rise	-1459 Nov 29 j 22:39	11°♄18'54		conjunction	-1452 Jan 21 j 18:46	19°♄17'21	-1°-1'-48
	-1458 Jan 04 j 02:08	15°♄		minimum elong	-1452 Jan 21 j 18:44	19°♄17'20	1°01'49
retrograde	-1458 Mar 10 j 16:36	18°♄15'07		max. Earth dist.	-1452 Jan 21 j 09:31	19°♄14'29	10.56446 AU
opposition	-1458 May 20 j 14:44	14°♄57'51	1°47'16	morning rise	-1452 Feb 07 j 22:09	21°♄24'09	
	-1458 May 20 j 02:57	15°♄		retrograde	-1452 May 23 j 17:54	29°♄11'40	
min. Earth dist.	-1458 May 21 j 00:26	14°♄56'05	9.13742 AU	opposition	-1452 Aug 01 j 20:19	25°♄46'00	-1°-33'-24
direct	-1458 Jul 30 j 13:45	11°♄40'02		min. Earth dist.	-1452 Aug 02 j 02:53	25°♄44'44	8.49297 AU
	-1458 Oct 04 j 23:14	15°♄		direct	-1452 Oct 08 j 16:44	22°♄24'48	
evening set	-1458 Nov 08 j 02:13	18°♄35'59		evening set	-1451 Jan 16 j 17:22	29°♄54'38	
conjunction	-1458 Nov 24 j 14:24	20°♄31'22	1°16'46		-1451 Jan 17 j 10:48	0°♄	
minimum elong	-1458 Nov 24 j 14:26	20°♄31'23	1°16'45	conjunction	-1451 Feb 02 j 19:35	2°♄02'50	-1°-28'-6
max. Earth dist.	-1458 Nov 24 j 03:27	20°♄28'10	11.11054 AU	minimum elong	-1451 Feb 02 j 19:32	2°♄02'50	1°28'07
morning rise	-1458 Dec 11 j 03:13	22°♄27'01		max. Earth dist.	-1451 Feb 02 j 12:08	2°♄00'30	10.42241 AU
retrograde	-1457 Mar 22 j 14:26	29°♄28'13		morning rise	-1451 Feb 20 j 02:32	4°♄12'35	
opposition	-1457 Jun 01 j 15:08	26°♄10'00	1°18'54	retrograde	-1451 Jun 06 j 17:08	12°♄11'46	
min. Earth dist.	-1457 Jun 02 j 00:40	26°♄08'15	9.07847 AU	opposition	-1451 Aug 15 j 08:16	8°♄44'27	-2°-4'-10
direct	-1457 Aug 11 j 05:48	22°♄52'18		min. Earth dist.	-1451 Aug 15 j 12:43	8°♄43'34	8.35267 AU
evening set	-1457 Nov 19 j 07:04	29°♄49'51		direct	-1451 Oct 21 j 15:08	5°♄21'54	
	-1457 Nov 20 j 18:07	0°♄		evening set	-1450 Jan 30 j 03:02	13°♄01'50	
conjunction	-1457 Dec 05 j 20:41	1°♄46'30	0°52'00		-1450 Feb 14 j 16:01	15°♄	
minimum elong	-1457 Dec 05 j 20:43	1°♄46'31	0°51'57	conjunction	-1450 Feb 16 j 08:37	15°♄12'58	-1°-50'-36
max. Earth dist.	-1457 Dec 05 j 09:41	1°♄43'15	11.03993 AU	minimum elong	-1450 Feb 16 j 08:34	15°♄12'57	1°50'37
morning rise	-1457 Dec 22 j 11:40	3°♄43'39		max. Earth dist.	-1450 Feb 16 j 03:08	15°♄11'13	10.28477 AU
retrograde	-1456 Apr 02 j 19:39	10°♄51'21		morning rise	-1450 Mar 05 j 19:18	17°♄25'43	
opposition	-1456 Jun 12 j 19:14	7°♄31'58	0°47'03	retrograde	-1450 Jun 21 j 01:10	25°♄36'01	
min. Earth dist.	-1456 Jun 13 j 04:55	7°♄30'11	8.99572 AU	opposition	-1450 Aug 29 j 03:33	22°♄07'11	-2°-29'-18
direct	-1456 Aug 21 j 22:32	4°♄14'05		min. Earth dist.	-1450 Aug 29 j 06:06	22°♄06'41	8.22066 AU
evening set	-1456 Nov 29 j 16:47	11°♄14'53		direct	-1450 Nov 03 j 21:58	18°♄43'12	
conjunction	-1456 Dec 16 j 08:06	13°♄13'11	0°24'47	evening set	-1449 Feb 13 j 01:12	26°♄33'33	
minimum elong	-1456 Dec 16 j 08:07	13°♄13'11	0°24'44	conjunction	-1449 Mar 02 j 10:33	28°♄47'34	-2°-7'-38
max. Earth dist.	-1456 Dec 15 j 19:59	13°♄09'34	10.94647 AU	minimum elong	-1449 Mar 02 j 10:30	28°♄47'34	2°07'40
morning rise	-1455 Jan 02 j 01:48	15°♄12'16		max. Earth dist.	-1449 Mar 02 j 07:53	28°♄46'43	10.15909 AU
retrograde	-1455 Apr 15 j 05:05	22°♄27'58			-1449 Mar 11 j 18:58	0°♄	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 38

Attention, astronomical year style is used: The year -1449 in astronomical counting style is the year 1450 BCE in historical counting style.

morning rise	-1449 Mar 20 j 01:01	1° $\text{K}$ 03'14		morning rise	-1443 Jun 18 j 04:10	27° $\text{B}$ 33'32	
retrograde	-1449 Jul 05 j 16:09	9° $\text{K}$ 23'11			-1443 Jul 07 j 21:42	0° $\text{II}$	
opposition	-1449 Sep 12 j 05:19	5° $\text{K}$ 53'07	-2°-46'-44	retrograde	-1443 Sep 30 j 09:28	5° $\text{II}$ 47'02	
min. Earth dist.	-1449 Sep 12 j 05:51	5° $\text{K}$ 53'01	8.10431 AU	opposition	-1443 Dec 05 j 19:07	2° $\text{II}$ 18'26	-1°-2'-59
direct	-1449 Nov 17 j 14:29	2° $\text{K}$ 27'40		min. Earth dist.	-1443 Dec 05 j 09:12	2° $\text{II}$ 20'30	8.02338 AU
evening set	-1448 Feb 27 j 11:09	10° $\text{K}$ 28'04			-1442 Jan 05 j 06:30	30° $\text{R}$ 8	
				direct	-1442 Feb 10 j 23:47	28° $\text{B}$ 48'15	
conjunction	-1448 Mar 16 j 00:38	12° $\text{K}$ 44'50	-2°-17'-43		-1442 Mar 19 j 13:05	0° $\text{II}$	
minimum elong	-1448 Mar 16 j 00:37	12° $\text{K}$ 44'50	2°17'44	evening set	-1442 May 27 j 23:37	7° $\text{II}$ 05'02	
max. Earth dist.	-1448 Mar 16 j 01:30	12° $\text{K}$ 45'07	10.05266 AU				
morning rise	-1448 Apr 02 j 18:49	15° $\text{K}$ 03'08		conjunction	-1442 Jun 15 j 04:13	9° $\text{II}$ 25'32	0°-33'-52
retrograde	-1448 Jul 19 j 12:04	23° $\text{K}$ 30'27		minimum elong	-1442 Jun 15 j 04:15	9° $\text{II}$ 25'32	0°33'52
opposition	-1448 Sep 25 j 12:40	19° $\text{K}$ 59'30	-2°-54'-39	max. Earth dist.	-1442 Jun 15 j 17:19	9° $\text{II}$ 29'46	10.06961 AU
min. Earth dist.	-1448 Sep 25 j 10:37	19° $\text{K}$ 59'56	8.01051 AU	morning rise	-1442 Jul 03 j 06:37	11° $\text{II}$ 45'15	
direct	-1448 Nov 30 j 16:34	16° $\text{K}$ 32'42		retrograde	-1442 Oct 14 j 08:15	19° $\text{II}$ 48'00	
evening set	-1447 Mar 13 j 07:20	24° $\text{K}$ 41'53		opposition	-1442 Dec 19 j 19:56	16° $\text{II}$ 21'01	0°-21'-30
				min. Earth dist.	-1442 Dec 19 j 10:12	16° $\text{II}$ 23'01	8.12149 AU
conjunction	-1447 Mar 31 j 01:06	27° $\text{K}$ 01'06	-2°-19'-39	direct	-1441 Feb 25 j 15:07	12° $\text{II}$ 51'10	
minimum elong	-1447 Mar 31 j 01:07	27° $\text{K}$ 01'07	2°19'40	evening set	-1441 Jun 11 j 20:45	21° $\text{II}$ 01'59	
max. Earth dist.	-1447 Mar 31 j 05:45	27° $\text{K}$ 02'38	9.97212 AU				
morning rise	-1447 Apr 17 j 22:47	29° $\text{K}$ 21'37		conjunction	-1441 Jun 29 j 23:02	23° $\text{II}$ 20'02	0°00'-12
	-1447 Apr 22 j 22:40	0° $\text{V}$		minimum elong	-1441 Jun 29 j 23:04	23° $\text{II}$ 20'02	0°00'12
retrograde	-1447 Aug 03 j 10:51	7° $\text{V}$ 53'12		behind sun begin	-1441 Jun 29 j 15:49	23° $\text{II}$ 17'45	
opposition	-1447 Oct 09 j 23:56	4° $\text{V}$ 21'47	-2°-51'-52	behind sun end	-1441 Jun 30 j 06:19	23° $\text{II}$ 22'20	
min. Earth dist.	-1447 Oct 09 j 19:07	4° $\text{V}$ 22'47	7.94521 AU	max. Earth dist.	-1441 Jun 30 j 11:16	23° $\text{II}$ 23'56	10.17973 AU
direct	-1447 Dec 15 j 01:06	0° $\text{V}$ 53'46		asc. node	-1441 Jul 02 j 07:20	23° $\text{II}$ 38'02	
evening set	-1446 Mar 28 j 11:49	9° $\text{V}$ 09'49		morning rise	-1441 Jul 17 j 22:06	25° $\text{II}$ 36'58	
					-1441 Aug 25 j 04:15	0° $\text{B}$	
conjunction	-1446 Apr 15 j 09:46	11° $\text{V}$ 30'59	-2°-12'-53	retrograde	-1441 Oct 27 j 22:20	3° $\text{B}$ 28'14	
minimum elong	-1446 Apr 15 j 09:49	11° $\text{V}$ 31'00	2°12'54	opposition	-1440 Jan 02 j 14:01	0° $\text{B}$ 03'01	0°20'07
max. Earth dist.	-1446 Apr 15 j 17:55	11° $\text{V}$ 33'41	9.92284 AU	min. Earth dist.	-1440 Jan 02 j 04:26	0° $\text{B}$ 04'58	8.24122 AU
morning rise	-1446 May 03 j 10:36	13° $\text{V}$ 53'06			-1440 Jan 03 j 04:56	30° $\text{R}$ II	
retrograde	-1446 Aug 18 j 10:48	22° $\text{V}$ 25'18		direct	-1440 Mar 11 j 00:34	26° $\text{II}$ 33'52	
opposition	-1446 Oct 24 j 13:01	18° $\text{V}$ 53'53	-2°-38'-4		-1440 May 15 j 05:57	0° $\text{B}$	
min. Earth dist.	-1446 Oct 24 j 05:46	18° $\text{V}$ 55'24	7.91279 AU	evening set	-1440 Jun 25 j 08:03	4° $\text{B}$ 37'06	
direct	-1446 Dec 29 j 15:00	15° $\text{V}$ 24'51					
evening set	-1445 Apr 12 j 21:34	23° $\text{V}$ 45'17		conjunction	-1440 Jul 13 j 06:41	6° $\text{B}$ 52'08	0°32'41
				minimum elong	-1440 Jul 13 j 06:39	6° $\text{B}$ 52'07	0°32'42
conjunction	-1445 Apr 30 j 23:08	26° $\text{V}$ 07'41	-1°-57'-35	max. Earth dist.	-1440 Jul 13 j 17:53	6° $\text{B}$ 55'40	10.30773 AU
minimum elong	-1445 Apr 30 j 23:12	26° $\text{V}$ 07'42	1°57'36	morning rise	-1440 Jul 31 j 01:06	9° $\text{B}$ 05'47	
max. Earth dist.	-1445 May 01 j 10:01	26° $\text{V}$ 11'17	9.90816 AU	retrograde	-1440 Nov 09 j 03:22	16° $\text{B}$ 45'34	
morning rise	-1445 May 19 j 02:21	28° $\text{V}$ 30'38		opposition	-1439 Jan 15 j 00:55	13° $\text{B}$ 22'09	0°59'23
	-1445 May 30 j 19:23	0° $\text{B}$		min. Earth dist.	-1439 Jan 14 j 15:48	13° $\text{B}$ 23'58	8.37542 AU
retrograde	-1445 Sep 02 j 08:32	6° $\text{B}$ 59'41		direct	-1439 Mar 25 j 02:41	9° $\text{B}$ 53'58	
opposition	-1445 Nov 08 j 02:01	3° $\text{B}$ 28'47	-2°-14'00	evening set	-1439 Jul 09 j 08:10	17° $\text{B}$ 48'36	
min. Earth dist.	-1445 Nov 07 j 17:05	3° $\text{B}$ 30'39	7.91545 AU				
	-1444 Jan 09 j 05:38	30° $\text{R}$ V		conjunction	-1439 Jul 27 j 02:08	20° $\text{B}$ 00'16	1°02'57
direct	-1444 Jan 13 j 08:51	29° $\text{V}$ 59'01		minimum elong	-1439 Jul 27 j 02:05	20° $\text{B}$ 00'15	1°02'59
	-1444 Jan 17 j 12:27	0° $\text{B}$		max. Earth dist.	-1439 Jul 27 j 12:15	20° $\text{B}$ 03'25	10.44616 AU
evening set	-1444 Apr 27 j 09:02	8° $\text{B}$ 20'59		morning rise	-1439 Aug 13 j 15:10	22° $\text{B}$ 10'25	
				retrograde	-1439 Nov 21 j 22:41	29° $\text{B}$ 39'18	
conjunction	-1444 May 15 j 13:07	10° $\text{B}$ 43'43	-1°-34'-46	opposition	-1438 Jan 28 j 04:37	26° $\text{B}$ 17'37	1°34'20
minimum elong	-1444 May 15 j 13:11	10° $\text{B}$ 43'44	1°34'47	min. Earth dist.	-1438 Jan 27 j 20:54	26° $\text{B}$ 19'08	8.51651 AU
max. Earth dist.	-1444 May 16 j 01:44	10° $\text{B}$ 47'52	9.92905 AU	direct	-1438 Apr 07 j 21:20	22° $\text{B}$ 50'35	
morning rise	-1444 Jun 02 j 17:32	13° $\text{B}$ 06'33			-1438 Jul 17 j 19:27	0° $\text{B}$	
	-1444 Jun 17 j 17:56	15° $\text{B}$		evening set	-1438 Jul 22 j 20:47	0° $\text{B}$ 36'11	
retrograde	-1444 Sep 16 j 01:01	21° $\text{B}$ 29'09					
opposition	-1444 Nov 21 j 12:42	17° $\text{B}$ 59'12	-1°-41'-28	conjunction	-1438 Aug 09 j 09:22	2° $\text{B}$ 44'22	1°29'17
min. Earth dist.	-1444 Nov 21 j 02:57	18° $\text{B}$ 01'14	7.95313 AU	minimum elong	-1438 Aug 09 j 09:19	2° $\text{B}$ 44'21	1°29'18
	-1443 Jan 03 j 15:30	15° $\text{R}$ B		max. Earth dist.	-1438 Aug 09 j 17:35	2° $\text{B}$ 46'54	10.58748 AU
direct	-1443 Jan 27 j 04:39	14° $\text{B}$ 29'02		morning rise	-1438 Aug 26 j 16:42	4° $\text{B}$ 50'59	
	-1443 Feb 19 j 18:51	15° $\text{B}$		retrograde	-1438 Dec 04 j 10:29	12° $\text{B}$ 09'59	
evening set	-1443 May 12 j 18:48	22° $\text{B}$ 49'42		opposition	-1437 Feb 10 j 01:19	8° $\text{B}$ 49'55	2°03'35
				min. Earth dist.	-1437 Feb 09 j 19:57	8° $\text{B}$ 50'58	8.65714 AU
conjunction	-1443 May 30 j 23:58	25° $\text{B}$ 11'47	-1°-6'-9	direct	-1437 Apr 21 j 06:38	5° $\text{B}$ 24'08	
minimum elong	-1443 May 31 j 00:02	25° $\text{B}$ 11'48	1°06'09	evening set	-1437 Aug 04 j 21:47	13° $\text{B}$ 00'41	
max. Earth dist.	-1443 May 31 j 13:18	25° $\text{B}$ 16'09	9.98414 AU		-1437 Aug 21 j 10:34	15° $\text{B}$	

# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 39

Attention, astronomical year style is used: The year -1437 in astronomical counting style is the year 1438 BCE in historical counting style.

conjunction	-1437 Aug 22 j 04:48	15°00'53"1	1°50'42"	morning rise	-1431 Nov 14 j 07:37	25°00'35"30	
minimum elong	-1437 Aug 22 j 04:45	15°00'53"30	1°50'43"		-1431 Dec 27 j 21:36	0°00'00"	
max. Earth dist.	-1437 Aug 22 j 10:04	15°00'07"07	10.72476 AU	retrograde	-1430 Feb 22 j 05:19	2°00'27"46	
morning rise	-1437 Sep 08 j 06:43	17°00'08"50			-1430 Apr 22 j 13:16	30°00'00"	
retrograde	-1437 Dec 16 j 13:40	24°00'19"14		opposition	-1430 May 03 j 19:00	29°00'11"12	2°20'30"
opposition	-1436 Feb 22 j 15:41	21°00'00"32	2°26'19"	min. Earth dist.	-1430 May 04 j 03:32	29°00'09"39	9.16920 AU
min. Earth dist.	-1436 Feb 22 j 12:45	21°00'01"06	8.79056 AU	direct	-1430 Jul 14 j 05:17	25°00'52"35	
direct	-1436 May 03 j 08:03	17°00'36"03			-1430 Sep 27 j 06:46	0°00'00"	
evening set	-1436 Aug 16 j 11:34	25°00'03"52		evening set	-1430 Oct 23 j 11:28	2°00'49"19	
conjunction	-1436 Sep 02 j 13:19	27°00'54"40	2°06'40"	conjunction	-1430 Nov 08 j 22:55	4°00'43"49	1°46'49"
minimum elong	-1436 Sep 02 j 13:17	27°00'53"39	2°06'41"	minimum elong	-1430 Nov 08 j 22:58	4°00'43"49	1°46'49"
max. Earth dist.	-1436 Sep 02 j 15:04	27°00'06"12	10.85154 AU	max. Earth dist.	-1430 Nov 08 j 12:40	4°00'40"49	11.15826 AU
morning rise	-1436 Sep 19 j 10:26	29°00'06"05		morning rise	-1430 Nov 25 j 09:32	6°00'38"10	
	-1436 Sep 27 j 04:48	0°00'00"		retrograde	-1429 Mar 05 j 21:44	13°00'33"04	
retrograde	-1436 Dec 27 j 09:41	6°00'09"23		opposition	-1429 May 15 j 16:20	10°00'15"47	1°58'36"
opposition	-1435 Mar 06 j 00:11	2°00'51"46	2°42'06"	min. Earth dist.	-1429 May 16 j 01:49	10°00'14"03	9.14316 AU
min. Earth dist.	-1435 Mar 05 j 23:14	2°00'51"57	8.91033 AU	direct	-1429 Jul 25 j 19:40	6°00'57"28	
	-1435 Apr 20 j 09:13	30°00'00"00		evening set	-1429 Nov 03 j 13:13	13°00'53"34	
direct	-1435 May 16 j 03:13	29°00'28"34			-1429 Nov 13 j 02:39	15°00'00"	
	-1435 Jun 10 j 15:56	0°00'00"					
evening set	-1435 Aug 28 j 15:27	6°00'48"23		conjunction	-1429 Nov 20 j 01:04	15°00'48"41	1°26'51"
conjunction	-1435 Sep 14 j 12:41	8°00'47"37	2°16'56"	minimum elong	-1429 Nov 20 j 01:06	15°00'48"42	1°26'51"
minimum elong	-1435 Sep 14 j 12:40	8°00'47"36	2°16'56"	max. Earth dist.	-1429 Nov 19 j 13:21	15°00'45"15	11.11983 AU
max. Earth dist.	-1435 Sep 14 j 11:47	8°00'47"21	10.96184 AU	morning rise	-1429 Dec 06 j 13:06	17°00'43"56	
morning rise	-1435 Oct 01 j 05:38	10°00'45"35		retrograde	-1428 Mar 16 j 16:02	24°00'43"02	
retrograde	-1434 Jan 08 j 03:41	17°00'43"24		opposition	-1428 May 26 j 15:33	21°00'24"48	1°32'05"
opposition	-1434 Mar 18 j 03:52	14°00'26"37	2°50'53"	min. Earth dist.	-1428 May 27 j 02:18	21°00'22"50	9.09175 AU
min. Earth dist.	-1434 Mar 18 j 04:52	14°00'26"26	9.01091 AU	direct	-1428 Aug 05 j 10:05	18°00'06"31	
direct	-1434 May 28 j 13:35	11°00'04"40		evening set	-1428 Nov 13 j 16:48	25°00'03"37	
evening set	-1434 Sep 09 j 10:49	18°00'17"28					
conjunction	-1434 Sep 26 j 04:22	20°00'14"41	2°21'28"	conjunction	-1428 Nov 30 j 05:40	26°00'59"48	1°03'25"
minimum elong	-1434 Sep 26 j 04:22	20°00'14"40	2°21'28"	minimum elong	-1428 Nov 30 j 05:42	26°00'59"49	1°03'23"
max. Earth dist.	-1434 Sep 26 j 01:26	20°00'13"49	11.05104 AU	max. Earth dist.	-1428 Nov 29 j 16:49	26°00'56"01	11.05682 AU
morning rise	-1434 Oct 12 j 17:58	22°00'10"47		morning rise	-1428 Dec 16 j 19:50	28°00'56"24	
retrograde	-1433 Jan 19 j 17:19	29°00'04"48			-1428 Dec 26 j 03:33	0°00'00"	
opposition	-1433 Mar 30 j 04:16	25°00'48"34	2°52'47"	retrograde	-1427 Mar 28 j 16:33	6°00'01"22	
min. Earth dist.	-1433 Mar 30 j 07:45	25°00'47"55	9.08870 AU	opposition	-1427 Jun 07 j 17:59	2°00'41"57	1°01'41"
direct	-1433 Jun 09 j 16:51	22°00'27"45		min. Earth dist.	-1427 Jun 08 j 05:11	2°00'39"53	9.01664 AU
evening set	-1433 Sep 20 j 23:11	29°00'34"40		direct	-1427 Jul 20 j 11:52	30°00'00"00	
	-1433 Sep 24 j 15:21	0°00'00"			-1427 Aug 17 j 03:02	29°00'23"30	
conjunction	-1433 Oct 07 j 13:48	1°00'30"22	2°20'26"	evening set	-1427 Sep 13 j 06:45	0°00'00"	
minimum elong	-1433 Oct 07 j 13:48	1°00'30"22	2°20'25"		-1427 Nov 25 j 00:00	6°00'23"11	
max. Earth dist.	-1433 Oct 07 j 08:09	1°00'28"43	11.11649 AU				
morning rise	-1433 Oct 24 j 01:14	3°00'25"13		conjunction	-1427 Dec 11 j 14:35	8°00'20"52	0°37'11"
retrograde	-1432 Jan 31 j 05:40	10°00'17"04		minimum elong	-1427 Dec 11 j 14:37	8°00'20"53	0°37'09"
opposition	-1432 Apr 10 j 02:16	7°00'01"04	2°48'06"	max. Earth dist.	-1427 Dec 11 j 02:26	8°00'17"15	10.97118 AU
min. Earth dist.	-1432 Apr 10 j 08:25	6°00'59"56	9.14175 AU	morning rise	-1427 Dec 28 j 07:08	10°00'19"13	
direct	-1432 Jun 20 j 16:17	3°00'41"11		retrograde	-1426 Apr 09 j 23:33	17°00'19"13	
evening set	-1432 Oct 01 j 06:23	10°00'43"25		opposition	-1426 Jun 20 j 00:43	14°00'10"53	0°28'16"
conjunction	-1432 Oct 17 j 18:58	12°00'38"11	2°14'04"	min. Earth dist.	-1426 Jun 20 j 10:57	14°00'08"59	8.92032 AU
minimum elong	-1432 Oct 17 j 18:59	12°00'38"12	2°14'03"	direct	-1426 Aug 28 j 21:55	10°00'52"05	
max. Earth dist.	-1432 Oct 17 j 10:29	12°00'35"43	11.15673 AU	evening set	-1426 Dec 06 j 13:00	17°00'56"00	
morning rise	-1432 Nov 03 j 05:21	14°00'32"20					
retrograde	-1431 Feb 10 j 15:55	21°00'23"34		conjunction	-1426 Dec 23 j 05:42	19°00'55"35	0°09'00"
opposition	-1431 Apr 21 j 22:41	18°00'07"28	2°37'11"	minimum elong	-1426 Dec 23 j 05:42	19°00'55"35	0°08'58"
min. Earth dist.	-1431 Apr 22 j 06:37	18°00'06"01	9.16880 AU	behind sun begin	-1426 Dec 22 j 23:41	19°00'53"48	
direct	-1431 Jul 02 j 11:23	14°00'48"18		behind sun end	-1426 Dec 23 j 11:43	19°00'57"22	
evening set	-1431 Oct 12 j 09:55	21°00'47"08		max. Earth dist.	-1426 Dec 22 j 18:24	19°00'52"12	10.86580 AU
conjunction	-1431 Oct 28 j 21:31	23°00'41"30	2°02'43"	morning rise	-1425 Jan 09 j 01:02	21°00'56"04	
minimum elong	-1431 Oct 28 j 21:33	23°00'41"31	2°02'42"	desc. node	-1425 Apr 18 j 09:21	29°00'16"32	
max. Earth dist.	-1431 Oct 28 j 11:44	23°00'38"39	11.17076 AU	retrograde	-1425 Apr 22 j 16:09	29°00'17"26	
				opposition	-1425 Jul 02 j 12:45	25°00'55"11	0°-7'-8"
				min. Earth dist.	-1425 Jul 02 j 21:53	25°00'53"28	8.80623 AU
				direct	-1425 Sep 09 j 20:50	22°00'35"49	
				evening set	-1425 Dec 18 j 09:33	29°00'45"34	
					-1425 Dec 20 j 09:53	0°00'00"	

## Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 40

Attention, astronomical year style is used: The year -1424 in astronomical counting style is the year 1425 BCE in historical counting style.

conjunction	-1424 Jan 04 j 04:37	1°♄47'24	0°-20'-16	evening set	-1418 Mar 07 j 02:37	18°♄38'27	
minimum elong	-1424 Jan 04 j 04:36	1°♄47'23	0°20'18				
max. Earth dist.	-1424 Jan 03 j 17:33	1°♄44'02	10.74454 AU	conjunction	-1418 Mar 24 j 18:19	20°♄56'36	-2°-19'-43
morning rise	-1424 Jan 21 j 03:11	3°♄50'21		minimum elong	-1418 Mar 24 j 18:19	20°♄56'37	2°19'44
retrograde	-1424 May 04 j 16:27	11°♄21'54		max. Earth dist.	-1418 Mar 24 j 22:28	20°♄57'58	10.01071 AU
opposition	-1424 Jul 14 j 07:08	7°♄58'07	0°-43'-14	morning rise	-1418 Apr 11 j 14:23	23°♄16'10	
min. Earth dist.	-1424 Jul 14 j 15:30	7°♄56'31	8.67869 AU		-1418 Jun 13 j 05:52	0°♄	
direct	-1424 Sep 20 j 23:44	4°♄37'58		retrograde	-1418 Jul 28 j 07:42	1°♄46'22	
evening set	-1424 Dec 29 j 15:23	11°♄55'10			-1418 Sep 11 j 22:12	30°♄	
				opposition	-1418 Oct 04 j 00:23	28°♄15'36	-2°-54'-14
conjunction	-1423 Jan 15 j 13:03	13°♄59'28	0°-49'-17	min. Earth dist.	-1418 Oct 03 j 19:44	28°♄16'34	7.97896 AU
minimum elong	-1423 Jan 15 j 13:01	13°♄59'28	0°49'19	direct	-1418 Dec 09 j 00:14	24°♄48'40	
max. Earth dist.	-1423 Jan 15 j 02:46	13°♄56'18	10.61217 AU		-1417 Feb 25 j 15:04	0°♄	
morning rise	-1423 Feb 01 j 15:02	16°♄05'08		evening set	-1417 Mar 22 j 04:14	3°♄01'52	
retrograde	-1423 May 18 j 00:51	23°♄47'52					
opposition	-1423 Jul 27 j 08:29	20°♄22'30	-1°-18'-29	conjunction	-1417 Apr 09 j 00:07	5°♄22'09	-2°-16'-47
min. Earth dist.	-1423 Jul 27 j 15:52	20°♄21'05	8.54306 AU	minimum elong	-1417 Apr 09 j 00:09	5°♄22'10	2°16'48
direct	-1423 Oct 03 j 10:55	17°♄01'24		max. Earth dist.	-1417 Apr 09 j 06:56	5°♄24'24	9.95121 AU
evening set	-1422 Jan 11 j 07:53	24°♄27'23		morning rise	-1417 Apr 26 j 23:38	7°♄43'34	
				retrograde	-1417 Aug 12 j 07:54	16°♄15'45	
conjunction	-1422 Jan 28 j 08:36	26°♄34'26	-1°-16'-46	opposition	-1417 Oct 18 j 13:08	12°♄44'54	-2°-45'-13
minimum elong	-1422 Jan 28 j 08:33	26°♄34'25	1°16'48	min. Earth dist.	-1417 Oct 18 j 06:54	12°♄46'12	7.93531 AU
max. Earth dist.	-1422 Jan 28 j 00:39	26°♄31'56	10.47452 AU	direct	-1417 Dec 23 j 12:51	9°♄16'53	
morning rise	-1422 Feb 14 j 14:04	28°♄42'58		evening set	-1416 Apr 05 j 12:11	17°♄35'25	
	-1422 Feb 25 j 05:36	0°♄					
retrograde	-1422 May 31 j 19:38	6°♄37'22		conjunction	-1416 Apr 23 j 11:58	19°♄57'11	-2°-5'-10
opposition	-1422 Aug 09 j 17:17	3°♄10'28	-1°-51'-4	minimum elong	-1416 Apr 23 j 12:01	19°♄57'12	2°05'10
min. Earth dist.	-1422 Aug 09 j 22:36	3°♄09'26	8.40567 AU	max. Earth dist.	-1416 Apr 23 j 21:02	20°♄00'11	9.92403 AU
	-1422 Oct 01 j 13:16	30°♄		morning rise	-1416 May 11 j 14:16	22°♄19'44	
direct	-1422 Oct 16 j 06:42	29°♄48'18			-1416 Jul 27 j 01:52	0°♄	
	-1422 Oct 30 j 20:09	0°♄		retrograde	-1416 Aug 26 j 06:20	0°♄50'12	
evening set	-1421 Jan 24 j 12:14	7°♄24'02			-1416 Sep 25 j 12:44	30°♄	
				opposition	-1416 Nov 01 j 02:34	27°♄19'40	-2°-25'-30
conjunction	-1421 Feb 10 j 16:22	9°♄33'57	-1°-41'-9	min. Earth dist.	-1416 Oct 31 j 19:00	27°♄21'15	7.92439 AU
minimum elong	-1421 Feb 10 j 16:19	9°♄33'56	1°41'11	direct	-1415 Jan 06 j 06:35	23°♄50'48	
max. Earth dist.	-1421 Feb 10 j 11:34	9°♄32'26	10.33824 AU		-1415 Apr 03 j 10:30	0°♄	
morning rise	-1421 Feb 28 j 01:21	11°♄45'28		evening set	-1415 Apr 20 j 23:04	2°♄11'59	
	-1421 Mar 27 j 14:11	15°♄					
retrograde	-1421 Jun 15 j 00:43	19°♄51'18		conjunction	-1415 May 09 j 02:00	4°♄34'29	-1°-45'-29
opposition	-1421 Aug 23 j 09:32	16°♄23'02	-2°-18'-56	minimum elong	-1415 May 09 j 02:04	4°♄34'31	1°45'29
min. Earth dist.	-1421 Aug 23 j 12:06	16°♄22'31	8.27335 AU	max. Earth dist.	-1415 May 09 j 12:51	4°♄38'04	9.92998 AU
	-1421 Sep 10 j 07:06	15°♄		morning rise	-1415 May 27 j 06:07	6°♄57'20	
direct	-1421 Oct 29 j 09:25	12°♄59'41			-1415 Aug 20 j 21:44	15°♄	
	-1421 Dec 15 j 19:18	15°♄		retrograde	-1415 Sep 10 j 00:29	15°♄22'47	
evening set	-1420 Feb 07 j 05:11	20°♄45'45			-1415 Sep 30 j 04:19	15°♄	
				opposition	-1415 Nov 15 j 14:29	11°♄53'00	-1°-56'-25
conjunction	-1420 Feb 24 j 12:55	22°♄58'33	-2°00'-48	min. Earth dist.	-1415 Nov 15 j 05:40	11°♄54'50	7.94605 AU
minimum elong	-1420 Feb 24 j 12:52	22°♄58'32	2°00'50	direct	-1414 Jan 21 j 02:32	8°♄23'35	
max. Earth dist.	-1420 Feb 24 j 11:16	22°♄58'01	10.21056 AU		-1414 Apr 22 j 12:43	15°♄	
morning rise	-1420 Mar 13 j 01:30	25°♄12'58		evening set	-1414 May 06 j 10:03	16°♄44'48	
	-1420 Apr 23 j 21:42	0°♄					
retrograde	-1420 Jun 28 j 13:31	3°♄29'13		conjunction	-1414 May 24 j 14:56	19°♄07'10	-1°-19'-10
opposition	-1420 Sep 05 j 08:43	29°♄59'47	-2°-39'-59	minimum elong	-1414 May 24 j 15:00	19°♄07'11	1°19'10
min. Earth dist.	-1420 Sep 05 j 08:25	29°♄59'50	8.15344 AU	max. Earth dist.	-1414 May 25 j 03:04	19°♄11'08	9.96825 AU
	-1420 Sep 05 j 07:37	30°♄		morning rise	-1414 Jun 11 j 19:28	21°♄29'23	
direct	-1420 Nov 10 j 21:29	26°♄35'14		retrograde	-1414 Sep 24 j 12:23	29°♄47'01	
	-1419 Jan 12 j 11:56	0°♄		opposition	-1414 Nov 29 j 22:58	26°♄18'21	-1°-20'-13
evening set	-1419 Feb 20 j 10:22	4°♄31'31		min. Earth dist.	-1414 Nov 29 j 13:17	26°♄20'21	7.99931 AU
				direct	-1413 Feb 04 j 22:07	22°♄48'41	
conjunction	-1419 Mar 09 j 21:57	6°♄47'06	-2°-14'-6		-1413 May 12 j 19:36	0°♄	
minimum elong	-1419 Mar 09 j 21:56	6°♄47'06	2°14'08	evening set	-1413 May 21 j 17:44	1°♄07'21	
max. Earth dist.	-1419 Mar 09 j 23:11	6°♄47'30	10.09904 AU				
morning rise	-1419 Mar 27 j 14:16	9°♄04'16		conjunction	-1413 Jun 08 j 22:55	3°♄28'35	0°-48'-11
retrograde	-1419 Jul 13 j 08:44	17°♄28'56		minimum elong	-1413 Jun 08 j 22:57	3°♄28'36	0°48'12
opposition	-1419 Sep 19 j 14:13	13°♄58'39	-2°-52'-15	max. Earth dist.	-1413 Jun 09 j 11:45	3°♄32'46	10.03718 AU
min. Earth dist.	-1419 Sep 19 j 11:31	13°♄59'12	8.05320 AU	morning rise	-1413 Jun 27 j 02:14	5°♄49'14	
direct	-1419 Nov 24 j 18:50	10°♄32'53		retrograde	-1413 Oct 08 j 16:28	13°♄56'58	



# Planetary Phenomena of Saturn from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:44, page 41

Attention, astronomical year style is used: The year -1413 in astronomical counting style is the year 1414 BCE in historical counting style.

opposition	-1413 Dec 14 j 02:43	10°II29'40	0°-39'-42			-1407 Nov 13 j 12:22	0°ྐྐ	
min. Earth dist.	-1413 Dec 13 j 16:45	10°II31'43	8.08173 AU	retrograde		-1407 Dec 22 j 16:44	1°ྐ18'27	
direct	-1412 Feb 19 j 14:24	7°II00'05				-1406 Jan 31 j 19:43	30°RΩ	
evening set	-1412 Jun 04 j 18:49	15°II13'45		opposition		-1406 Mar 01 j 01:25	27°Ω59'52	2°36'15
				min. Earth dist.		-1406 Feb 28 j 23:20	28°Ω00'16	8.84639 AU
conjunction	-1412 Jun 22 j 22:28	17°II32'58	0°-14'-52	direct		-1406 May 11 j 00:46	24°Ω35'34	
minimum elong	-1412 Jun 22 j 22:29	17°II32'59	0°14'52			-1406 Aug 06 j 05:29	0°ྐྐ	
behind sun begin	-1412 Jun 22 j 19:57	17°II32'10		evening set		-1406 Aug 23 j 19:20	1°ྐ59'02	
behind sun end	-1412 Jun 23 j 01:01	17°II33'47						
max. Earth dist.	-1412 Jun 23 j 11:18	17°II37'05	10.13297 AU	conjunction		-1406 Sep 09 j 18:38	3°ྐ59'27	2°13'16
morning rise	-1412 Jul 10 j 23:01	19°II51'12		minimum elong		-1406 Sep 09 j 18:36	3°ྐ59'27	2°13'17
retrograde	-1412 Oct 21 j 12:14	27°II47'48		max. Earth dist.		-1406 Sep 09 j 19:45	3°ྐ59'47	10.90237 AU
asc. node	-1412 Dec 07 j 01:09	25°II56'00		morning rise		-1406 Sep 26 j 13:16	5°ྐ58'32	
opposition	-1412 Dec 27 j 00:17	24°II22'03	0°02'12	retrograde		-1405 Jan 03 j 11:33	12°ྐ58'43	
min. Earth dist.	-1412 Dec 26 j 14:54	24°II23'57	8.18851 AU	opposition		-1405 Mar 13 j 07:10	9°ྐ41'07	2°48'05
direct	-1411 Mar 05 j 02:25	20°II52'47		min. Earth dist.		-1405 Mar 13 j 07:34	9°ྐ41'02	8.95663 AU
evening set	-1411 Jun 19 j 11:06	28°II59'37		direct		-1405 May 23 j 13:34	6°ྐ18'04	
	-1411 Jun 27 j 11:37	0°ଓ		evening set		-1405 Sep 04 j 18:10	13°ྐ34'00	
conjunction	-1411 Jul 07 j 11:37	1°ଓ16'06	0°18'39	conjunction		-1405 Sep 21 j 13:12	15°ྐ32'06	2°20'17
minimum elong	-1411 Jul 07 j 11:36	1°ଓ16'06	0°18'40	minimum elong		-1405 Sep 21 j 13:11	15°ྐ32'06	2°20'17
max. Earth dist.	-1411 Jul 07 j 23:18	1°ଓ19'48	10.24977 AU	max. Earth dist.		-1405 Sep 21 j 11:15	15°ྐ31'31	11.00326 AU
morning rise	-1411 Jul 25 j 08:07	3°ଓ31'17		morning rise		-1405 Oct 08 j 04:18	17°ྐ29'03	
retrograde	-1411 Nov 03 j 21:16	11°ଓ16'19		retrograde		-1404 Jan 15 j 00:23	24°ྐ24'33	
opposition	-1410 Jan 09 j 14:40	7°ଓ52'10	0°42'48	opposition		-1404 Mar 24 j 08:39	21°ྐ07'38	2°52'56
min. Earth dist.	-1410 Jan 09 j 06:40	7°ଓ53'47	8.31317 AU	min. Earth dist.		-1404 Mar 24 j 10:53	21°ྐ07'13	9.04806 AU
direct	-1410 Mar 19 j 08:43	4°ଓ23'31		direct		-1404 Jun 03 j 20:47	17°ྐ45'50	
evening set	-1410 Jul 03 j 16:46	12°ଓ22'15		evening set		-1404 Sep 15 j 09:01	24°ྐ55'12	
conjunction	-1410 Jul 21 j 12:52	14°ଓ35'29	0°50'16	conjunction		-1404 Oct 02 j 00:50	26°ྐ51'31	2°21'38
minimum elong	-1410 Jul 21 j 12:50	14°ଓ35'29	0°50'17	minimum elong		-1404 Oct 02 j 00:50	26°ྐ51'31	2°21'38
max. Earth dist.	-1410 Jul 21 j 22:13	14°ଓ38'25	10.38052 AU	max. Earth dist.		-1404 Oct 01 j 20:49	26°ྐ50'20	11.08376 AU
morning rise	-1410 Aug 08 j 04:24	16°ଓ47'16		morning rise		-1404 Oct 18 j 13:18	28°ྐ46'53	
retrograde	-1410 Nov 16 j 19:36	24°ଓ21'04				-1404 Oct 29 j 08:57	0°ଓ	
opposition	-1409 Jan 22 j 21:48	20°ଓ58'31	1°19'51	retrograde		-1403 Jan 25 j 13:32	5°ଓ39'19	
min. Earth dist.	-1409 Jan 22 j 15:00	20°ଓ59'52	8.44835 AU	opposition		-1403 Apr 05 j 06:57	2°ଓ22'51	2°51'02
direct	-1409 Apr 02 j 08:17	17°ଓ30'44		min. Earth dist.		-1403 Apr 05 j 10:17	2°ଓ22'14	9.11727 AU
evening set	-1409 Jul 17 j 10:39	25°ଓ20'35				-1403 May 11 j 06:10	30°Rྐ	
conjunction	-1409 Aug 04 j 01:33	27°ଓ30'22	1°18'28	direct		-1403 Jun 15 j 22:42	29°ྐ02'14	
minimum elong	-1409 Aug 04 j 01:30	27°ଓ30'21	1°18'29	evening set		-1403 Jul 20 j 23:27	0°ଓ	
max. Earth dist.	-1409 Aug 04 j 08:43	27°ଓ32'35	10.51785 AU			-1403 Sep 26 j 17:48	6°ଓ06'10	
morning rise	-1409 Aug 21 j 11:36	29°ଓ38'37		conjunction		-1403 Oct 13 j 07:19	8°ଓ01'15	2°17'33
	-1409 Aug 24 j 10:38	0°Ω		minimum elong		-1403 Oct 13 j 07:20	8°ଓ01'15	2°17'32
retrograde	-1409 Nov 29 j 09:58	7°Ω02'04		max. Earth dist.		-1403 Oct 13 j 02:12	7°ଓ59'45	11.14091 AU
opposition	-1408 Feb 04 j 21:38	3°Ω41'00	1°51'45	morning rise		-1403 Oct 29 j 17:59	9°ଓ55'36	
min. Earth dist.	-1408 Feb 04 j 15:51	3°Ω42'07	8.58670 AU	retrograde		-1402 Feb 06 j 00:52	16°ଓ46'32	
direct	-1408 Apr 14 j 22:38	0°Ω14'16		opposition		-1402 Apr 17 j 03:23	13°ଓ30'17	2°42'46
evening set	-1408 Jul 29 j 16:39	7°Ω55'00		min. Earth dist.		-1402 Apr 17 j 08:29	13°ଓ29'21	9.16191 AU
conjunction	-1408 Aug 16 j 02:10	10°Ω01'23	1°42'07	direct		-1402 Jun 27 j 17:12	10°ଓ10'42	
minimum elong	-1408 Aug 16 j 02:06	10°Ω01'22	1°42'08	evening set		-1402 Oct 07 j 22:15	17°ଓ10'27	
max. Earth dist.	-1408 Aug 16 j 07:33	10°Ω03'01	10.65473 AU	conjunction		-1402 Oct 24 j 10:14	19°ଓ04'51	2°08'20
morning rise	-1408 Sep 02 j 06:37	12°Ω06'13		minimum elong		-1402 Oct 24 j 10:16	19°ଓ04'52	2°08'19
	-1408 Sep 27 j 21:08	15°Ω		max. Earth dist.		-1402 Oct 24 j 03:06	19°ଓ02'47	11.17290 AU
retrograde	-1408 Dec 10 j 16:45	19°Ω20'29		morning rise		-1402 Nov 09 j 20:14	20°ଓ58'45	
opposition	-1407 Feb 16 j 14:30	16°Ω00'44	2°17'24	retrograde		-1401 Feb 17 j 12:25	27°ଓ49'49	
min. Earth dist.	-1407 Feb 16 j 10:04	16°Ω01'35	8.72140 AU	opposition		-1401 Apr 28 j 23:13	24°ଓ33'30	2°28'31
	-1407 Mar 01 j 22:14	15°RΩ		min. Earth dist.		-1401 Apr 29 j 06:27	24°ଓ32'11	9.18069 AU
direct	-1407 Apr 28 j 03:41	12°Ω35'11		direct		-1401 Jul 09 j 10:34	21°ଓ14'44	
	-1407 Jun 22 j 19:59	15°Ω		evening set		-1401 Oct 18 j 23:57	28°ଓ11'41	
evening set	-1407 Aug 11 j 11:14	20°Ω07'01				-1401 Nov 03 j 14:56	0°ྐ	
conjunction	-1407 Aug 28 j 15:30	22°Ω10'14	2°00'30	conjunction		-1401 Nov 04 j 11:13	0°ྐ05'55	1°54'22
minimum elong	-1407 Aug 28 j 15:27	22°Ω10'13	2°00'31	minimum elong		-1401 Nov 04 j 11:16	0°ྐ05'55	1°54'22
max. Earth dist.	-1407 Aug 28 j 19:16	22°Ω11'22	10.78475 AU	max. Earth dist.		-1401 Nov 04 j 01:50	0°ྐ03'10	11.17879 AU
morning rise	-1407 Sep 14 j 14:40	24°Ω11'59		morning rise		-1401 Nov 20 j 21:35	1°ྐ59'54	

Attention, astronomical year style is used: The year -1400 in astronomical counting style is the year 1401 BCE in historical counting style.

retrograde	-1400 Feb 29 j 01:39	8° $\overline{\text{M}}$ .52'43	
opposition	-1400 May 09 j 19:19	5° $\overline{\text{M}}$ .36'02	2°08'51
min. Earth dist.	-1400 May 10 j 03:54	5° $\overline{\text{M}}$ .34'28	9.17298 AU
direct	-1400 Jul 20 j 01:36	2° $\overline{\text{M}}$ .17'53	
evening set	-1400 Oct 29 j 00:54	9° $\overline{\text{M}}$ .13'26	
conjunction	-1400 Nov 14 j 12:23	11° $\overline{\text{M}}$ .08'00	1°36'09
minimum elong	-1400 Nov 14 j 12:25	11° $\overline{\text{M}}$ .08'01	1°36'08
max. Earth dist.	-1400 Nov 14 j 02:20	11° $\overline{\text{M}}$ .05'04	11.15827 AU
morning rise	-1400 Nov 30 j 23:42	13° $\overline{\text{M}}$ .02'36	
	-1400 Dec 18 j 16:46	15° $\overline{\text{M}}$ .	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 1

Attention, astronomical year style is used: The year -1400 in astronomical counting style is the year 1401 BCE in historical counting style.

retrograde	-1400 Feb 29 j 01:39	8° $\mathbb{M}$ 52'43			-1395 Oct 12 j 15:24	0° $\mathcal{Z}$	
opposition	-1400 May 09 j 19:19	5° $\mathbb{M}$ 36'02	2°08'51	evening set	-1395 Dec 24 j 09:51	6° $\mathcal{Z}$ 35'10	
min. Earth dist.	-1400 May 10 j 03:54	5° $\mathbb{M}$ 34'28	9.17298 AU				
direct	-1400 Jul 20 j 01:36	2° $\mathbb{M}$ 17'53		conjunction	-1394 Jan 10 j 06:11	8° $\mathcal{Z}$ 37'54	0°-36'-10
evening set	-1400 Oct 29 j 00:54	9° $\mathbb{M}$ 13'26		minimum elong	-1394 Jan 10 j 06:09	8° $\mathcal{Z}$ 37'53	0°36'11
				max. Earth dist.	-1394 Jan 09 j 19:47	8° $\mathcal{Z}$ 34'43	10.70515 AU
conjunction	-1400 Nov 14 j 12:23	11° $\mathbb{M}$ 08'00	1°36'09	morning rise	-1394 Jan 27 j 06:14	10° $\mathcal{Z}$ 41'51	
minimum elong	-1400 Nov 14 j 12:25	11° $\mathbb{M}$ 08'01	1°36'08	retrograde	-1394 May 12 j 05:38	18° $\mathcal{Z}$ 17'54	
max. Earth dist.	-1400 Nov 14 j 02:20	11° $\mathbb{M}$ 05'04	11.15827 AU	opposition	-1394 Jul 21 j 17:22	14° $\mathcal{Z}$ 53'56	-1°-2'-32
morning rise	-1400 Nov 30 j 23:42	13° $\mathbb{M}$ 02'36		min. Earth dist.	-1394 Jul 22 j 01:21	14° $\mathcal{Z}$ 52'24	8.63565 AU
	-1400 Dec 18 j 16:46	15° $\mathbb{M}$		direct	-1394 Sep 28 j 03:47	11° $\mathcal{Z}$ 33'55	
retrograde	-1399 Mar 11 j 18:16	19° $\mathbb{M}$ 58'47		evening set	-1393 Jan 05 j 20:26	18° $\mathcal{Z}$ 54'20	
opposition	-1399 May 21 j 16:44	16° $\mathbb{M}$ 41'27	1°44'19				
min. Earth dist.	-1399 May 22 j 01:37	16° $\mathbb{M}$ 39'49	9.13891 AU	conjunction	-1393 Jan 22 j 19:35	20° $\mathcal{Z}$ 59'42	-1°-4'-26
	-1399 Jun 14 j 23:31	15° $\mathbb{R}$ $\mathbb{M}$		minimum elong	-1393 Jan 22 j 19:32	20° $\mathcal{Z}$ 59'42	1°04'27
direct	-1399 Jul 31 j 16:16	13° $\mathbb{M}$ 23'40		max. Earth dist.	-1393 Jan 22 j 10:00	20° $\mathcal{Z}$ 56'44	10.56576 AU
	-1399 Sep 14 j 18:42	15° $\mathbb{M}$		morning rise	-1393 Feb 08 j 23:06	23° $\mathcal{Z}$ 06'30	
evening set	-1399 Nov 09 j 02:53	20° $\mathbb{M}$ 19'20			-1393 Apr 22 j 19:44	0° $\approx$	
				retrograde	-1393 May 25 j 19:59	0° $\approx$ 54'04	
conjunction	-1399 Nov 25 j 15:15	22° $\mathbb{M}$ 14'44	1°14'12		-1393 Jun 28 j 03:58	30° $\mathbb{R}$ $\mathcal{Z}$	
minimum elong	-1399 Nov 25 j 15:17	22° $\mathbb{M}$ 14'45	1°14'10	opposition	-1393 Aug 03 j 21:41	27° $\mathcal{Z}$ 28'24	-1°-36'-27
max. Earth dist.	-1399 Nov 25 j 05:00	22° $\mathbb{M}$ 11'44	11.11186 AU	min. Earth dist.	-1393 Aug 04 j 04:18	27° $\mathcal{Z}$ 27'07	8.49410 AU
morning rise	-1399 Dec 12 j 04:08	24° $\mathbb{M}$ 10'23		direct	-1393 Oct 10 j 17:26	24° $\mathcal{Z}$ 07'13	
	-1398 Feb 12 j 21:05	0° $\mathcal{Z}$			-1392 Jan 05 j 07:43	0° $\approx$	
retrograde	-1398 Mar 23 j 17:22	1° $\mathcal{Z}$ 11'32		evening set	-1392 Jan 18 j 18:22	1° $\approx$ 37'02	
	-1398 May 02 j 10:55	30° $\mathbb{R}$ $\mathbb{M}$					
opposition	-1398 Jun 02 j 17:03	27° $\mathbb{M}$ 53'18	1°15'35	conjunction	-1392 Feb 04 j 20:36	3° $\approx$ 45'14	-1°-30'-22
min. Earth dist.	-1398 Jun 03 j 02:09	27° $\mathbb{M}$ 51'38	9.07956 AU	minimum elong	-1392 Feb 04 j 20:33	3° $\approx$ 45'13	1°30'23
direct	-1398 Aug 12 j 07:02	24° $\mathbb{M}$ 35'38		max. Earth dist.	-1392 Feb 04 j 12:18	3° $\approx$ 42'38	10.42329 AU
	-1398 Nov 06 j 13:47	0° $\mathcal{Z}$		morning rise	-1392 Feb 22 j 03:46	5° $\approx$ 55'01	
evening set	-1398 Nov 20 j 07:42	1° $\mathcal{Z}$ 32'55		retrograde	-1392 Jun 07 j 19:32	13° $\approx$ 54'15	
				opposition	-1392 Aug 16 j 09:36	10° $\approx$ 26'58	-2°-6'-40
conjunction	-1398 Dec 06 j 21:20	3° $\mathcal{Z}$ 29'34	0°49'10	min. Earth dist.	-1392 Aug 16 j 14:44	10° $\approx$ 25'57	8.35330 AU
minimum elong	-1398 Dec 06 j 21:22	3° $\mathcal{Z}$ 29'35	0°49'08	direct	-1392 Oct 22 j 15:16	7° $\approx$ 04'25	
max. Earth dist.	-1398 Dec 06 j 10:02	3° $\mathcal{Z}$ 26'14	11.04099 AU	evening set	-1391 Jan 31 j 04:18	14° $\approx$ 44'28	
morning rise	-1398 Dec 23 j 12:32	5° $\mathcal{Z}$ 26'45			-1391 Feb 02 j 05:56	15° $\approx$	
retrograde	-1397 Apr 04 j 20:06	12° $\mathcal{Z}$ 34'26					
opposition	-1397 Jun 14 j 21:09	9° $\mathcal{Z}$ 15'02	0°43'29	conjunction	-1391 Feb 17 j 09:58	16° $\approx$ 55'35	-1°-52'-22
min. Earth dist.	-1397 Jun 15 j 07:08	9° $\mathcal{Z}$ 13'12	8.99673 AU	minimum elong	-1391 Feb 17 j 09:55	16° $\approx$ 55'35	1°52'24
direct	-1397 Aug 23 j 22:45	5° $\mathcal{Z}$ 57'11		max. Earth dist.	-1391 Feb 17 j 04:06	16° $\approx$ 53'43	10.28513 AU
evening set	-1397 Dec 01 j 17:22	12° $\mathcal{Z}$ 57'47		morning rise	-1391 Mar 06 j 20:48	19° $\approx$ 08'22	
				retrograde	-1391 Jun 22 j 02:11	27° $\approx$ 18'44	
conjunction	-1397 Dec 18 j 08:46	14° $\mathcal{Z}$ 56'05	0°21'49	opposition	-1391 Aug 30 j 04:49	23° $\approx$ 49'58	-2°-31'-7
minimum elong	-1397 Dec 18 j 08:47	14° $\mathcal{Z}$ 56'05	0°21'47	min. Earth dist.	-1391 Aug 30 j 07:59	23° $\approx$ 49'20	8.22080 AU
max. Earth dist.	-1397 Dec 17 j 20:37	14° $\mathcal{Z}$ 52'28	10.94767 AU	direct	-1391 Nov 04 j 23:43	20° $\approx$ 25'59	
morning rise	-1396 Jan 04 j 02:44	16° $\mathcal{Z}$ 55'11		evening set	-1390 Feb 14 j 02:39	28° $\approx$ 16'30	
retrograde	-1396 Apr 16 j 06:20	24° $\mathcal{Z}$ 10'54			-1390 Feb 27 j 13:42	0° $\mathbb{H}$	
opposition	-1396 Jun 26 j 05:45	20° $\mathcal{Z}$ 50'08	0°08'57				
min. Earth dist.	-1396 Jun 26 j 16:08	20° $\mathcal{Z}$ 48'12	8.89276 AU	conjunction	-1390 Mar 03 j 12:12	0° $\mathbb{H}$ 30'33	-2°-8'-48
direct	-1396 Sep 03 j 20:00	17° $\mathcal{Z}$ 31'46		minimum elong	-1390 Mar 03 j 12:10	0° $\mathbb{H}$ 30'33	2°08'50
desc. node	-1396 Sep 29 j 09:51	18° $\mathcal{Z}$ 04'59		max. Earth dist.	-1390 Mar 03 j 09:52	0° $\mathbb{H}$ 29'48	10.15901 AU
evening set	-1396 Dec 12 j 09:29	24° $\mathcal{Z}$ 37'21		morning rise	-1390 Mar 21 j 02:43	2° $\mathbb{H}$ 46'13	
				retrograde	-1390 Jul 06 j 16:41	11° $\mathbb{H}$ 06'18	
conjunction	-1396 Dec 29 j 03:12	26° $\mathcal{Z}$ 37'43	0°-7'-3	opposition	-1390 Sep 13 j 06:36	7° $\mathbb{H}$ 36'16	-2°-47'-44
minimum elong	-1396 Dec 29 j 03:11	26° $\mathcal{Z}$ 37'42	0°07'05	min. Earth dist.	-1390 Sep 13 j 07:08	7° $\mathbb{H}$ 36'10	8.10412 AU
behind sun begin	-1396 Dec 28 j 20:41	26° $\mathcal{Z}$ 35'46		direct	-1390 Nov 18 j 16:43	4° $\mathbb{H}$ 10'51	
behind sun end	-1396 Dec 29 j 09:40	26° $\mathcal{Z}$ 39'39		evening set	-1389 Feb 28 j 12:52	12° $\mathbb{H}$ 11'24	
max. Earth dist.	-1396 Dec 28 j 15:32	26° $\mathcal{Z}$ 34'12	10.83444 AU				
morning rise	-1395 Jan 15 j 00:06	28° $\mathcal{Z}$ 39'05		conjunction	-1389 Mar 18 j 02:37	14° $\mathbb{H}$ 28'15	-2°-18'-10
	-1395 Jan 26 j 15:23	0° $\mathcal{Z}$		minimum elong	-1389 Mar 18 j 02:37	14° $\mathbb{H}$ 28'15	2°18'12
retrograde	-1395 Apr 29 j 01:23	6° $\mathcal{Z}$ 04'19		max. Earth dist.	-1389 Mar 18 j 04:03	14° $\mathbb{H}$ 28'43	10.05232 AU
opposition	-1395 Jul 08 j 20:12	2° $\mathcal{Z}$ 42'01	0°-26'-50	morning rise	-1389 Apr 04 j 20:50	16° $\mathbb{H}$ 46'35	
min. Earth dist.	-1395 Jul 09 j 05:49	2° $\mathcal{Z}$ 40'12	8.77075 AU	retrograde	-1389 Jul 21 j 13:17	25° $\mathbb{H}$ 13'58	
	-1395 Aug 19 j 14:49	30° $\mathbb{R}$ $\mathcal{Z}$		opposition	-1389 Sep 27 j 13:56	21° $\mathbb{H}$ 43'03	-2°-54'-46
direct	-1395 Sep 15 j 20:48	29° $\mathcal{Z}$ 22'57		min. Earth dist.	-1389 Sep 27 j 11:29	21° $\mathbb{H}$ 43'33	8.01013 AU

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Attention, astronomical year style is used: The year -1389 in astronomical counting style is the year 1390 BCE in historical counting style.

direct	-1389 Dec 02 j 17:18	18° $\text{K}$ 16'16		conjunction	-1382 Jul 01 j 01:07	25° $\text{II}$ 03'44	0°02'51
evening set	-1388 Mar 14 j 09:29	26° $\text{K}$ 25'39		minimum elong	-1382 Jul 01 j 01:06	25° $\text{II}$ 03'44	0°02'52
				behind sun begin	-1382 Jun 30 j 17:48	25° $\text{II}$ 01'25	
conjunction	-1388 Apr 01 j 03:29	28° $\text{K}$ 44'57	-2°-19'-22	behind sun end	-1382 Jul 01 j 08:23	25° $\text{II}$ 06'02	
minimum elong	-1388 Apr 01 j 03:30	28° $\text{K}$ 44'57	2°19'24	max. Earth dist.	-1382 Jul 01 j 13:27	25° $\text{II}$ 07'40	10.18108 AU
max. Earth dist.	-1388 Apr 01 j 08:23	28° $\text{K}$ 46'34	9.97169 AU	morning rise	-1382 Jul 18 j 23:55	27° $\text{II}$ 20'36	
	-1388 Apr 10 j 15:46	0° $\text{Y}$			-1382 Aug 10 j 02:34	0° $\text{S}$	
morning rise	-1388 Apr 19 j 01:13	1° $\text{Y}$ 05'30		retrograde	-1382 Oct 28 j 23:17	5° $\text{S}$ 11'36	
retrograde	-1388 Aug 04 j 13:40	9° $\text{Y}$ 37'04		opposition	-1381 Jan 03 j 14:57	1° $\text{S}$ 46'23	0°23'47
opposition	-1388 Oct 11 j 01:08	6° $\text{Y}$ 05'42	-2°-51'-3	min. Earth dist.	-1381 Jan 03 j 04:56	1° $\text{S}$ 48'25	8.24258 AU
min. Earth dist.	-1388 Oct 10 j 20:05	6° $\text{Y}$ 06'45	7.94482 AU		-1381 Jan 26 j 14:38	30° $\text{R}$ $\text{II}$	
direct	-1388 Dec 16 j 01:13	2° $\text{Y}$ 37'42		direct	-1381 Mar 13 j 02:25	28° $\text{II}$ 17'13	
evening set	-1387 Mar 29 j 14:12	10° $\text{Y}$ 53'57			-1381 Apr 27 j 02:13	0° $\text{S}$	
				evening set	-1381 Jun 27 j 09:56	6° $\text{S}$ 20'22	
conjunction	-1387 Apr 16 j 12:18	13° $\text{Y}$ 15'11	-2°-11'-52	conjunction	-1381 Jul 15 j 08:27	8° $\text{S}$ 35'20	0°35'34
minimum elong	-1387 Apr 16 j 12:21	13° $\text{Y}$ 15'12	2°11'53	minimum elong	-1381 Jul 15 j 08:25	8° $\text{S}$ 35'19	0°35'35
max. Earth dist.	-1387 Apr 16 j 20:13	13° $\text{Y}$ 17'48	9.92255 AU	max. Earth dist.	-1381 Jul 15 j 20:17	8° $\text{S}$ 39'03	10.30914 AU
morning rise	-1387 May 04 j 13:14	15° $\text{Y}$ 37'22		morning rise	-1381 Aug 02 j 02:31	10° $\text{S}$ 48'53	
retrograde	-1387 Aug 19 j 14:01	24° $\text{Y}$ 09'27		retrograde	-1381 Nov 11 j 03:55	18° $\text{S}$ 28'28	
opposition	-1387 Oct 25 j 14:20	20° $\text{Y}$ 38'06	-2°-36'-20	opposition	-1380 Jan 17 j 01:54	15° $\text{S}$ 05'03	1°02'48
min. Earth dist.	-1387 Oct 25 j 07:17	20° $\text{Y}$ 39'35	7.91261 AU	min. Earth dist.	-1380 Jan 16 j 16:53	15° $\text{S}$ 06'51	8.37681 AU
direct	-1387 Dec 30 j 16:04	17° $\text{Y}$ 09'04		direct	-1380 Mar 26 j 04:27	11° $\text{S}$ 36'50	
evening set	-1386 Apr 14 j 00:00	25° $\text{Y}$ 29'40		evening set	-1380 Jul 10 j 09:45	19° $\text{S}$ 31'24	
conjunction	-1386 May 02 j 01:40	27° $\text{Y}$ 52'07	-1°-55'-53	conjunction	-1380 Jul 28 j 03:26	21° $\text{S}$ 42'57	1°05'35
minimum elong	-1386 May 02 j 01:44	27° $\text{Y}$ 52'08	1°55'53	minimum elong	-1380 Jul 28 j 03:23	21° $\text{S}$ 42'56	1°05'36
max. Earth dist.	-1386 May 02 j 11:48	27° $\text{Y}$ 55'28	9.90820 AU	max. Earth dist.	-1380 Jul 28 j 13:50	21° $\text{S}$ 46'11	10.44755 AU
	-1386 May 18 j 06:28	0° $\text{S}$		morning rise	-1380 Aug 14 j 16:05	23° $\text{S}$ 52'58	
morning rise	-1386 May 20 j 05:03	0° $\text{S}$ 15'07			-1380 Oct 14 j 16:47	0° $\text{S}$	
retrograde	-1386 Sep 03 j 10:51	8° $\text{S}$ 43'59		retrograde	-1380 Nov 23 j 00:16	1° $\text{S}$ 21'44	
opposition	-1386 Nov 09 j 03:20	5° $\text{S}$ 13'09	-2°-11'-29		-1379 Jan 02 j 01:05	30° $\text{R}$ $\text{S}$	
min. Earth dist.	-1386 Nov 08 j 19:08	5° $\text{S}$ 14'52	7.91565 AU	opposition	-1379 Jan 29 j 05:37	28° $\text{S}$ 00'03	1°37'21
direct	-1385 Jan 14 j 10:55	1° $\text{S}$ 43'22		min. Earth dist.	-1379 Jan 28 j 22:28	28° $\text{S}$ 01'28	8.51796 AU
evening set	-1385 Apr 29 j 11:37	10° $\text{S}$ 05'29		direct	-1379 Apr 08 j 21:35	24° $\text{S}$ 33'00	
conjunction	-1385 May 17 j 15:45	12° $\text{S}$ 28'14	-1°-32'-30		-1379 Jul 04 j 00:02	0° $\text{S}$	
minimum elong	-1385 May 17 j 15:49	12° $\text{S}$ 28'15	1°32'30	evening set	-1379 Jul 23 j 22:07	2° $\text{S}$ 18'30	
max. Earth dist.	-1385 May 18 j 03:13	12° $\text{S}$ 32'01	9.92950 AU	conjunction	-1379 Aug 10 j 10:18	4° $\text{S}$ 26'35	1°31'31
morning rise	-1385 Jun 04 j 20:20	14° $\text{S}$ 51'06		minimum elong	-1379 Aug 10 j 10:15	4° $\text{S}$ 26'34	1°31'32
	-1385 Jun 06 j 00:00	15° $\text{S}$		max. Earth dist.	-1379 Aug 10 j 18:01	4° $\text{S}$ 28'57	10.58893 AU
retrograde	-1385 Sep 18 j 02:02	23° $\text{S}$ 13'25		morning rise	-1379 Aug 27 j 17:23	6° $\text{S}$ 23'06	
opposition	-1385 Nov 23 j 13:56	19° $\text{S}$ 43'33	-1°-38'-19	retrograde	-1379 Dec 05 j 10:27	13° $\text{S}$ 51'59	
min. Earth dist.	-1385 Nov 23 j 05:01	19° $\text{S}$ 45'25	7.95374 AU	opposition	-1378 Feb 11 j 02:12	10° $\text{S}$ 31'56	2°06'04
direct	-1384 Jan 29 j 07:04	16° $\text{S}$ 13'22		min. Earth dist.	-1378 Feb 10 j 21:13	10° $\text{S}$ 32'54	8.65871 AU
evening set	-1384 May 13 j 21:21	24° $\text{S}$ 34'07		direct	-1378 Apr 22 j 07:45	7° $\text{S}$ 06'08	
conjunction	-1384 Jun 01 j 02:31	26° $\text{S}$ 56'12	-1°-3'-27	evening set	-1378 Aug 05 j 22:52	14° $\text{S}$ 42'36	
minimum elong	-1384 Jun 01 j 02:34	26° $\text{S}$ 56'13	1°03'27		-1378 Aug 08 j 09:26	15° $\text{S}$	
max. Earth dist.	-1384 Jun 01 j 14:47	27° $\text{S}$ 00'13	9.98496 AU	conjunction	-1378 Aug 23 j 05:29	16° $\text{S}$ 47'20	1°52'28
morning rise	-1384 Jun 19 j 06:47	29° $\text{S}$ 17'55		minimum elong	-1378 Aug 23 j 05:26	16° $\text{S}$ 47'19	1°52'29
	-1384 Jun 24 j 19:12	0° $\text{II}$		max. Earth dist.	-1378 Aug 23 j 10:06	16° $\text{S}$ 48'44	10.72635 AU
retrograde	-1384 Oct 01 j 09:51	7° $\text{II}$ 31'09		morning rise	-1378 Sep 09 j 07:13	18° $\text{S}$ 50'33	
opposition	-1384 Dec 06 j 20:21	4° $\text{II}$ 02'36	0°-59'-26	retrograde	-1378 Dec 17 j 12:51	26° $\text{S}$ 00'53	
min. Earth dist.	-1384 Dec 06 j 10:44	4° $\text{II}$ 04'36	8.02435 AU	opposition	-1377 Feb 23 j 16:30	22° $\text{S}$ 42'12	2°28'10
direct	-1383 Feb 12 j 01:29	0° $\text{II}$ 32'23		min. Earth dist.	-1377 Feb 23 j 13:06	22° $\text{S}$ 42'51	8.79229 AU
evening set	-1383 May 29 j 01:52	8° $\text{II}$ 49'10		direct	-1377 May 05 j 10:45	19° $\text{S}$ 17'44	
conjunction	-1383 Jun 16 j 06:27	11° $\text{II}$ 09'38	0°-30'-55	evening set	-1377 Aug 18 j 12:21	26° $\text{S}$ 45'26	
minimum elong	-1383 Jun 16 j 06:28	11° $\text{II}$ 09'39	0°30'56	conjunction	-1377 Sep 04 j 13:52	28° $\text{S}$ 47'08	2°07'54
max. Earth dist.	-1383 Jun 16 j 19:02	11° $\text{II}$ 13'43	10.07074 AU	minimum elong	-1377 Sep 04 j 13:49	28° $\text{S}$ 47'08	2°07'55
morning rise	-1383 Jul 04 j 08:48	13° $\text{II}$ 29'19		max. Earth dist.	-1377 Sep 04 j 16:05	28° $\text{S}$ 47'48	10.85345 AU
retrograde	-1383 Oct 15 j 09:32	21° $\text{II}$ 31'49			-1377 Sep 14 j 17:50	0° $\text{np}$	
opposition	-1383 Dec 20 j 21:02	18° $\text{II}$ 04'51	0°-17'-47	morning rise	-1377 Sep 21 j 10:41	0° $\text{np}$ 47'27	
min. Earth dist.	-1383 Dec 20 j 10:59	18° $\text{II}$ 06'54	8.12272 AU	retrograde	-1377 Dec 29 j 11:22	7° $\text{np}$ 50'43	
direct	-1382 Feb 26 j 16:49	14° $\text{II}$ 34'58		opposition	-1376 Mar 07 j 01:03	4° $\text{np}$ 33'06	2°43'17
asc. node	-1382 May 30 j 13:34	21° $\text{II}$ 07'11		min. Earth dist.	-1376 Mar 06 j 23:15	4° $\text{np}$ 33'26	8.91253 AU
evening set	-1382 Jun 12 j 22:49	22° $\text{II}$ 45'43					

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 3

Attention, astronomical year style is used: The year -1376 in astronomical counting style is the year 1377 BCE in historical counting style.

direct	-1376 May 17 j 04:28	1° $\mathring{\text{M}}$ 09'58		min. Earth dist.	-1370 May 17 j 02:37	11° $\mathring{\text{M}}$ 52'46	9.14640 AU
evening set	-1376 Aug 29 j 15:56	8° $\mathring{\text{M}}$ 29'33		direct	-1370 Jul 26 j 19:00	8° $\mathring{\text{M}}$ 36'21	
					-1370 Oct 30 j 18:54	15° $\mathring{\text{M}}$	
conjunction	-1376 Sep 15 j 13:01	10° $\mathring{\text{M}}$ 28'42	2°17'36	evening set	-1370 Nov 04 j 12:19	15° $\mathring{\text{M}}$ 32'14	
minimum elong	-1376 Sep 15 j 12:59	10° $\mathring{\text{M}}$ 28'42	2°17'37				
max. Earth dist.	-1376 Sep 15 j 13:16	10° $\mathring{\text{M}}$ 28'47	10.96447 AU	conjunction	-1370 Nov 21 j 00:09	17° $\mathring{\text{M}}$ 27'19	1°24'33
morning rise	-1376 Oct 02 j 05:39	12° $\mathring{\text{M}}$ 26'35		minimum elong	-1370 Nov 21 j 00:12	17° $\mathring{\text{M}}$ 27'20	1°24'33
retrograde	-1375 Jan 09 j 03:47	19° $\mathring{\text{M}}$ 24'17		max. Earth dist.	-1370 Nov 20 j 12:03	17° $\mathring{\text{M}}$ 23'47	11.12292 AU
opposition	-1375 Mar 19 j 04:43	16° $\mathring{\text{M}}$ 07'31	2°51'22	morning rise	-1370 Dec 07 j 12:25	19° $\mathring{\text{M}}$ 22'35	
min. Earth dist.	-1375 Mar 19 j 05:31	16° $\mathring{\text{M}}$ 07'22	9.01398 AU	retrograde	-1369 Mar 18 j 15:55	26° $\mathring{\text{M}}$ 21'40	
direct	-1375 May 29 j 13:32	12° $\mathring{\text{M}}$ 45'37		opposition	-1369 May 28 j 15:53	23° $\mathring{\text{M}}$ 03'29	1°29'06
evening set	-1375 Sep 10 j 11:03	19° $\mathring{\text{M}}$ 58'08		min. Earth dist.	-1369 May 29 j 02:41	23° $\mathring{\text{M}}$ 01'30	9.09454 AU
				direct	-1369 Aug 07 j 10:31	19° $\mathring{\text{M}}$ 45'17	
conjunction	-1375 Sep 27 j 04:23	21° $\mathring{\text{M}}$ 55'14	2°21'34	evening set	-1369 Nov 15 j 15:41	26° $\mathring{\text{M}}$ 42'09	
minimum elong	-1375 Sep 27 j 04:23	21° $\mathring{\text{M}}$ 55'14	2°21'34				
max. Earth dist.	-1375 Sep 27 j 01:42	21° $\mathring{\text{M}}$ 54'27	11.05451 AU	conjunction	-1369 Dec 02 j 04:45	28° $\mathring{\text{M}}$ 38'20	1°00'50
morning rise	-1375 Oct 13 j 17:51	23° $\mathring{\text{M}}$ 51'16		minimum elong	-1369 Dec 02 j 04:47	28° $\mathring{\text{M}}$ 38'21	1°00'49
	-1375 Dec 21 j 15:37	0° $\mathring{\text{A}}$		max. Earth dist.	-1369 Dec 01 j 16:38	28° $\mathring{\text{M}}$ 34'46	11.05940 AU
retrograde	-1374 Jan 20 j 17:29	0° $\mathring{\text{A}}$ 45'07			-1369 Dec 13 j 18:36	0° $\mathring{\text{A}}$	
	-1374 Feb 20 j 08:10	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		morning rise	-1369 Dec 18 j 19:01	0° $\mathring{\text{A}}$ 34'57	
opposition	-1374 Mar 31 j 05:01	27° $\mathring{\text{M}}$ 28'55	2°52'33	retrograde	-1368 Mar 29 j 16:06	7° $\mathring{\text{A}}$ 39'56	
min. Earth dist.	-1374 Mar 31 j 08:55	27° $\mathring{\text{M}}$ 28'11	9.09250 AU	opposition	-1368 Jun 08 j 18:09	4° $\mathring{\text{A}}$ 20'32	0°58'25
direct	-1374 Jun 10 j 17:51	24° $\mathring{\text{M}}$ 08'08		min. Earth dist.	-1368 Jun 09 j 04:34	4° $\mathring{\text{A}}$ 18'36	9.01891 AU
	-1374 Sep 10 j 20:41	0° $\mathring{\text{A}}$		direct	-1368 Aug 18 j 02:56	1° $\mathring{\text{A}}$ 02'10	
evening set	-1374 Sep 21 j 23:08	1° $\mathring{\text{A}}$ 14'44		evening set	-1368 Nov 25 j 22:59	8° $\mathring{\text{A}}$ 01'39	
conjunction	-1374 Oct 08 j 13:31	3° $\mathring{\text{A}}$ 10'21	2°19'58	conjunction	-1368 Dec 12 j 13:45	9° $\mathring{\text{A}}$ 59'21	0°34'26
minimum elong	-1374 Oct 08 j 13:32	3° $\mathring{\text{A}}$ 10'21	2°19'57	minimum elong	-1368 Dec 12 j 13:46	9° $\mathring{\text{A}}$ 59'22	0°34'23
max. Earth dist.	-1374 Oct 08 j 07:24	3° $\mathring{\text{A}}$ 08'34	11.12046 AU	max. Earth dist.	-1368 Dec 12 j 02:12	9° $\mathring{\text{A}}$ 55'56	10.97316 AU
morning rise	-1374 Oct 25 j 00:58	5° $\mathring{\text{A}}$ 05'08		morning rise	-1368 Dec 29 j 06:21	11° $\mathring{\text{A}}$ 57'42	
retrograde	-1373 Feb 01 j 04:30	11° $\mathring{\text{A}}$ 56'49		retrograde	-1367 Apr 11 j 00:42	19° $\mathring{\text{A}}$ 10'10	
opposition	-1373 Apr 12 j 02:51	8° $\mathring{\text{A}}$ 40'51	2°47'11	opposition	-1367 Jun 21 j 00:39	15° $\mathring{\text{A}}$ 49'24	0°24'49
min. Earth dist.	-1373 Apr 12 j 08:45	8° $\mathring{\text{A}}$ 39'45	9.14580 AU	min. Earth dist.	-1367 Jun 21 j 10:24	15° $\mathring{\text{A}}$ 47'35	8.92202 AU
direct	-1373 Jun 22 j 16:42	5° $\mathring{\text{A}}$ 21'03		direct	-1367 Aug 29 j 21:52	12° $\mathring{\text{A}}$ 30'40	
evening set	-1373 Oct 03 j 05:57	12° $\mathring{\text{A}}$ 22'56		evening set	-1367 Dec 07 j 12:05	19° $\mathring{\text{A}}$ 34'25	
conjunction	-1373 Oct 19 j 18:30	14° $\mathring{\text{A}}$ 17'38	2°13'03	conjunction	-1367 Dec 24 j 04:48	21° $\mathring{\text{A}}$ 34'00	0°06'11
minimum elong	-1373 Oct 19 j 18:32	14° $\mathring{\text{A}}$ 17'39	2°13'03	minimum elong	-1367 Dec 24 j 04:48	21° $\mathring{\text{A}}$ 34'00	0°06'09
max. Earth dist.	-1373 Oct 19 j 10:35	14° $\mathring{\text{A}}$ 15'20	11.16080 AU	behind sun begin	-1367 Dec 23 j 22:08	21° $\mathring{\text{A}}$ 32'02	
morning rise	-1373 Nov 05 j 04:51	16° $\mathring{\text{A}}$ 11'45		behind sun end	-1367 Dec 24 j 11:27	21° $\mathring{\text{A}}$ 35'59	
retrograde	-1372 Feb 12 j 16:36	23° $\mathring{\text{A}}$ 02'54		max. Earth dist.	-1367 Dec 23 j 17:03	21° $\mathring{\text{A}}$ 30'29	10.86727 AU
opposition	-1372 Apr 22 j 23:12	19° $\mathring{\text{A}}$ 46'48	2°35'38	morning rise	-1366 Jan 10 j 00:18	23° $\mathring{\text{A}}$ 34'31	
min. Earth dist.	-1372 Apr 23 j 06:13	19° $\mathring{\text{A}}$ 45'31	9.17277 AU	desc. node	-1366 Mar 13 j 19:21	29° $\mathring{\text{A}}$ 36'02	
direct	-1372 Jul 03 j 13:01	16° $\mathring{\text{A}}$ 27'45			-1366 Mar 20 j 15:19	0° $\mathring{\text{B}}$	
evening set	-1372 Oct 13 j 09:10	23° $\mathring{\text{A}}$ 26'14		retrograde	-1366 Apr 23 j 16:09	0° $\mathring{\text{B}}$ 55'53	
					-1366 May 28 j 04:37	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
conjunction	-1372 Oct 29 j 20:53	25° $\mathring{\text{A}}$ 20'35	2°01'13	opposition	-1366 Jul 03 j 12:42	27° $\mathring{\text{A}}$ 33'39	0°-10'-35
minimum elong	-1372 Oct 29 j 20:55	25° $\mathring{\text{A}}$ 20'35	2°01'13	min. Earth dist.	-1366 Jul 03 j 22:08	27° $\mathring{\text{A}}$ 31'52	8.80745 AU
max. Earth dist.	-1372 Oct 29 j 12:01	25° $\mathring{\text{A}}$ 18'00	11.17464 AU	direct	-1366 Sep 10 j 18:42	24° $\mathring{\text{A}}$ 14'18	
morning rise	-1372 Nov 15 j 06:56	27° $\mathring{\text{A}}$ 14'32			-1366 Dec 07 j 08:24	0° $\mathring{\text{B}}$	
	-1372 Dec 10 j 20:30	0° $\mathring{\text{M}}$		evening set	-1366 Dec 19 j 08:37	1° $\mathring{\text{B}}$ 23'58	
retrograde	-1371 Feb 23 j 06:08	4° $\mathring{\text{M}}$ 06'43					
opposition	-1371 May 04 j 19:25	0° $\mathring{\text{M}}$ 50'13	2°18'23	conjunction	-1365 Jan 05 j 03:40	3° $\mathring{\text{B}}$ 25'46	0°-23'-2
min. Earth dist.	-1371 May 05 j 03:38	0° $\mathring{\text{M}}$ 48'42	9.17286 AU	minimum elong	-1365 Jan 05 j 03:39	3° $\mathring{\text{B}}$ 25'45	0°23'05
	-1371 May 16 j 09:15	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		max. Earth dist.	-1365 Jan 04 j 16:07	3° $\mathring{\text{B}}$ 22'15	10.74560 AU
direct	-1371 Jul 15 j 04:32	27° $\mathring{\text{A}}$ 31'43		morning rise	-1365 Jan 22 j 02:27	5° $\mathring{\text{B}}$ 28'44	
	-1371 Sep 10 j 03:23	0° $\mathring{\text{M}}$		retrograde	-1365 May 06 j 14:51	13° $\mathring{\text{B}}$ 00'19	
evening set	-1371 Oct 24 j 10:42	4° $\mathring{\text{M}}$ 28'08		opposition	-1365 Jul 16 j 06:58	9° $\mathring{\text{B}}$ 36'31	0°-46'-34
				min. Earth dist.	-1365 Jul 16 j 15:52	9° $\mathring{\text{B}}$ 34'49	8.67954 AU
conjunction	-1371 Nov 09 j 22:07	6° $\mathring{\text{M}}$ 22'36	1°44'53	direct	-1365 Sep 22 j 23:55	6° $\mathring{\text{B}}$ 16'21	
minimum elong	-1371 Nov 09 j 22:10	6° $\mathring{\text{M}}$ 22'37	1°44'52	evening set	-1365 Dec 31 j 14:30	13° $\mathring{\text{B}}$ 33'29	
max. Earth dist.	-1371 Nov 09 j 11:36	6° $\mathring{\text{M}}$ 19'32	11.16176 AU				
morning rise	-1371 Nov 26 j 08:52	8° $\mathring{\text{M}}$ 16'58		conjunction	-1364 Jan 17 j 12:19	15° $\mathring{\text{B}}$ 37'49	0°-51'-54
	-1370 Feb 19 j 06:55	15° $\mathring{\text{M}}$		minimum elong	-1364 Jan 17 j 12:17	15° $\mathring{\text{B}}$ 37'48	0°51'55
retrograde	-1370 Mar 06 j 20:48	15° $\mathring{\text{M}}$ 11'48		max. Earth dist.	-1364 Jan 17 j 02:26	15° $\mathring{\text{B}}$ 34'46	10.61281 AU
	-1370 Mar 22 j 13:39	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$		morning rise	-1364 Feb 03 j 14:24	17° $\mathring{\text{B}}$ 43'29	
opposition	-1370 May 16 j 16:40	11° $\mathring{\text{M}}$ 54'35	1°56'00	retrograde	-1364 May 19 j 00:17	25° $\mathring{\text{B}}$ 26'14	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 4

Attention, astronomical year style is used: The year -1364 in astronomical counting style is the year 1365 BCE in historical counting style.

opposition	-1364 Jul 28 j 07:59	22° $\text{♁}$ 00'50	-1°-21'-32	max. Earth dist.	-1358 Apr 10 j 06:47	7° $\text{♁}$ 02'46	9.94987 AU
min. Earth dist.	-1364 Jul 28 j 15:20	21° $\text{♁}$ 59'25	8.54353 AU	morning rise	-1358 Apr 27 j 23:36	9° $\text{♁}$ 21'58	
direct	-1364 Oct 04 j 11:17	18° $\text{♁}$ 39'42		retrograde	-1358 Aug 13 j 07:04	17° $\text{♁}$ 54'06	
evening set	-1363 Jan 12 j 07:05	26° $\text{♁}$ 05'39		opposition	-1358 Oct 19 j 12:07	14° $\text{♁}$ 23'15	-2°-44'-1
				min. Earth dist.	-1358 Oct 19 j 05:52	14° $\text{♁}$ 24'33	7.93416 AU
conjunction	-1363 Jan 29 j 07:59	28° $\text{♁}$ 12'42	-1°-19'-5	direct	-1358 Dec 24 j 13:04	10° $\text{♁}$ 55'12	
minimum elong	-1363 Jan 29 j 07:56	28° $\text{♁}$ 12'41	1°19'06	evening set	-1357 Apr 07 j 11:57	19° $\text{♁}$ 13'52	
max. Earth dist.	-1363 Jan 29 j 00:40	28° $\text{♁}$ 10'24	10.47467 AU				
	-1363 Feb 12 j 16:18	0° $\text{♁}$		conjunction	-1357 Apr 25 j 12:02	21° $\text{♁}$ 35'43	-2°-3'-52
morning rise	-1363 Feb 15 j 13:26	0° $\text{♁}$ 21'15		minimum elong	-1357 Apr 25 j 12:05	21° $\text{♁}$ 35'44	2°03'53
retrograde	-1363 Jun 01 j 20:10	8° $\text{♁}$ 15'39		max. Earth dist.	-1357 Apr 25 j 21:45	21° $\text{♁}$ 38'56	9.92330 AU
opposition	-1363 Aug 10 j 16:35	4° $\text{♁}$ 48'43	-1°-53'-41	morning rise	-1357 May 13 j 14:26	23° $\text{♁}$ 58'18	
min. Earth dist.	-1363 Aug 10 j 21:23	4° $\text{♁}$ 47'46	8.40563 AU		-1357 Jul 06 j 02:45	0° $\text{♁}$	
direct	-1363 Oct 17 j 05:05	1° $\text{♁}$ 26'30		retrograde	-1357 Aug 28 j 04:50	2° $\text{♁}$ 28'39	
evening set	-1362 Jan 25 j 11:29	9° $\text{♁}$ 02'15			-1357 Oct 21 j 12:20	30° $\text{♁}$	
				opposition	-1357 Nov 03 j 01:31	28° $\text{♁}$ 58'07	-2°-23'-31
conjunction	-1362 Feb 11 j 15:41	11° $\text{♁}$ 12'10	-1°-43'-3	min. Earth dist.	-1357 Nov 02 j 17:22	28° $\text{♁}$ 59'49	7.92420 AU
minimum elong	-1362 Feb 11 j 15:38	11° $\text{♁}$ 12'09	1°43'04	direct	-1356 Jan 08 j 06:28	25° $\text{♁}$ 29'15	
max. Earth dist.	-1362 Feb 11 j 10:55	11° $\text{♁}$ 10'39	10.33790 AU		-1356 Mar 21 j 06:25	0° $\text{♁}$	
morning rise	-1362 Mar 01 j 00:42	13° $\text{♁}$ 23'40		evening set	-1356 Apr 21 j 23:02	3° $\text{♁}$ 50'28	
	-1362 Mar 14 j 05:21	15° $\text{♁}$					
retrograde	-1362 Jun 16 j 00:20	21° $\text{♁}$ 29'32		conjunction	-1356 May 10 j 02:11	6° $\text{♁}$ 13'00	-1°-43'-37
opposition	-1362 Aug 24 j 08:44	18° $\text{♁}$ 01'12	-2°-20'-58	minimum elong	-1356 May 10 j 02:15	6° $\text{♁}$ 13'02	1°43'38
min. Earth dist.	-1362 Aug 24 j 11:00	18° $\text{♁}$ 00'44	8.27283 AU	max. Earth dist.	-1356 May 10 j 13:59	6° $\text{♁}$ 16'54	9.93053 AU
	-1362 Oct 10 j 04:52	15° $\text{♁}$		morning rise	-1356 May 28 j 06:15	8° $\text{♁}$ 35'50	
direct	-1362 Oct 30 j 08:26	14° $\text{♁}$ 37'48			-1356 Jul 25 j 12:35	15° $\text{♁}$	
	-1362 Nov 19 j 07:41	15° $\text{♁}$		retrograde	-1356 Sep 10 j 23:00	17° $\text{♁}$ 01'00	
evening set	-1361 Feb 08 j 04:32	22° $\text{♁}$ 23'54			-1356 Oct 29 j 05:18	15° $\text{♁}$	
				opposition	-1356 Nov 16 j 13:20	13° $\text{♁}$ 31'13	-1°-53'-48
conjunction	-1361 Feb 25 j 12:18	24° $\text{♁}$ 36'43	-2°-2'-10	min. Earth dist.	-1356 Nov 16 j 03:59	13° $\text{♁}$ 33'10	7.94725 AU
minimum elong	-1361 Feb 25 j 12:15	24° $\text{♁}$ 36'43	2°02'11	direct	-1355 Jan 22 j 01:31	10° $\text{♁}$ 01'47	
max. Earth dist.	-1361 Feb 25 j 09:51	24° $\text{♁}$ 35'56	10.20981 AU		-1355 Apr 09 j 15:51	15° $\text{♁}$	
morning rise	-1361 Mar 15 j 01:03	26° $\text{♁}$ 51'10		evening set	-1355 May 07 j 09:55	18° $\text{♁}$ 22'53	
	-1361 Apr 10 j 07:22	0° $\text{♁}$					
retrograde	-1361 Jun 30 j 12:56	5° $\text{♁}$ 07'23		conjunction	-1355 May 25 j 14:53	20° $\text{♁}$ 45'14	-1°-16'-51
opposition	-1361 Sep 07 j 07:50	1° $\text{♁}$ 37'54	-2°-41'-19	minimum elong	-1355 May 25 j 14:57	20° $\text{♁}$ 45'16	1°16'52
min. Earth dist.	-1361 Sep 07 j 07:55	1° $\text{♁}$ 37'53	8.15249 AU	max. Earth dist.	-1355 May 26 j 03:35	20° $\text{♁}$ 49'24	9.97002 AU
	-1361 Sep 28 j 09:28	30° $\text{♁}$		morning rise	-1355 Jun 12 j 19:19	23° $\text{♁}$ 07'25	
direct	-1361 Nov 12 j 20:23	28° $\text{♁}$ 13'16			-1355 Aug 17 j 04:01	0° $\text{♁}$	
	-1361 Dec 27 j 02:33	0° $\text{♁}$		retrograde	-1355 Sep 25 j 11:33	1° $\text{♁}$ 24'41	
evening set	-1360 Feb 22 j 09:50	6° $\text{♁}$ 09'38			-1355 Nov 04 j 04:56	30° $\text{♁}$	
				opposition	-1355 Nov 30 j 21:44	27° $\text{♁}$ 56'02	-1°-17'-8
conjunction	-1360 Mar 10 j 21:29	8° $\text{♁}$ 25'16	-2°-14'-51	min. Earth dist.	-1355 Nov 30 j 12:11	27° $\text{♁}$ 58'01	8.00135 AU
minimum elong	-1360 Mar 10 j 21:27	8° $\text{♁}$ 25'16	2°14'53	direct	-1354 Feb 05 j 19:55	24° $\text{♁}$ 26'21	
max. Earth dist.	-1360 Mar 10 j 21:39	8° $\text{♁}$ 25'19	10.09792 AU		-1354 Apr 30 j 06:26	0° $\text{♁}$	
morning rise	-1360 Mar 28 j 14:03	10° $\text{♁}$ 42'28		evening set	-1354 May 22 j 17:26	2° $\text{♁}$ 44'54	
retrograde	-1360 Jul 14 j 08:06	19° $\text{♁}$ 07'06					
opposition	-1360 Sep 20 j 13:16	15° $\text{♁}$ 36'47	-2°-52'-46	conjunction	-1354 Jun 09 j 22:34	5° $\text{♁}$ 06'07	0°-45'-36
min. Earth dist.	-1360 Sep 20 j 11:25	15° $\text{♁}$ 37'10	8.05189 AU	minimum elong	-1354 Jun 09 j 22:36	5° $\text{♁}$ 06'08	0°45'36
direct	-1360 Nov 25 j 17:26	12° $\text{♁}$ 10'55		max. Earth dist.	-1354 Jun 10 j 11:13	5° $\text{♁}$ 10'13	10.03934 AU
evening set	-1359 Mar 08 j 02:07	20° $\text{♁}$ 16'37		morning rise	-1354 Jun 28 j 01:48	7° $\text{♁}$ 26'42	
				retrograde	-1354 Oct 09 j 16:30	15° $\text{♁}$ 34'07	
conjunction	-1359 Mar 25 j 17:58	22° $\text{♁}$ 34'49	-2°-19'-48	opposition	-1354 Dec 15 j 01:24	12° $\text{♁}$ 06'53	0°-36'-21
minimum elong	-1359 Mar 25 j 17:58	22° $\text{♁}$ 34'49	2°19'49	min. Earth dist.	-1354 Dec 14 j 16:11	12° $\text{♁}$ 08'47	8.08382 AU
max. Earth dist.	-1359 Mar 25 j 21:29	22° $\text{♁}$ 35'58	10.00932 AU	direct	-1353 Feb 20 j 12:55	8° $\text{♁}$ 37'16	
morning rise	-1359 Apr 12 j 14:14	24° $\text{♁}$ 54'26		evening set	-1353 Jun 06 j 18:31	16° $\text{♁}$ 50'56	
	-1359 May 26 j 10:39	0° $\text{♁}$					
retrograde	-1359 Jul 29 j 07:16	3° $\text{♁}$ 24'36		conjunction	-1353 Jun 24 j 21:59	19° $\text{♁}$ 10'07	0°-12'-8
	-1359 Oct 03 j 17:24	30° $\text{♁}$		minimum elong	-1353 Jun 24 j 22:00	19° $\text{♁}$ 10'07	0°12'09
opposition	-1359 Oct 04 j 23:23	29° $\text{♁}$ 53'49	-2°-53'-53	behind sun begin	-1353 Jun 24 j 17:09	19° $\text{♁}$ 08'34	
min. Earth dist.	-1359 Oct 04 j 19:19	29° $\text{♁}$ 54'39	7.97751 AU	behind sun end	-1353 Jun 25 j 02:51	19° $\text{♁}$ 11'39	
direct	-1359 Dec 09 j 23:26	26° $\text{♁}$ 26'47		max. Earth dist.	-1353 Jun 25 j 09:53	19° $\text{♁}$ 13'56	10.13487 AU
	-1358 Feb 11 j 14:56	0° $\text{♁}$		morning rise	-1353 Jul 12 j 22:26	21° $\text{♁}$ 28'17	
evening set	-1358 Mar 23 j 03:47	4° $\text{♁}$ 40'09		retrograde	-1353 Oct 23 j 10:48	29° $\text{♁}$ 24'39	
				asc. node	-1353 Nov 08 j 03:22	29° $\text{♁}$ 10'52	
conjunction	-1358 Apr 09 j 23:55	7° $\text{♁}$ 00'30	-2°-16'-10	opposition	-1353 Dec 28 j 22:57	25° $\text{♁}$ 59'00	0°05'36
minimum elong	-1358 Apr 09 j 23:57	7° $\text{♁}$ 00'30	2°16'11	min. Earth dist.	-1353 Dec 28 j 14:25	26° $\text{♁}$ 00'45	8.19022 AU

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 5

Attention, astronomical year style is used: The year -1352 in astronomical counting style is the year 1353 BCE in historical counting style.

direct	-1352 Mar 06 j 02:17	22° $\Pi$ 29'46		min. Earth dist.	-1346 Mar 14 j 07:11	11° $\Pi$ 19'42	8.95571 AU
	-1352 Jun 15 j 11:54	0° $\mathfrak{G}$		direct	-1346 May 24 j 13:37	7° $\Pi$ 56'45	
evening set	-1352 Jun 20 j 10:42	0° $\mathfrak{G}$ 36'40		evening set	-1346 Sep 05 j 17:35	15° $\Pi$ 12'45	
conjunction	-1352 Jul 08 j 10:56	2° $\mathfrak{G}$ 53'04	0°21'21	conjunction	-1346 Sep 22 j 12:28	17° $\Pi$ 10'50	2°20'37
minimum elong	-1352 Jul 08 j 10:55	2° $\mathfrak{G}$ 53'04	0°21'22	minimum elong	-1346 Sep 22 j 12:27	17° $\Pi$ 10'49	2°20'37
max. Earth dist.	-1352 Jul 08 j 21:25	2° $\mathfrak{G}$ 56'23	10.25117 AU	max. Earth dist.	-1346 Sep 22 j 10:42	17° $\Pi$ 10'18	11.00223 AU
morning rise	-1352 Jul 26 j 07:19	5° $\mathfrak{G}$ 08'13		morning rise	-1346 Oct 09 j 03:26	19° $\Pi$ 07'46	
retrograde	-1352 Nov 04 j 18:54	12° $\mathfrak{G}$ 53'10		retrograde	-1345 Jan 16 j 01:03	26° $\Pi$ 03'28	
opposition	-1351 Jan 10 j 13:26	9° $\mathfrak{G}$ 29'08	0°46'04	opposition	-1345 Mar 26 j 08:38	22° $\Pi$ 46'32	2°53'02
min. Earth dist.	-1351 Jan 10 j 05:38	9° $\mathfrak{G}$ 30'42	8.31436 AU	min. Earth dist.	-1345 Mar 26 j 10:01	22° $\Pi$ 46'16	9.04690 AU
direct	-1351 Mar 20 j 08:54	6° $\mathfrak{G}$ 00'31		direct	-1345 Jun 05 j 21:48	19° $\Pi$ 24'47	
evening set	-1351 Jul 04 j 16:11	13° $\mathfrak{G}$ 59'22		evening set	-1345 Sep 17 j 08:18	26° $\Pi$ 34'07	
conjunction	-1351 Jul 22 j 12:04	16° $\mathfrak{G}$ 12'32	0°52'48	conjunction	-1345 Oct 04 j 00:04	28° $\Pi$ 30'27	2°21'26
minimum elong	-1351 Jul 22 j 12:01	16° $\mathfrak{G}$ 12'32	0°52'49	minimum elong	-1345 Oct 04 j 00:04	28° $\Pi$ 30'27	2°21'25
max. Earth dist.	-1351 Jul 22 j 20:49	16° $\mathfrak{G}$ 15'17	10.38139 AU	max. Earth dist.	-1345 Oct 03 j 21:05	28° $\Pi$ 29'34	11.08256 AU
morning rise	-1351 Aug 09 j 03:25	18° $\mathfrak{G}$ 24'15			-1345 Oct 16 j 18:47	0° $\mathfrak{A}$	
retrograde	-1351 Nov 17 j 18:32	25° $\mathfrak{G}$ 58'07		morning rise	-1345 Oct 20 j 12:20	0° $\mathfrak{A}$ 25'48	
opposition	-1350 Jan 23 j 20:39	22° $\mathfrak{G}$ 35'39	1°22'50	retrograde	-1344 Jan 27 j 13:33	7° $\mathfrak{A}$ 18'23	
min. Earth dist.	-1350 Jan 23 j 13:27	22° $\mathfrak{G}$ 37'04	8.44896 AU	opposition	-1344 Apr 06 j 07:08	4° $\mathfrak{A}$ 01'53	2°50'28
direct	-1350 Apr 03 j 07:24	19° $\mathfrak{G}$ 07'56		min. Earth dist.	-1344 Apr 06 j 10:12	4° $\mathfrak{A}$ 01'19	9.11603 AU
evening set	-1350 Jul 18 j 10:07	26° $\mathfrak{G}$ 57'56		direct	-1344 Jun 16 j 21:23	0° $\mathfrak{A}$ 41'19	
				evening set	-1344 Sep 27 j 17:02	7° $\mathfrak{A}$ 45'09	
conjunction	-1350 Aug 05 j 00:52	29° $\mathfrak{G}$ 07'41	1°20'43	conjunction	-1344 Oct 14 j 06:28	9° $\mathfrak{A}$ 40'14	2°16'48
minimum elong	-1350 Aug 05 j 00:49	29° $\mathfrak{G}$ 07'40	1°20'44	minimum elong	-1344 Oct 14 j 06:30	9° $\mathfrak{A}$ 40'15	2°16'47
max. Earth dist.	-1350 Aug 05 j 08:19	29° $\mathfrak{G}$ 09'59	10.51817 AU	max. Earth dist.	-1344 Oct 14 j 01:29	9° $\mathfrak{A}$ 38'47	11.13971 AU
	-1350 Aug 12 j 02:17	0° $\mathfrak{Q}$		morning rise	-1344 Oct 30 j 17:08	11° $\mathfrak{A}$ 34'36	
morning rise	-1350 Aug 22 j 10:35	1° $\mathfrak{Q}$ 15'52		retrograde	-1343 Feb 07 j 00:30	18° $\mathfrak{A}$ 25'39	
retrograde	-1350 Nov 30 j 09:29	8° $\mathfrak{Q}$ 39'26		opposition	-1343 Apr 18 j 03:33	15° $\mathfrak{A}$ 09'22	2°41'33
opposition	-1349 Feb 05 j 20:41	5° $\mathfrak{Q}$ 18'27	1°54'18	min. Earth dist.	-1343 Apr 18 j 09:02	15° $\mathfrak{A}$ 08'21	9.16077 AU
min. Earth dist.	-1349 Feb 05 j 14:38	5° $\mathfrak{Q}$ 19'38	8.58675 AU	direct	-1343 Jun 28 j 17:23	11° $\mathfrak{A}$ 49'46	
direct	-1349 Apr 16 j 21:20	1° $\mathfrak{Q}$ 51'48		evening set	-1343 Oct 08 j 21:26	18° $\mathfrak{A}$ 49'26	
evening set	-1349 Jul 31 j 16:12	9° $\mathfrak{Q}$ 32'42					
conjunction	-1349 Aug 18 j 01:31	11° $\mathfrak{Q}$ 39'03	1°43'59	conjunction	-1343 Oct 25 j 09:19	20° $\mathfrak{A}$ 43'50	2°07'05
minimum elong	-1349 Aug 18 j 01:28	11° $\mathfrak{Q}$ 39'02	1°44'00	minimum elong	-1343 Oct 25 j 09:21	20° $\mathfrak{A}$ 43'50	2°07'04
max. Earth dist.	-1349 Aug 18 j 07:28	11° $\mathfrak{Q}$ 40'52	10.65453 AU	max. Earth dist.	-1343 Oct 25 j 01:47	20° $\mathfrak{A}$ 41'38	11.17185 AU
morning rise	-1349 Sep 04 j 05:35	13° $\mathfrak{Q}$ 43'50		morning rise	-1343 Nov 10 j 19:28	22° $\mathfrak{A}$ 37'45	
	-1349 Sep 15 j 01:32	15° $\mathfrak{Q}$		retrograde	-1342 Feb 18 j 11:30	29° $\mathfrak{A}$ 28'54	
retrograde	-1349 Dec 12 j 16:29	20° $\mathfrak{Q}$ 58'17		opposition	-1342 Apr 29 j 23:21	26° $\mathfrak{A}$ 12'31	2°26'43
opposition	-1348 Feb 18 j 13:59	17° $\mathfrak{Q}$ 38'37	2°19'26	min. Earth dist.	-1342 Apr 30 j 06:31	26° $\mathfrak{A}$ 11'13	9.17970 AU
min. Earth dist.	-1348 Feb 18 j 09:56	17° $\mathfrak{Q}$ 39'24	8.72102 AU	direct	-1342 Jul 10 j 10:25	22° $\mathfrak{A}$ 53'45	
	-1348 Mar 28 j 22:11	15° $\mathfrak{R}$ $\mathfrak{Q}$		evening set	-1342 Oct 19 j 22:57	29° $\mathfrak{A}$ 50'32	
direct	-1348 Apr 29 j 03:00	14° $\mathfrak{Q}$ 13'09			-1342 Oct 21 j 08:10	0° $\mathfrak{M}$	
	-1348 May 30 j 02:56	15° $\mathfrak{Q}$		conjunction	-1342 Nov 05 j 10:18	1° $\mathfrak{M}$ 44'47	1°52'40
evening set	-1348 Aug 12 j 10:43	21° $\mathfrak{Q}$ 45'07		minimum elong	-1342 Nov 05 j 10:20	1° $\mathfrak{M}$ 44'48	1°52'40
conjunction	-1348 Aug 29 j 14:41	23° $\mathfrak{Q}$ 48'18	2°01'54	max. Earth dist.	-1342 Nov 05 j 01:33	1° $\mathfrak{M}$ 42'14	11.17793 AU
minimum elong	-1348 Aug 29 j 14:38	23° $\mathfrak{Q}$ 48'17	2°01'56	morning rise	-1342 Nov 21 j 20:43	3° $\mathfrak{M}$ 38'48	
max. Earth dist.	-1348 Aug 29 j 18:20	23° $\mathfrak{Q}$ 49'24	10.78414 AU	retrograde	-1341 Mar 02 j 00:50	10° $\mathfrak{M}$ 31'43	
morning rise	-1348 Sep 15 j 13:37	25° $\mathfrak{Q}$ 50'00		opposition	-1341 May 11 j 19:26	7° $\mathfrak{M}$ 14'56	2°06'31
	-1348 Oct 24 j 14:10	0° $\mathfrak{M}$		min. Earth dist.	-1341 May 12 j 03:02	7° $\mathfrak{M}$ 13'32	9.17217 AU
retrograde	-1348 Dec 23 j 16:40	2° $\mathfrak{M}$ 56'40		direct	-1341 Jul 22 j 02:05	3° $\mathfrak{M}$ 56'46	
	-1347 Feb 25 j 06:12	30° $\mathfrak{R}$ $\mathfrak{Q}$		evening set	-1341 Oct 30 j 23:47	10° $\mathfrak{M}$ 52'09	
opposition	-1347 Mar 02 j 01:10	29° $\mathfrak{Q}$ 38'09	2°37'41	conjunction	-1341 Nov 16 j 11:26	12° $\mathfrak{M}$ 46'45	1°34'03
min. Earth dist.	-1347 Mar 01 j 23:38	29° $\mathfrak{Q}$ 38'27	8.84572 AU	minimum elong	-1341 Nov 16 j 11:29	12° $\mathfrak{M}$ 46'45	1°34'02
direct	-1347 May 11 j 23:43	26° $\mathfrak{Q}$ 13'55		max. Earth dist.	-1341 Nov 16 j 02:26	12° $\mathfrak{M}$ 44'07	11.15763 AU
	-1347 Jul 22 j 05:48	0° $\mathfrak{M}$		morning rise	-1341 Dec 02 j 22:48	14° $\mathfrak{M}$ 41'21	
evening set	-1347 Aug 24 j 18:51	3° $\mathfrak{M}$ 37'30			-1341 Dec 05 j 16:22	15° $\mathfrak{M}$	
conjunction	-1347 Sep 10 j 17:50	5° $\mathfrak{M}$ 37'54	2°14'09	retrograde	-1340 Mar 12 j 19:36	21° $\mathfrak{M}$ 37'35	
minimum elong	-1347 Sep 10 j 17:48	5° $\mathfrak{M}$ 37'53	2°14'10	opposition	-1340 May 22 j 16:51	18° $\mathfrak{M}$ 20'10	1°41'32
max. Earth dist.	-1347 Sep 10 j 18:14	5° $\mathfrak{M}$ 38'01	10.90153 AU	min. Earth dist.	-1340 May 23 j 01:07	18° $\mathfrak{M}$ 18'40	9.13840 AU
morning rise	-1347 Sep 27 j 12:24	7° $\mathfrak{M}$ 36'58		direct	-1340 Aug 01 j 16:18	15° $\mathfrak{M}$ 02'24	
retrograde	-1346 Jan 04 j 09:28	14° $\mathfrak{M}$ 37'21		evening set	-1340 Nov 10 j 01:47	21° $\mathfrak{M}$ 57'51	
opposition	-1346 Mar 14 j 06:58	11° $\mathfrak{M}$ 19'45	2°48'51				

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 6

Attention, astronomical year style is used: The year -1340 in astronomical counting style is the year 1341 BCE in historical counting style.

conjunction	-1340 Nov 26 j 14:12	23° $\mathbb{M}$ 53'16	1°11'47		-1334 Dec 22 j 21:02	0° $\approx$	
minimum elong	-1340 Nov 26 j 14:14	23° $\mathbb{M}$ 53'17	1°11'45	evening set	-1333 Jan 19 j 17:04	3° $\approx$ 13'38	
max. Earth dist.	-1340 Nov 26 j 03:55	23° $\mathbb{M}$ 50'15	11.11158 AU				
morning rise	-1340 Dec 13 j 03:17	25° $\mathbb{M}$ 48'58		conjunction	-1333 Feb 05 j 19:21	5° $\approx$ 21'46	-1°-32'-25
	-1339 Jan 22 j 15:16	0° $\mathcal{A}$		minimum elong	-1333 Feb 05 j 19:18	5° $\approx$ 21'46	1°32'27
retrograde	-1339 Mar 24 j 16:01	2° $\mathcal{A}$ 50'07		max. Earth dist.	-1333 Feb 05 j 11:06	5° $\approx$ 19'11	10.42754 AU
	-1339 May 28 j 07:09	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-1333 Feb 23 j 02:37	7° $\approx$ 31'30	
opposition	-1339 Jun 03 j 17:05	29° $\mathbb{M}$ 31'49	1°12'29		-1333 May 16 j 05:57	15° $\approx$	
min. Earth dist.	-1339 Jun 04 j 02:26	29° $\mathbb{M}$ 30'06	9.07948 AU	retrograde	-1333 Jun 09 j 16:53	15° $\approx$ 30'32	
direct	-1339 Aug 13 j 05:23	26° $\mathbb{M}$ 14'08			-1333 Jul 04 j 08:11	15° $\mathbb{R}$ $\approx$	
	-1339 Oct 22 j 17:25	0° $\mathcal{A}$		opposition	-1333 Aug 18 j 08:27	12° $\approx$ 03'19	-2°-8'-55
evening set	-1339 Nov 21 j 06:35	3° $\mathcal{A}$ 11'16		min. Earth dist.	-1333 Aug 18 j 13:55	12° $\approx$ 02'14	8.35759 AU
				direct	-1333 Oct 24 j 15:15	8° $\approx$ 40'49	
conjunction	-1339 Dec 07 j 20:15	5° $\mathcal{A}$ 07'55	0°46'31		-1332 Jan 22 j 03:54	15° $\approx$	
minimum elong	-1339 Dec 07 j 20:16	5° $\mathcal{A}$ 07'56	0°46'29	evening set	-1332 Feb 02 j 03:03	16° $\approx$ 20'42	
max. Earth dist.	-1339 Dec 07 j 08:45	5° $\mathcal{A}$ 04'32	11.04124 AU				
morning rise	-1339 Dec 24 j 11:41	7° $\mathcal{A}$ 05'07		conjunction	-1332 Feb 19 j 08:54	18° $\approx$ 31'48	-1°-53'-56
retrograde	-1338 Apr 05 j 19:15	14° $\mathcal{A}$ 12'49		minimum elong	-1332 Feb 19 j 08:51	18° $\approx$ 31'47	1°53'58
opposition	-1338 Jun 15 j 21:04	10° $\mathcal{A}$ 53'22	0°40'09	max. Earth dist.	-1332 Feb 19 j 03:36	18° $\approx$ 30'06	10.28930 AU
min. Earth dist.	-1338 Jun 16 j 07:06	10° $\mathcal{A}$ 51'31	8.99730 AU	morning rise	-1332 Mar 07 j 19:42	20° $\approx$ 44'30	
direct	-1338 Aug 24 j 23:24	7° $\mathcal{A}$ 35'29		retrograde	-1332 Jun 23 j 00:22	28° $\approx$ 54'40	
evening set	-1338 Dec 02 j 16:09	14° $\mathcal{A}$ 35'55		opposition	-1332 Aug 31 j 03:14	25° $\approx$ 25'58	-2°-32'-43
				min. Earth dist.	-1332 Aug 31 j 06:14	25° $\approx$ 25'22	8.22490 AU
conjunction	-1338 Dec 19 j 07:43	16° $\mathcal{A}$ 34'13	0°19'03	direct	-1332 Nov 05 j 22:25	22° $\approx$ 02'04	
minimum elong	-1338 Dec 19 j 07:44	16° $\mathcal{A}$ 34'13	0°19'01	evening set	-1331 Feb 15 j 01:23	29° $\approx$ 52'26	
max. Earth dist.	-1338 Dec 18 j 20:34	16° $\mathcal{A}$ 30'54	10.94869 AU		-1331 Feb 16 j 01:16	0° $\mathbb{H}$	
morning rise	-1337 Jan 05 j 01:47	18° $\mathcal{A}$ 33'20					
retrograde	-1337 Apr 18 j 06:02	25° $\mathcal{A}$ 49'03		conjunction	-1331 Mar 04 j 11:06	2° $\mathbb{H}$ 06'28	-2°-9'-48
opposition	-1337 Jun 28 j 05:34	22° $\mathcal{A}$ 28'13	0°05'32	minimum elong	-1331 Mar 04 j 11:04	2° $\mathbb{H}$ 06'27	2°09'50
min. Earth dist.	-1337 Jun 28 j 15:04	22° $\mathcal{A}$ 26'27	8.89433 AU	max. Earth dist.	-1331 Mar 04 j 09:15	2° $\mathbb{H}$ 05'52	10.16288 AU
desc. node	-1337 Aug 26 j 02:42	19° $\mathcal{A}$ 15'40		morning rise	-1331 Mar 22 j 01:34	4° $\mathbb{H}$ 22'05	
direct	-1337 Sep 05 j 19:32	19° $\mathcal{A}$ 09'53		retrograde	-1331 Jul 07 j 15:55	12° $\mathbb{H}$ 41'56	
evening set	-1337 Dec 14 j 08:16	26° $\mathcal{A}$ 15'15		opposition	-1331 Sep 14 j 04:48	9° $\mathbb{H}$ 11'59	-2°-48'-35
				min. Earth dist.	-1331 Sep 14 j 04:49	9° $\mathbb{H}$ 11'59	8.10785 AU
conjunction	-1337 Dec 31 j 02:09	28° $\mathcal{A}$ 15'35	0°-9'-49	direct	-1331 Nov 19 j 14:03	5° $\mathbb{H}$ 46'39	
minimum elong	-1337 Dec 31 j 02:08	28° $\mathcal{A}$ 15'35	0°09'51	evening set	-1330 Mar 01 j 11:30	13° $\mathbb{H}$ 47'05	
behind sun begin	-1337 Dec 30 j 20:23	28° $\mathcal{A}$ 13'52					
behind sun end	-1337 Dec 31 j 07:53	28° $\mathcal{A}$ 17'18		conjunction	-1330 Mar 19 j 01:21	16° $\mathbb{H}$ 03'54	-2°-18'-33
max. Earth dist.	-1337 Dec 30 j 15:38	28° $\mathcal{A}$ 12'25	10.83656 AU	minimum elong	-1330 Mar 19 j 01:20	16° $\mathbb{H}$ 03'53	2°18'35
	-1336 Jan 14 j 13:53	0° $\mathcal{B}$		max. Earth dist.	-1330 Mar 19 j 02:38	16° $\mathbb{H}$ 04'19	10.05582 AU
morning rise	-1336 Jan 16 j 23:05	0° $\mathcal{B}$ 16'56		morning rise	-1330 Apr 05 j 19:36	18° $\mathbb{H}$ 22'11	
retrograde	-1336 Apr 30 j 01:01	7° $\mathcal{B}$ 42'06		retrograde	-1330 Jul 22 j 12:55	26° $\mathbb{H}$ 49'21	
opposition	-1336 Jul 09 j 19:46	4° $\mathcal{B}$ 19'44	0°-30'-12	opposition	-1330 Sep 28 j 11:56	23° $\mathbb{H}$ 18'31	-2°-54'-48
min. Earth dist.	-1336 Jul 10 j 04:25	4° $\mathcal{B}$ 18'06	8.77353 AU	min. Earth dist.	-1330 Sep 28 j 09:25	23° $\mathbb{H}$ 19'02	8.01344 AU
direct	-1336 Sep 16 j 20:23	1° $\mathcal{B}$ 00'42		direct	-1330 Dec 03 j 14:40	19° $\mathbb{H}$ 51'48	
evening set	-1336 Dec 25 j 08:45	8° $\mathcal{B}$ 12'40		evening set	-1329 Mar 16 j 08:09	28° $\mathbb{H}$ 01'06	
					-1329 Mar 31 j 12:17	0° $\mathbb{Y}$	
conjunction	-1335 Jan 11 j 05:05	10° $\mathcal{B}$ 15'21	0°-38'-50				
minimum elong	-1335 Jan 11 j 05:03	10° $\mathcal{B}$ 15'21	0°38'51	conjunction	-1329 Apr 03 j 02:13	0° $\mathbb{Y}$ 20'23	-2°-19'-5
max. Earth dist.	-1335 Jan 10 j 18:39	10° $\mathcal{B}$ 12'11	10.70840 AU	minimum elong	-1329 Apr 03 j 02:14	0° $\mathbb{Y}$ 20'23	2°19'06
morning rise	-1335 Jan 28 j 05:14	12° $\mathcal{B}$ 19'17		max. Earth dist.	-1329 Apr 03 j 06:17	0° $\mathbb{Y}$ 21'43	9.97480 AU
retrograde	-1335 May 13 j 05:49	19° $\mathcal{B}$ 55'08		morning rise	-1329 Apr 21 j 00:07	2° $\mathbb{Y}$ 40'55	
opposition	-1335 Jul 22 j 16:39	16° $\mathcal{B}$ 31'11	-1°-5'-40	retrograde	-1329 Aug 06 j 12:25	11° $\mathbb{Y}$ 12'11	
min. Earth dist.	-1335 Jul 23 j 00:31	16° $\mathcal{B}$ 29'40	8.63934 AU	opposition	-1329 Oct 12 j 22:54	7° $\mathbb{Y}$ 40'56	-2°-50'-16
direct	-1335 Sep 29 j 02:15	13° $\mathcal{B}$ 11'12		min. Earth dist.	-1329 Oct 12 j 18:26	7° $\mathbb{Y}$ 41'52	7.94767 AU
evening set	-1334 Jan 06 j 19:17	20° $\mathcal{B}$ 31'21		direct	-1329 Dec 17 j 23:25	4° $\mathbb{Y}$ 12'57	
				evening set	-1328 Mar 30 j 12:49	12° $\mathbb{Y}$ 29'11	
conjunction	-1334 Jan 23 j 18:22	22° $\mathcal{B}$ 36'40	-1°-6'-51				
minimum elong	-1334 Jan 23 j 18:20	22° $\mathcal{B}$ 36'39	1°06'53	conjunction	-1328 Apr 17 j 10:58	14° $\mathbb{Y}$ 50'25	-2°-10'-56
max. Earth dist.	-1334 Jan 23 j 08:14	22° $\mathcal{B}$ 33'31	10.56973 AU	minimum elong	-1328 Apr 17 j 11:01	14° $\mathbb{Y}$ 50'26	2°10'57
morning rise	-1334 Feb 09 j 22:02	24° $\mathcal{B}$ 43'25		max. Earth dist.	-1328 Apr 17 j 17:38	14° $\mathbb{Y}$ 52'37	9.92520 AU
	-1334 Mar 31 j 13:24	0° $\approx$		morning rise	-1328 May 05 j 12:06	17° $\mathbb{Y}$ 12'35	
retrograde	-1334 May 26 j 19:13	2° $\approx$ 30'46		retrograde	-1328 Aug 20 j 11:33	25° $\mathbb{Y}$ 44'21	
	-1334 Jul 23 j 22:50	30° $\mathbb{R}$ $\mathcal{B}$		opposition	-1328 Oct 26 j 12:00	22° $\mathbb{Y}$ 13'08	-2°-34'-47
opposition	-1334 Aug 04 j 20:50	29° $\mathcal{B}$ 05'10	-1°-39'-13	min. Earth dist.	-1328 Oct 26 j 05:53	22° $\mathbb{Y}$ 14'24	7.91496 AU
min. Earth dist.	-1334 Aug 05 j 03:57	29° $\mathcal{B}$ 03'47	8.49826 AU	direct	-1328 Dec 31 j 14:02	18° $\mathbb{Y}$ 44'06	
direct	-1334 Oct 11 j 15:41	25° $\mathcal{B}$ 44'01		evening set	-1327 Apr 14 j 22:25	27° $\mathbb{Y}$ 04'40	



# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 7

Attention, astronomical year style is used: The year -1327 in astronomical counting style is the year 1328 BCE in historical counting style.

conjunction	-1327 May 03 j 00:08	29°Υ27'07	-1°-54'-22	evening set	-1321 Jul 12 j 07:45	21°♄05'13	
minimum elong	-1327 May 03 j 00:12	29°Υ27'09	1°54'23				
max. Earth dist.	-1327 May 03 j 09:04	29°Υ30'05	9.91036 AU	conjunction	-1321 Jul 30 j 01:05	23°♄16'44	1°07'51
	-1327 May 07 j 03:38	0°♄		minimum elong	-1321 Jul 30 j 01:02	23°♄16'43	1°07'52
morning rise	-1327 May 21 j 03:43	1°♄50'07		max. Earth dist.	-1321 Jul 30 j 10:39	23°♄19'43	10.44603 AU
retrograde	-1327 Sep 04 j 08:04	10°♄18'41		morning rise	-1321 Aug 16 j 13:33	25°♄26'43	
opposition	-1327 Nov 10 j 00:51	6°♄47'58	-2°-9'-16		-1321 Sep 27 j 01:49	0°♄	
min. Earth dist.	-1327 Nov 09 j 17:26	6°♄49'31	7.91751 AU	retrograde	-1321 Nov 24 j 20:59	2°♄55'29	
direct	-1326 Jan 15 j 08:46	3°♄18'10			-1320 Jan 25 j 13:43	30°♄	
evening set	-1326 Apr 30 j 09:53	11°♄40'15		opposition	-1320 Jan 31 j 03:07	29°♄33'48	1°39'58
				min. Earth dist.	-1320 Jan 30 j 20:27	29°♄35'07	8.51631 AU
conjunction	-1326 May 18 j 14:09	14°♄03'01	-1°-30'-30	direct	-1320 Apr 09 j 19:45	26°♄06'40	
minimum elong	-1326 May 18 j 14:13	14°♄03'03	1°30'31		-1320 Jun 20 j 01:14	0°♄	
max. Earth dist.	-1326 May 19 j 00:48	14°♄06'32	9.93116 AU	evening set	-1320 Jul 24 j 19:58	3°♄52'18	
	-1326 May 25 j 19:17	15°♄					
morning rise	-1326 Jun 05 j 18:52	16°♄25'52		conjunction	-1320 Aug 11 j 07:49	6°♄00'19	1°33'28
retrograde	-1326 Sep 18 j 23:19	24°♄47'55		minimum elong	-1320 Aug 11 j 07:46	6°♄00'19	1°33'29
opposition	-1326 Nov 24 j 11:15	21°♄18'07	-1°-35'-36	max. Earth dist.	-1320 Aug 11 j 14:47	6°♄02'28	10.58705 AU
min. Earth dist.	-1326 Nov 24 j 02:34	21°♄19'56	7.95506 AU	morning rise	-1320 Aug 28 j 14:46	8°♄06'49	
direct	-1325 Jan 30 j 04:53	17°♄47'55			-1320 Nov 14 j 08:21	15°♄	
evening set	-1325 May 15 j 19:35	26°♄08'40		retrograde	-1320 Dec 06 j 06:50	15°♄25'49	
					-1320 Dec 28 j 11:59	15°♄	
conjunction	-1325 Jun 03 j 00:53	28°♄30'45	-1°-1'-7	opposition	-1319 Feb 11 j 23:48	12°♄05'42	2°08'14
minimum elong	-1325 Jun 03 j 00:56	28°♄30'46	1°01'07	min. Earth dist.	-1319 Feb 11 j 18:27	12°♄06'45	8.65676 AU
max. Earth dist.	-1325 Jun 03 j 12:54	28°♄34'41	9.98600 AU	direct	-1319 Apr 23 j 07:03	8°♄39'52	
	-1325 Jun 14 j 10:24	0°♄			-1319 Jul 26 j 22:10	15°♄	
morning rise	-1325 Jun 21 j 05:09	0°♄52'28		evening set	-1319 Aug 06 j 20:34	16°♄16'27	
retrograde	-1325 Oct 03 j 07:24	9°♄05'28					
opposition	-1325 Dec 08 j 17:36	5°♄36'57	0°-56'-23	conjunction	-1319 Aug 24 j 03:02	18°♄21'09	1°54'00
min. Earth dist.	-1325 Dec 08 j 07:46	5°♄38'59	8.02501 AU	minimum elong	-1319 Aug 24 j 02:59	18°♄21'08	1°54'02
direct	-1324 Feb 13 j 23:52	2°♄06'43		max. Earth dist.	-1319 Aug 24 j 07:50	18°♄22'36	10.72428 AU
evening set	-1324 May 29 j 23:59	10°♄23'30		morning rise	-1319 Sep 10 j 04:33	20°♄24'21	
				retrograde	-1319 Dec 18 j 11:19	27°♄34'51	
conjunction	-1324 Jun 17 j 04:37	12°♄43'57	0°-28'-23	opposition	-1318 Feb 24 j 14:14	24°♄16'06	2°29'47
minimum elong	-1324 Jun 17 j 04:38	12°♄43'57	0°28'24	min. Earth dist.	-1318 Feb 24 j 10:10	24°♄16'53	8.79019 AU
max. Earth dist.	-1324 Jun 17 j 17:30	12°♄48'07	10.07108 AU	direct	-1318 May 06 j 08:18	20°♄51'39	
morning rise	-1324 Jul 05 j 06:47	15°♄03'36		evening set	-1318 Aug 19 j 10:07	28°♄19'26	
retrograde	-1324 Oct 16 j 06:29	23°♄05'57			-1318 Sep 02 j 12:57	0°♄	
opposition	-1324 Dec 21 j 18:17	19°♄38'58	0°-14'-34	conjunction	-1318 Sep 05 j 11:31	0°♄21'08	2°08'59
min. Earth dist.	-1324 Dec 21 j 08:02	19°♄41'05	8.12271 AU	minimum elong	-1318 Sep 05 j 11:28	0°♄21'07	2°09'00
direct	-1323 Feb 27 j 14:56	16°♄09'04		max. Earth dist.	-1318 Sep 05 j 14:43	0°♄22'06	10.85140 AU
asc. node	-1323 May 02 j 07:43	19°♄30'10		morning rise	-1318 Sep 22 j 08:02	2°♄21'25	
evening set	-1323 Jun 13 j 20:48	24°♄19'50		retrograde	-1318 Dec 30 j 09:03	9°♄24'51	
				opposition	-1317 Mar 08 j 23:06	6°♄07'13	2°44'18
conjunction	-1323 Jul 01 j 23:03	26°♄37'49	0°05'26	min. Earth dist.	-1317 Mar 08 j 21:16	6°♄07'34	8.91065 AU
minimum elong	-1323 Jul 01 j 23:03	26°♄37'49	0°05'26	direct	-1317 May 19 j 01:33	2°♄44'06	
behind sun begin	-1323 Jul 01 j 16:00	26°♄35'35		evening set	-1317 Aug 31 j 13:46	10°♄03'46	
behind sun end	-1323 Jul 02 j 06:06	26°♄40'03					
max. Earth dist.	-1323 Jul 02 j 11:51	26°♄41'54	10.18076 AU	conjunction	-1317 Sep 17 j 10:38	12°♄02'54	2°18'10
morning rise	-1323 Jul 19 j 21:38	28°♄54'38		minimum elong	-1317 Sep 17 j 10:37	12°♄02'53	2°18'11
	-1323 Jul 28 j 17:17	0°♄		max. Earth dist.	-1317 Sep 17 j 11:14	12°♄03'04	10.96292 AU
retrograde	-1323 Oct 29 j 20:51	6°♄45'34		morning rise	-1317 Oct 04 j 03:05	14°♄00'46	
opposition	-1322 Jan 04 j 12:15	3°♄20'20	0°26'57	retrograde	-1316 Jan 11 j 02:14	20°♄58'38	
min. Earth dist.	-1322 Jan 04 j 02:33	3°♄22'18	8.24195 AU	opposition	-1316 Mar 20 j 03:07	17°♄41'51	2°51'45
	-1322 Mar 01 j 00:32	30°♄		min. Earth dist.	-1316 Mar 20 j 04:11	17°♄41'40	9.01296 AU
direct	-1322 Mar 13 j 23:21	29°♄51'05		direct	-1316 May 30 j 11:53	14°♄19'59	
	-1322 Mar 26 j 22:47	0°♄		evening set	-1316 Sep 11 j 08:46	21°♄32'28	
evening set	-1322 Jun 28 j 07:54	7°♄54'18					
conjunction	-1322 Jul 16 j 06:15	10°♄09'14	0°38'03	conjunction	-1316 Sep 28 j 01:52	23°♄29'33	2°21'37
minimum elong	-1322 Jul 16 j 06:13	10°♄09'13	0°38'03	minimum elong	-1316 Sep 28 j 01:52	23°♄29'33	2°21'37
max. Earth dist.	-1322 Jul 16 j 18:00	10°♄12'56	10.30819 AU	max. Earth dist.	-1316 Sep 27 j 22:56	23°♄28'41	11.05404 AU
morning rise	-1322 Aug 03 j 00:04	12°♄22'44		morning rise	-1316 Oct 14 j 15:22	25°♄25'35	
retrograde	-1322 Nov 12 j 02:08	20°♄02'17			-1316 Nov 28 j 17:22	0°♄	
opposition	-1321 Jan 17 j 23:17	16°♄38'51	1°05'46	retrograde	-1315 Jan 21 j 14:28	2°♄19'31	
min. Earth dist.	-1321 Jan 17 j 15:07	16°♄40'29	8.37562 AU		-1315 Mar 19 j 04:22	30°♄	
direct	-1321 Mar 28 j 01:04	13°♄10'33		opposition	-1315 Apr 01 j 03:26	29°♄03'17	2°52'18

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 8

Attention, astronomical year style is used: The year -1315 in astronomical counting style is the year 1316 BCE in historical counting style.

min. Earth dist.	-1315 Apr 01 j 07:00	29° $\overline{\text{M}}$ 02'38	9.09258 AU	opposition	-1309 Jun 10 j 16:28	5° $\overline{\text{X}}$ 55'03	0°55'21
direct	-1315 Jun 11 j 15:57	25° $\overline{\text{M}}$ 42'33		min. Earth dist.	-1309 Jun 11 j 02:12	5° $\overline{\text{X}}$ 53'15	9.02085 AU
	-1315 Aug 27 j 19:52	0° $\underline{\text{A}}$		direct	-1309 Aug 20 j 01:13	2° $\overline{\text{X}}$ 36'48	
evening set	-1315 Sep 22 j 20:44	2° $\underline{\text{A}}$ 49'03		evening set	-1309 Nov 27 j 20:20	9° $\overline{\text{X}}$ 36'05	
conjunction	-1315 Oct 09 j 11:04	4° $\underline{\text{A}}$ 44'39	2°19'30	conjunction	-1309 Dec 14 j 11:08	11° $\overline{\text{X}}$ 33'47	0°31'52
minimum elong	-1315 Oct 09 j 11:05	4° $\underline{\text{A}}$ 44'39	2°19'29	minimum elong	-1309 Dec 14 j 11:09	11° $\overline{\text{X}}$ 33'47	0°31'50
max. Earth dist.	-1315 Oct 09 j 05:26	4° $\underline{\text{A}}$ 43'00	11.12100 AU	max. Earth dist.	-1309 Dec 13 j 23:22	11° $\overline{\text{X}}$ 30'17	10.97514 AU
morning rise	-1315 Oct 25 j 22:29	6° $\underline{\text{A}}$ 39'25		morning rise	-1309 Dec 31 j 03:56	13° $\overline{\text{X}}$ 32'10	
retrograde	-1314 Feb 02 j 02:38	13° $\underline{\text{A}}$ 31'11		retrograde	-1308 Apr 11 j 22:51	20° $\overline{\text{X}}$ 44'34	
opposition	-1314 Apr 13 j 01:11	10° $\underline{\text{A}}$ 15'11	2°46'18	opposition	-1308 Jun 21 j 22:51	17° $\overline{\text{X}}$ 23'51	0°21'38
min. Earth dist.	-1314 Apr 13 j 06:06	10° $\underline{\text{A}}$ 14'17	9.14665 AU	min. Earth dist.	-1308 Jun 22 j 08:52	17° $\overline{\text{X}}$ 21'59	8.92395 AU
direct	-1314 Jun 23 j 16:08	6° $\underline{\text{A}}$ 55'28		direct	-1308 Aug 30 j 18:14	14° $\overline{\text{X}}$ 05'10	
evening set	-1314 Oct 04 j 03:25	13° $\underline{\text{A}}$ 57'13		evening set	-1308 Dec 08 j 09:27	21° $\overline{\text{X}}$ 08'46	
conjunction	-1314 Oct 20 j 16:02	15° $\underline{\text{A}}$ 51'55	2°12'06	conjunction	-1308 Dec 25 j 02:11	23° $\overline{\text{X}}$ 08'20	0°03'34
minimum elong	-1314 Oct 20 j 16:04	15° $\underline{\text{A}}$ 51'55	2°12'05	minimum elong	-1308 Dec 25 j 02:10	23° $\overline{\text{X}}$ 08'20	0°03'33
max. Earth dist.	-1314 Oct 20 j 09:13	15° $\underline{\text{A}}$ 49'55	11.16194 AU	behind sun begin	-1308 Dec 24 j 19:13	23° $\overline{\text{X}}$ 06'16	
morning rise	-1314 Nov 06 j 02:16	17° $\underline{\text{A}}$ 46'00		behind sun end	-1308 Dec 25 j 09:07	23° $\overline{\text{X}}$ 10'24	
retrograde	-1313 Feb 13 j 15:28	24° $\underline{\text{A}}$ 37'12		max. Earth dist.	-1308 Dec 24 j 13:57	23° $\overline{\text{X}}$ 04'41	10.86921 AU
opposition	-1313 Apr 24 j 21:41	21° $\underline{\text{A}}$ 21'08	2°34'10	morning rise	-1307 Jan 10 j 21:55	25° $\overline{\text{X}}$ 08'50	
min. Earth dist.	-1313 Apr 25 j 04:10	21° $\underline{\text{A}}$ 19'57	9.17408 AU	desc. node	-1307 Feb 08 j 17:11	28° $\overline{\text{X}}$ 19'52	
direct	-1313 Jul 05 j 10:18	18° $\underline{\text{A}}$ 02'13			-1307 Feb 26 j 18:17	0° $\overline{\text{Z}}$	
evening set	-1313 Oct 15 j 06:34	25° $\underline{\text{A}}$ 00'30		retrograde	-1307 Apr 24 j 12:41	2° $\overline{\text{Z}}$ 30'10	
conjunction	-1313 Oct 31 j 18:15	26° $\underline{\text{A}}$ 54'51	1°59'48		-1307 Jun 22 j 18:50	30° $\overline{\text{R}}$ $\overline{\text{X}}$	
minimum elong	-1313 Oct 31 j 18:17	26° $\underline{\text{A}}$ 54'51	1°59'48	opposition	-1307 Jul 04 j 10:43	29° $\overline{\text{X}}$ 07'56	0°-13'-47
max. Earth dist.	-1313 Oct 31 j 09:35	26° $\underline{\text{A}}$ 52'19	11.17617 AU	min. Earth dist.	-1307 Jul 04 j 20:38	29° $\overline{\text{X}}$ 06'04	8.80932 AU
morning rise	-1313 Nov 17 j 04:22	28° $\underline{\text{A}}$ 48'49		direct	-1307 Sep 11 j 17:18	25° $\overline{\text{X}}$ 48'36	
	-1313 Nov 27 j 18:47	0° $\overline{\text{M}}$			-1307 Nov 23 j 19:32	0° $\overline{\text{Z}}$	
retrograde	-1312 Feb 25 j 03:44	5° $\overline{\text{M}}$ 41'03		evening set	-1307 Dec 20 j 05:52	2° $\overline{\text{Z}}$ 58'07	
opposition	-1312 May 05 j 17:58	2° $\overline{\text{M}}$ 24'35	2°16'24	conjunction	-1306 Jan 06 j 01:02	4° $\overline{\text{Z}}$ 59'55	0°-25'-36
min. Earth dist.	-1312 May 06 j 02:30	2° $\overline{\text{M}}$ 23'02	9.17454 AU	minimum elong	-1306 Jan 06 j 01:01	4° $\overline{\text{Z}}$ 59'55	0°25'38
	-1312 Jun 11 j 18:13	30° $\overline{\text{R}}$ $\underline{\text{A}}$		max. Earth dist.	-1306 Jan 05 j 13:58	4° $\overline{\text{Z}}$ 56'33	10.74740 AU
direct	-1312 Jul 16 j 02:09	29° $\underline{\text{A}}$ 06'11		morning rise	-1306 Jan 22 j 23:53	7° $\overline{\text{Z}}$ 02'52	
	-1312 Aug 18 j 18:52	0° $\overline{\text{M}}$		retrograde	-1306 May 07 j 13:01	14° $\overline{\text{Z}}$ 34'25	
evening set	-1312 Oct 25 j 08:06	6° $\overline{\text{M}}$ 02'28		opposition	-1306 Jul 17 j 04:46	11° $\overline{\text{Z}}$ 10'35	0°-49'-38
conjunction	-1312 Nov 10 j 19:29	7° $\overline{\text{M}}$ 56'57	1°43'04	min. Earth dist.	-1306 Jul 17 j 13:29	11° $\overline{\text{Z}}$ 08'55	8.68128 AU
minimum elong	-1312 Nov 10 j 19:32	7° $\overline{\text{M}}$ 56'57	1°43'03	direct	-1306 Sep 23 j 21:59	7° $\overline{\text{Z}}$ 50'26	
max. Earth dist.	-1312 Nov 10 j 08:32	7° $\overline{\text{M}}$ 53'45	11.16362 AU	evening set	-1305 Jan 01 j 11:43	15° $\overline{\text{Z}}$ 07'23	
morning rise	-1312 Nov 27 j 06:26	9° $\overline{\text{M}}$ 51'19		conjunction	-1305 Jan 18 j 09:41	17° $\overline{\text{Z}}$ 11'42	0°-54'-17
	-1311 Jan 19 j 06:57	15° $\overline{\text{M}}$		minimum elong	-1305 Jan 18 j 09:39	17° $\overline{\text{Z}}$ 11'41	0°54'18
retrograde	-1311 Mar 07 j 18:54	16° $\overline{\text{M}}$ 46'11		max. Earth dist.	-1305 Jan 18 j 00:40	17° $\overline{\text{Z}}$ 08'55	10.61441 AU
	-1311 Apr 26 j 01:24	15° $\overline{\text{R}}$ $\overline{\text{M}}$		morning rise	-1305 Feb 04 j 11:45	19° $\overline{\text{Z}}$ 17'21	
opposition	-1311 May 17 j 15:02	13° $\overline{\text{M}}$ 29'01	1°53'34	retrograde	-1305 May 20 j 22:18	27° $\overline{\text{Z}}$ 00'02	
min. Earth dist.	-1311 May 18 j 01:01	13° $\overline{\text{M}}$ 27'12	9.14833 AU	opposition	-1305 Jul 30 j 05:32	23° $\overline{\text{Z}}$ 34'35	-1°-24'-19
direct	-1311 Jul 27 j 17:38	10° $\overline{\text{M}}$ 10'54		min. Earth dist.	-1305 Jul 30 j 12:11	23° $\overline{\text{Z}}$ 33'18	8.54506 AU
	-1311 Oct 17 j 06:08	15° $\overline{\text{M}}$		direct	-1305 Oct 06 j 08:12	20° $\overline{\text{Z}}$ 13'26	
evening set	-1311 Nov 05 j 09:38	17° $\overline{\text{M}}$ 06'37		evening set	-1304 Jan 14 j 04:22	27° $\overline{\text{Z}}$ 39'14	
conjunction	-1311 Nov 21 j 21:36	19° $\overline{\text{M}}$ 01'43	1°22'24	conjunction	-1304 Jan 31 j 05:19	29° $\overline{\text{Z}}$ 46'16	-1°-21'-11
minimum elong	-1311 Nov 21 j 21:38	19° $\overline{\text{M}}$ 01'44	1°22'23	minimum elong	-1304 Jan 31 j 05:17	29° $\overline{\text{Z}}$ 46'15	1°21'12
max. Earth dist.	-1311 Nov 21 j 10:06	18° $\overline{\text{M}}$ 58'21	11.12493 AU	max. Earth dist.	-1304 Jan 30 j 21:55	29° $\overline{\text{Z}}$ 43'57	10.47599 AU
morning rise	-1311 Dec 08 j 09:58	20° $\overline{\text{M}}$ 57'00			-1304 Feb 02 j 01:13	0° $\approx$	
retrograde	-1310 Mar 19 j 13:28	27° $\overline{\text{M}}$ 56'08		morning rise	-1304 Feb 17 j 10:49	1° $\approx$ 54'47	
opposition	-1310 May 29 j 14:12	24° $\overline{\text{M}}$ 37'58	1°26'18	retrograde	-1304 Jun 02 j 17:19	9° $\approx$ 49'06	
min. Earth dist.	-1310 May 30 j 00:13	24° $\overline{\text{M}}$ 36'08	9.09651 AU	opposition	-1304 Aug 11 j 13:53	6° $\approx$ 22'05	-1°-56'-3
direct	-1310 Aug 08 j 08:32	21° $\overline{\text{M}}$ 19'54		min. Earth dist.	-1304 Aug 11 j 18:30	6° $\approx$ 21'11	8.40682 AU
evening set	-1310 Nov 16 j 12:57	28° $\overline{\text{M}}$ 16'35		direct	-1304 Oct 18 j 02:30	2° $\approx$ 59'50	
	-1310 Dec 01 j 06:47	0° $\overline{\text{X}}$		evening set	-1303 Jan 26 j 08:48	10° $\approx$ 35'28	
conjunction	-1310 Dec 03 j 02:10	0° $\overline{\text{X}}$ 12'47	0°58'26	conjunction	-1303 Feb 12 j 12:56	12° $\approx$ 45'22	-1°-44'-45
minimum elong	-1310 Dec 03 j 02:12	0° $\overline{\text{X}}$ 12'48	0°58'24	minimum elong	-1303 Feb 12 j 12:53	12° $\approx$ 45'21	1°44'47
max. Earth dist.	-1310 Dec 02 j 14:57	0° $\overline{\text{X}}$ 09'29	11.06139 AU	max. Earth dist.	-1303 Feb 12 j 07:18	12° $\approx$ 43'34	10.33886 AU
morning rise	-1310 Dec 19 j 16:27	2° $\overline{\text{X}}$ 09'24		morning rise	-1303 Mar 01 j 22:04	14° $\approx$ 56'51	
retrograde	-1309 Mar 31 j 15:43	9° $\overline{\text{X}}$ 14'25			-1303 Mar 02 j 08:12	15° $\approx$	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 9

Attention, astronomical year style is used: The year -1303 in astronomical counting style is the year 1304 BCE in historical counting style.

retrograde	-1303 Jun 16 j 22:04	23° <del>02</del> '35		max. Earth dist.	-1297 May 12 j 11:49	7° <del>08</del> 49'13	9.93049 AU
opposition	-1303 Aug 25 j 05:51	19° <del>00</del> 34'11	-2°-22'-47	morning rise	-1297 May 30 j 03:58	10° <del>08</del> 08'08	
min. Earth dist.	-1303 Aug 25 j 08:38	19° <del>00</del> 33'38	8.27359 AU		-1297 Jul 10 j 13:19	15° <del>08</del>	
direct	-1303 Oct 31 j 04:48	16° <del>00</del> 10'42		retrograde	-1297 Sep 12 j 21:06	18° <del>08</del> 33'05	
evening set	-1302 Feb 09 j 01:45	23° <del>00</del> 56'44		opposition	-1297 Nov 18 j 09:53	15° <del>08</del> 03'20	-1°-51'-23
				min. Earth dist.	-1297 Nov 18 j 00:43	15° <del>08</del> 05'15	7.94780 AU
conjunction	-1302 Feb 26 j 09:30	26° <del>00</del> 09'32	-2°-3'-22		-1297 Nov 19 j 01:53	15° <del>08</del>	
minimum elong	-1302 Feb 26 j 09:28	26° <del>00</del> 09'31	2°03'24	direct	-1296 Jan 23 j 21:38	11° <del>08</del> 33'52	
max. Earth dist.	-1302 Feb 26 j 06:14	26° <del>00</del> 08'29	10.21037 AU		-1296 Mar 27 j 03:19	15° <del>08</del>	
morning rise	-1302 Mar 15 j 22:25	28° <del>00</del> 23'59		evening set	-1296 May 08 j 07:28	19° <del>08</del> 55'00	
	-1302 Mar 28 j 21:36	0° <del>00</del>					
retrograde	-1302 Jul 01 j 10:29	6° <del>00</del> 40'04		conjunction	-1296 May 26 j 12:25	22° <del>08</del> 17'20	-1°-14'-45
opposition	-1302 Sep 08 j 04:49	3° <del>00</del> 10'32	-2°-42'-28	minimum elong	-1296 May 26 j 12:28	22° <del>08</del> 17'21	1°14'45
min. Earth dist.	-1302 Sep 08 j 05:43	3° <del>00</del> 10'21	8.15283 AU	max. Earth dist.	-1296 May 27 j 00:42	22° <del>08</del> 21'22	9.97123 AU
	-1302 Oct 28 j 19:25	30° <del>00</del>		morning rise	-1296 Jun 13 j 16:52	24° <del>08</del> 39'30	
direct	-1302 Nov 13 j 17:12	29° <del>00</del> 45'46			-1296 Jul 30 j 08:58	0° <del>00</del>	
	-1302 Nov 29 j 13:42	0° <del>00</del>		retrograde	-1296 Sep 26 j 08:55	2° <del>00</del> 56'27	
evening set	-1301 Feb 23 j 06:58	7° <del>00</del> 42'07			-1296 Nov 25 j 06:50	30° <del>00</del>	
conjunction	-1301 Mar 12 j 18:46	9° <del>00</del> 57'45	-2°-15'-30	opposition	-1296 Dec 01 j 18:18	29° <del>08</del> 27'51	-1°-14'-19
minimum elong	-1301 Mar 12 j 18:45	9° <del>00</del> 57'44	2°15'32	min. Earth dist.	-1296 Dec 01 j 09:23	29° <del>08</del> 29'42	8.00304 AU
max. Earth dist.	-1301 Mar 12 j 18:43	9° <del>00</del> 57'43	10.09802 AU	direct	-1295 Feb 06 j 17:18	25° <del>08</del> 58'09	
morning rise	-1301 Mar 30 j 11:28	12° <del>00</del> 14'57			-1295 Apr 17 j 07:35	0° <del>00</del>	
retrograde	-1301 Jul 16 j 04:40	20° <del>00</del> 39'26		evening set	-1295 May 23 j 14:42	4° <del>00</del> 16'37	
opposition	-1301 Sep 22 j 10:01	17° <del>00</del> 09'04	-2°-53'-11	conjunction	-1295 Jun 10 j 19:43	6° <del>00</del> 37'47	0°-43'-14
min. Earth dist.	-1301 Sep 22 j 08:38	17° <del>00</del> 09'21	8.05174 AU	minimum elong	-1295 Jun 10 j 19:45	6° <del>00</del> 37'48	0°43'14
direct	-1301 Nov 27 j 15:19	13° <del>00</del> 43'05		max. Earth dist.	-1295 Jun 11 j 07:25	6° <del>00</del> 41'35	10.04130 AU
evening set	-1300 Mar 08 j 23:21	21° <del>00</del> 48'50		morning rise	-1295 Jun 28 j 23:00	8° <del>00</del> 58'21	
				retrograde	-1295 Oct 10 j 12:10	17° <del>00</del> 05'28	
conjunction	-1300 Mar 26 j 15:25	24° <del>00</del> 07'04	-2°-19'-49	opposition	-1295 Dec 15 j 21:49	13° <del>00</del> 38'19	0°-33'-19
minimum elong	-1300 Mar 26 j 15:26	24° <del>00</del> 07'04	2°19'51	min. Earth dist.	-1295 Dec 15 j 13:12	13° <del>00</del> 40'05	8.08584 AU
max. Earth dist.	-1300 Mar 26 j 19:12	24° <del>00</del> 08'18	10.00888 AU	direct	-1294 Feb 21 j 10:43	10° <del>00</del> 08'42	
morning rise	-1300 Apr 13 j 11:44	26° <del>00</del> 26'40		evening set	-1294 Jun 07 j 15:39	18° <del>00</del> 22'20	
	-1300 May 12 j 18:11	0° <del>00</del>					
retrograde	-1300 Jul 30 j 02:59	4° <del>00</del> 56'43		conjunction	-1294 Jun 25 j 19:00	20° <del>00</del> 41'27	0°-9'-41
opposition	-1300 Oct 05 j 19:56	1° <del>00</del> 25'53	-2°-53'-32	minimum elong	-1294 Jun 25 j 19:01	20° <del>00</del> 41'28	0°09'41
min. Earth dist.	-1300 Oct 05 j 15:45	1° <del>00</del> 26'45	7.97686 AU	behind sun begin	-1294 Jun 25 j 13:01	20° <del>00</del> 39'33	
	-1300 Oct 23 j 16:39	30° <del>00</del>		behind sun end	-1294 Jun 26 j 01:00	20° <del>00</del> 43'22	
direct	-1300 Dec 10 j 21:25	27° <del>00</del> 58'47		max. Earth dist.	-1294 Jun 26 j 05:52	20° <del>00</del> 44'56	10.13677 AU
	-1299 Jan 26 j 20:44	0° <del>00</del>		morning rise	-1294 Jul 13 j 19:27	22° <del>00</del> 59'35	
evening set	-1299 Mar 24 j 01:02	6° <del>00</del> 12'13			-1294 Sep 22 j 11:10	0° <del>00</del>	
				asc. node	-1294 Oct 12 j 03:58	0° <del>00</del> 47'32	
conjunction	-1299 Apr 10 j 21:24	8° <del>00</del> 32'37	-2°-15'-34	retrograde	-1294 Oct 24 j 06:19	0° <del>00</del> 55'47	
minimum elong	-1299 Apr 10 j 21:26	8° <del>00</del> 32'38	2°15'35		-1294 Nov 25 j 09:08	30° <del>00</del>	
max. Earth dist.	-1299 Apr 11 j 04:46	8° <del>00</del> 35'03	9.94906 AU	opposition	-1294 Dec 29 j 19:13	27° <del>00</del> 30'13	0°08'40
morning rise	-1299 Apr 28 j 21:05	10° <del>00</del> 54'06		min. Earth dist.	-1294 Dec 29 j 10:49	27° <del>00</del> 31'55	8.19189 AU
retrograde	-1299 Aug 14 j 02:58	19° <del>00</del> 26'10		direct	-1293 Mar 07 j 23:04	24° <del>00</del> 01'00	
opposition	-1299 Oct 20 j 08:38	15° <del>00</del> 55'17	-2°-42'-53		-1293 Jun 04 j 15:48	0° <del>00</del>	
min. Earth dist.	-1299 Oct 20 j 01:57	15° <del>00</del> 56'40	7.93329 AU	evening set	-1293 Jun 22 j 07:44	2° <del>00</del> 07'57	
direct	-1299 Dec 25 j 09:11	12° <del>00</del> 27'12					
evening set	-1298 Apr 08 j 09:14	20° <del>00</del> 45'57		conjunction	-1293 Jul 10 j 07:53	4° <del>00</del> 24'19	0°23'47
				minimum elong	-1293 Jul 10 j 07:52	4° <del>00</del> 24'19	0°23'48
conjunction	-1298 Apr 26 j 09:32	23° <del>00</del> 07'53	-2°-2'-41	max. Earth dist.	-1293 Jul 10 j 17:52	4° <del>00</del> 27'29	10.25252 AU
minimum elong	-1298 Apr 26 j 09:36	23° <del>00</del> 07'54	2°02'41	morning rise	-1293 Jul 28 j 04:07	6° <del>00</del> 39'24	
max. Earth dist.	-1298 Apr 26 j 19:44	23° <del>00</del> 11'15	9.92254 AU	retrograde	-1293 Nov 06 j 15:40	14° <del>00</del> 24'19	
morning rise	-1298 May 14 j 11:58	25° <del>00</del> 30'30		opposition	-1292 Jan 12 j 09:50	11° <del>00</del> 00'21	0°49'01
	-1298 Jun 21 j 02:58	0° <del>00</del>		min. Earth dist.	-1292 Jan 12 j 01:34	11° <del>00</del> 02'01	8.31535 AU
retrograde	-1298 Aug 29 j 02:19	4° <del>00</del> 00'46		direct	-1292 Mar 21 j 05:17	7° <del>00</del> 31'50	
opposition	-1298 Nov 03 j 22:04	0° <del>00</del> 30'15	-2°-21'-40	evening set	-1292 Jul 05 j 13:03	15° <del>00</del> 30'45	
min. Earth dist.	-1298 Nov 03 j 13:36	0° <del>00</del> 32'01	7.92367 AU				
	-1298 Nov 09 j 23:34	30° <del>00</del>		conjunction	-1292 Jul 23 j 08:50	17° <del>00</del> 43'54	0°55'05
direct	-1297 Jan 09 j 01:56	27° <del>00</del> 01'21		minimum elong	-1292 Jul 23 j 08:48	17° <del>00</del> 43'53	0°55'06
	-1297 Mar 08 j 05:14	0° <del>00</del>		max. Earth dist.	-1292 Jul 23 j 18:00	17° <del>00</del> 46'46	10.38200 AU
evening set	-1297 Apr 23 j 20:35	5° <del>00</del> 22'40		morning rise	-1292 Aug 09 j 23:54	19° <del>00</del> 55'34	
				retrograde	-1292 Nov 18 j 15:20	27° <del>00</del> 29'30	
conjunction	-1297 May 11 j 23:52	7° <del>00</del> 45'16	-1°-41'-54	opposition	-1291 Jan 24 j 17:13	24° <del>00</del> 07'06	1°25'31
minimum elong	-1297 May 11 j 23:56	7° <del>00</del> 45'17	1°41'55	min. Earth dist.	-1291 Jan 24 j 09:50	24° <del>00</del> 08'34	8.44918 AU

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 10

Attention, astronomical year style is used: The year -1291 in astronomical counting style is the year 1292 BCE in historical counting style.

direct	-1291 Apr 04 j 03:56	20° <del>33</del> 39'29		evening set	-1285 Sep 29 j 14:21	9° <del>19</del> 19'14	
evening set	-1291 Jul 19 j 07:03	28° <del>32</del> 29'37					
	-1291 Jul 31 j 14:22	0° <del>0</del>		conjunction	-1285 Oct 16 j 03:39	11° <del>14</del> 14'21	2°16'05
				minimum elong	-1285 Oct 16 j 03:40	11° <del>14</del> 14'21	2°16'04
conjunction	-1291 Aug 05 j 21:40	0° <del>0</del> 39'20	1°22'44	max. Earth dist.	-1285 Oct 15 j 22:06	11° <del>14</del> 12'44	11.13643 AU
minimum elong	-1291 Aug 05 j 21:37	0° <del>0</del> 39'19	1°22'45	morning rise	-1285 Nov 01 j 14:25	13° <del>14</del> 08'45	
max. Earth dist.	-1291 Aug 06 j 05:35	0° <del>0</del> 41'47	10.51800 AU	retrograde	-1284 Feb 08 j 22:01	20° <del>14</del> 00'01	
morning rise	-1291 Aug 23 j 07:04	2° <del>0</del> 47'29		opposition	-1284 Apr 19 j 01:50	16° <del>14</del> 43'39	2°40'23
retrograde	-1291 Dec 01 j 06:34	10° <del>0</del> 11'12		min. Earth dist.	-1284 Apr 19 j 07:20	16° <del>14</del> 42'38	9.15745 AU
opposition	-1290 Feb 06 j 17:25	6° <del>0</del> 50'18	1°56'35	direct	-1284 Jun 29 j 15:36	13° <del>14</del> 24'01	
min. Earth dist.	-1290 Feb 06 j 11:55	6° <del>0</del> 51'23	8.58625 AU	evening set	-1284 Oct 09 j 18:40	20° <del>14</del> 23'41	
direct	-1290 Apr 17 j 17:54	3° <del>0</del> 23'44					
evening set	-1290 Aug 01 j 13:17	11° <del>0</del> 04'49		conjunction	-1284 Oct 26 j 06:36	22° <del>14</del> 18'08	2°05'53
				minimum elong	-1284 Oct 26 j 06:38	22° <del>14</del> 18'08	2°05'53
conjunction	-1290 Aug 18 j 22:19	13° <del>0</del> 11'08	1°45'38	max. Earth dist.	-1284 Oct 25 j 23:23	22° <del>14</del> 16'02	11.16850 AU
minimum elong	-1290 Aug 18 j 22:16	13° <del>0</del> 11'07	1°45'40	morning rise	-1284 Nov 11 j 16:51	24° <del>14</del> 12'07	
max. Earth dist.	-1290 Aug 19 j 03:56	13° <del>0</del> 12'51	10.65363 AU		-1283 Jan 14 j 03:31	0° <del>0</del>	
	-1290 Sep 02 j 21:01	15° <del>0</del>		retrograde	-1283 Feb 19 j 09:11	1° <del>0</del> 03'29	
morning rise	-1290 Sep 05 j 02:10	15° <del>0</del> 15'54			-1283 Mar 28 j 13:39	30° <del>0</del> 18'01	
retrograde	-1290 Dec 13 j 13:57	22° <del>0</del> 30'32		opposition	-1283 Apr 30 j 21:39	27° <del>0</del> 46'58	2°25'00
opposition	-1289 Feb 19 j 11:03	19° <del>0</del> 10'57	2°21'14	min. Earth dist.	-1283 May 01 j 03:59	27° <del>0</del> 45'49	9.17627 AU
min. Earth dist.	-1289 Feb 19 j 07:42	19° <del>0</del> 11'36	8.71985 AU	direct	-1283 Jul 11 j 09:10	24° <del>0</del> 42'09	
direct	-1289 Apr 30 j 22:53	15° <del>0</del> 45'33			-1283 Oct 08 j 03:03	0° <del>0</del>	
evening set	-1289 Aug 14 j 07:52	23° <del>0</del> 17'43		evening set	-1283 Oct 20 j 20:15	1° <del>0</del> 12'45'57	
conjunction	-1289 Aug 31 j 11:29	25° <del>0</del> 20'52	2°03'09	conjunction	-1283 Nov 06 j 07:45	3° <del>0</del> 19'15	1°51'02
minimum elong	-1289 Aug 31 j 11:26	25° <del>0</del> 20'52	2°03'10	minimum elong	-1283 Nov 06 j 07:48	3° <del>0</del> 19'16	1°51'02
max. Earth dist.	-1289 Aug 31 j 14:15	25° <del>0</del> 21'42	10.78261 AU	max. Earth dist.	-1283 Nov 06 j 00:01	3° <del>0</del> 17'00	11.17450 AU
morning rise	-1289 Sep 17 j 10:19	27° <del>0</del> 22'35		morning rise	-1283 Nov 22 j 18:10	5° <del>0</del> 13'19	
	-1289 Oct 10 j 18:18	0° <del>0</del>		retrograde	-1282 Mar 03 j 00:22	12° <del>0</del> 10'62'25	
retrograde	-1289 Dec 25 j 12:24	4° <del>0</del> 19'29		opposition	-1282 May 12 j 17:51	8° <del>0</del> 49'32	2°04'19
opposition	-1288 Mar 02 j 22:28	1° <del>0</del> 11'00	2°38'55	min. Earth dist.	-1282 May 13 j 00:51	8° <del>0</del> 48'16	9.16872 AU
min. Earth dist.	-1288 Mar 02 j 20:51	1° <del>0</del> 11'19	8.84396 AU	direct	-1282 Jul 23 j 00:20	5° <del>0</del> 31'21	
	-1288 Mar 18 j 19:36	30° <del>0</del> 18'01		evening set	-1282 Oct 31 j 21:12	12° <del>0</del> 12'64'41	
direct	-1288 May 12 j 21:38	27° <del>0</del> 46'49					
	-1288 Jul 05 j 11:32	0° <del>0</del>		conjunction	-1282 Nov 17 j 08:53	14° <del>0</del> 12'21'20	1°32'03
evening set	-1288 Aug 25 j 15:56	5° <del>0</del> 10'34		minimum elong	-1282 Nov 17 j 08:55	14° <del>0</del> 12'21'21	1°32'03
				max. Earth dist.	-1282 Nov 16 j 23:57	14° <del>0</del> 18'44	11.15429 AU
conjunction	-1288 Sep 11 j 14:46	7° <del>0</del> 10'57	2°14'55		-1282 Nov 22 j 21:22	15° <del>0</del>	
minimum elong	-1288 Sep 11 j 14:44	7° <del>0</del> 10'56	2°14'55	morning rise	-1282 Dec 03 j 20:22	16° <del>0</del> 11'60'01	
max. Earth dist.	-1288 Sep 11 j 15:07	7° <del>0</del> 11'03	10.89949 AU	retrograde	-1281 Mar 14 j 16:54	23° <del>0</del> 12'26	
morning rise	-1288 Sep 28 j 09:13	9° <del>0</del> 10'02		opposition	-1281 May 24 j 15:32	19° <del>0</del> 15'54'55	1°38'55
retrograde	-1287 Jan 05 j 07:39	16° <del>0</del> 10'41		min. Earth dist.	-1281 May 24 j 23:59	19° <del>0</del> 15'53'22	9.13517 AU
opposition	-1287 Mar 15 j 04:25	12° <del>0</del> 15'30'04	2°49'30	direct	-1281 Aug 03 j 13:04	16° <del>0</del> 13'70'06	
min. Earth dist.	-1287 Mar 15 j 04:00	12° <del>0</del> 15'30'09	8.95339 AU	evening set	-1281 Nov 11 j 23:14	23° <del>0</del> 13'32'32	
direct	-1287 May 25 j 12:26	9° <del>0</del> 13'07					
evening set	-1287 Sep 06 j 14:42	16° <del>0</del> 14'61'14		conjunction	-1281 Nov 28 j 11:40	25° <del>0</del> 12'28'00	1°09'29
				minimum elong	-1281 Nov 28 j 11:42	25° <del>0</del> 12'28'01	1°09'28
conjunction	-1287 Sep 23 j 09:34	18° <del>0</del> 14'42'20	2°20'54	max. Earth dist.	-1281 Nov 28 j 01:06	25° <del>0</del> 12'24'54	11.10858 AU
minimum elong	-1287 Sep 23 j 09:33	18° <del>0</del> 14'42'20	2°20'53	morning rise	-1281 Dec 15 j 01:01	27° <del>0</del> 12'23'46	
max. Earth dist.	-1287 Sep 23 j 08:36	18° <del>0</del> 14'42'03	10.99965 AU		-1280 Jan 07 j 20:52	0° <del>0</del>	
morning rise	-1287 Oct 10 j 00:21	20° <del>0</del> 14'11'17		retrograde	-1280 Mar 25 j 14:22	4° <del>0</del> 12'25'07	
retrograde	-1286 Jan 16 j 22:52	27° <del>0</del> 13'71'12		opposition	-1280 Jun 04 j 15:47	1° <del>0</del> 12'06'43	1°09'32
opposition	-1286 Mar 27 j 06:21	24° <del>0</del> 12'20'15	2°53'04	min. Earth dist.	-1280 Jun 05 j 01:13	1° <del>0</del> 12'04'59	9.07668 AU
min. Earth dist.	-1286 Mar 27 j 07:37	24° <del>0</del> 12'20'01	9.04405 AU		-1280 Jun 20 j 02:00	30° <del>0</del> 18'11'01	
direct	-1286 Jun 06 j 17:51	20° <del>0</del> 12'58'32		direct	-1280 Aug 14 j 04:41	27° <del>0</del> 12'48'59	
evening set	-1286 Sep 18 j 05:33	28° <del>0</del> 12'07'56			-1280 Oct 05 j 19:13	0° <del>0</del>	
				evening set	-1280 Nov 22 j 04:07	4° <del>0</del> 12'46'07	
conjunction	-1286 Oct 04 j 21:13	0° <del>0</del> 14'04'17	2°21'12				
minimum elong	-1286 Oct 04 j 21:13	0° <del>0</del> 14'04'17	2°21'11	conjunction	-1280 Dec 08 j 17:57	6° <del>0</del> 12'42'50	0°44'00
	-1286 Oct 04 j 06:38	0° <del>0</del>		minimum elong	-1280 Dec 08 j 17:58	6° <del>0</del> 12'42'50	0°43'58
max. Earth dist.	-1286 Oct 04 j 18:28	0° <del>0</del> 13'03'28	11.07951 AU	max. Earth dist.	-1280 Dec 08 j 07:10	6° <del>0</del> 12'39'39	11.03872 AU
morning rise	-1286 Oct 21 j 09:24	1° <del>0</del> 15'9'40		morning rise	-1280 Dec 25 j 09:30	8° <del>0</del> 12'40'06	
retrograde	-1285 Jan 28 j 11:00	8° <del>0</del> 15'52'29		retrograde	-1279 Apr 06 j 17:31	15° <del>0</del> 12'47'58	
opposition	-1285 Apr 08 j 05:14	5° <del>0</del> 15'35'57	2°49'54	opposition	-1279 Jun 16 j 19:38	12° <del>0</del> 12'28'26	0°36'59
min. Earth dist.	-1285 Apr 08 j 08:50	5° <del>0</del> 15'35'16	9.11284 AU	min. Earth dist.	-1279 Jun 17 j 04:53	12° <del>0</del> 12'26'43	8.99509 AU
direct	-1285 Jun 18 j 19:15	2° <del>0</del> 15'20		direct	-1279 Aug 25 j 21:39	9° <del>0</del> 12'10'33	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 11

Attention, astronomical year style is used: The year -1279 in astronomical counting style is the year 1280 BCE in historical counting style.

evening set	-1279 Dec 03 j 13:49	16° $\mathring{\text{A}}$ 10'58		retrograde	-1273 Jun 24 j 23:27	0° $\mathring{\text{H}}$ 29'12	
					-1273 Jul 18 j 18:17	30° $\mathring{\text{R}}$	
conjunction	-1279 Dec 20 j 05:35	18° $\mathring{\text{A}}$ 09'20	0°16'24	opposition	-1273 Sep 02 j 00:55	27° $\approx$ 00'34	-2°-34'-12
minimum elong	-1279 Dec 20 j 05:35	18° $\mathring{\text{A}}$ 09'20	0°16'23	min. Earth dist.	-1273 Sep 02 j 03:18	27° $\approx$ 00'06	8.22940 AU
max. Earth dist.	-1279 Dec 19 j 19:33	18° $\mathring{\text{A}}$ 06'21	10.94688 AU	direct	-1273 Nov 07 j 19:21	23° $\approx$ 36'45	
morning rise	-1278 Jan 05 j 23:40	20° $\mathring{\text{A}}$ 08'29			-1272 Feb 05 j 07:05	0° $\mathring{\text{H}}$	
retrograde	-1278 Apr 19 j 04:51	27° $\mathring{\text{A}}$ 24'23		evening set	-1272 Feb 16 j 23:26	1° $\mathring{\text{H}}$ 26'58	
opposition	-1278 Jun 29 j 04:15	24° $\mathring{\text{A}}$ 03'29	0°02'16				
min. Earth dist.	-1278 Jun 29 j 12:41	24° $\mathring{\text{A}}$ 01'55	8.89307 AU	conjunction	-1272 Mar 05 j 09:11	3° $\mathring{\text{H}}$ 40'57	-2°-10'-44
desc. node	-1278 Jul 23 j 08:36	22° $\mathring{\text{A}}$ 20'27		minimum elong	-1272 Mar 05 j 09:09	3° $\mathring{\text{H}}$ 40'56	2°10'46
direct	-1278 Sep 06 j 18:02	20° $\mathring{\text{A}}$ 45'11		max. Earth dist.	-1272 Mar 05 j 07:03	3° $\mathring{\text{H}}$ 40'15	10.16752 AU
evening set	-1278 Dec 15 j 06:07	27° $\mathring{\text{A}}$ 50'31		morning rise	-1272 Mar 22 j 23:42	5° $\mathring{\text{H}}$ 56'30	
				retrograde	-1272 Jul 08 j 13:59	14° $\mathring{\text{H}}$ 16'01	
conjunction	-1277 Jan 01 j 00:01	29° $\mathring{\text{A}}$ 50'53	0°-12'-27	opposition	-1272 Sep 15 j 02:13	10° $\mathring{\text{H}}$ 46'11	-2°-49'-20
minimum elong	-1277 Jan 01 j 00:01	29° $\mathring{\text{A}}$ 50'53	0°12'29	min. Earth dist.	-1272 Sep 15 j 02:11	10° $\mathring{\text{H}}$ 46'12	8.11265 AU
behind sun begin	-1278 Dec 31 j 19:23	29° $\mathring{\text{A}}$ 49'30		direct	-1272 Nov 20 j 11:27	7° $\mathring{\text{H}}$ 20'56	
behind sun end	-1277 Jan 01 j 04:39	29° $\mathring{\text{A}}$ 52'15		evening set	-1271 Mar 02 j 09:22	15° $\mathring{\text{H}}$ 21'10	
max. Earth dist.	-1278 Dec 31 j 13:47	29° $\mathring{\text{A}}$ 47'48	10.83597 AU				
	-1277 Jan 02 j 06:17	0° $\mathring{\text{Z}}$		conjunction	-1271 Mar 19 j 23:11	17° $\mathring{\text{H}}$ 37'55	-2°-18'-52
morning rise	-1277 Jan 17 j 21:07	1° $\mathring{\text{Z}}$ 52'16		minimum elong	-1271 Mar 19 j 23:10	17° $\mathring{\text{H}}$ 37'55	2°18'54
retrograde	-1277 May 02 j 00:55	9° $\mathring{\text{Z}}$ 17'32		max. Earth dist.	-1271 Mar 19 j 23:34	17° $\mathring{\text{H}}$ 38'03	10.06076 AU
opposition	-1277 Jul 11 j 18:31	5° $\mathring{\text{Z}}$ 55'10	0°-33'-25	morning rise	-1271 Apr 06 j 17:34	19° $\mathring{\text{H}}$ 56'09	
min. Earth dist.	-1277 Jul 12 j 02:47	5° $\mathring{\text{Z}}$ 53'36	8.77376 AU	retrograde	-1271 Jul 23 j 10:04	28° $\mathring{\text{H}}$ 22'54	
direct	-1277 Sep 18 j 17:36	2° $\mathring{\text{Z}}$ 36'09		opposition	-1271 Sep 29 j 09:05	24° $\mathring{\text{H}}$ 52'13	-2°-54'-46
evening set	-1277 Dec 27 j 06:50	9° $\mathring{\text{Z}}$ 48'03		min. Earth dist.	-1271 Sep 29 j 07:10	24° $\mathring{\text{H}}$ 52'37	8.01845 AU
				direct	-1271 Dec 04 j 12:03	21° $\mathring{\text{H}}$ 25'33	
conjunction	-1276 Jan 13 j 03:09	11° $\mathring{\text{Z}}$ 50'43	0°-41'-22	evening set	-1270 Mar 17 j 05:47	29° $\mathring{\text{H}}$ 34'37	
minimum elong	-1276 Jan 13 j 03:07	11° $\mathring{\text{Z}}$ 50'43	0°41'24		-1270 Mar 20 j 12:19	0° $\mathring{\text{Y}}$	
max. Earth dist.	-1276 Jan 12 j 16:29	11° $\mathring{\text{Z}}$ 47'28	10.70948 AU				
morning rise	-1276 Jan 30 j 03:30	13° $\mathring{\text{Z}}$ 54'40		conjunction	-1270 Apr 03 j 23:53	1° $\mathring{\text{Y}}$ 53'50	-2°-18'-46
retrograde	-1276 May 14 j 03:31	21° $\mathring{\text{Z}}$ 30'28		minimum elong	-1270 Apr 03 j 23:54	1° $\mathring{\text{Y}}$ 53'51	2°18'48
opposition	-1276 Jul 23 j 15:10	18° $\mathring{\text{Z}}$ 06'32	-1°-8'-41	max. Earth dist.	-1270 Apr 04 j 03:01	1° $\mathring{\text{Y}}$ 54'52	9.97994 AU
min. Earth dist.	-1276 Jul 23 j 23:21	18° $\mathring{\text{Z}}$ 04'58	8.64122 AU	morning rise	-1270 Apr 21 j 21:59	4° $\mathring{\text{Y}}$ 14'20	
direct	-1276 Sep 30 j 00:13	14° $\mathring{\text{Z}}$ 46'33		retrograde	-1270 Aug 07 j 09:01	12° $\mathring{\text{Y}}$ 45'07	
evening set	-1275 Jan 07 j 17:23	22° $\mathring{\text{Z}}$ 06'39		opposition	-1270 Oct 13 j 19:44	9° $\mathring{\text{Y}}$ 13'59	-2°-49'-27
				min. Earth dist.	-1270 Oct 13 j 16:04	9° $\mathring{\text{Y}}$ 14'45	7.95277 AU
conjunction	-1275 Jan 24 j 16:32	24° $\mathring{\text{Z}}$ 11'55	-1°-9'-10	direct	-1270 Dec 18 j 20:07	5° $\mathring{\text{Y}}$ 46'03	
minimum elong	-1275 Jan 24 j 16:29	24° $\mathring{\text{Z}}$ 11'55	1°09'11	evening set	-1269 Apr 01 j 10:14	14° $\mathring{\text{Y}}$ 02'00	
max. Earth dist.	-1275 Jan 24 j 06:51	24° $\mathring{\text{Z}}$ 08'55	10.57226 AU				
morning rise	-1275 Feb 10 j 20:16	26° $\mathring{\text{Z}}$ 18'39		conjunction	-1269 Apr 19 j 08:31	16° $\mathring{\text{Y}}$ 23'11	-2°-10'-1
	-1275 Mar 15 j 11:41	0° $\approx$		minimum elong	-1269 Apr 19 j 08:34	16° $\mathring{\text{Y}}$ 23'12	2°10'02
retrograde	-1275 May 27 j 16:14	4° $\approx$ 05'54		max. Earth dist.	-1269 Apr 19 j 14:29	16° $\mathring{\text{Y}}$ 25'09	9.93031 AU
opposition	-1275 Aug 05 j 19:07	0° $\approx$ 40'20	-1°-41'-51	morning rise	-1269 May 07 j 09:49	18° $\mathring{\text{Y}}$ 45'18	
min. Earth dist.	-1275 Aug 06 j 02:13	0° $\approx$ 38'58	8.50139 AU	retrograde	-1269 Aug 22 j 08:17	27° $\mathring{\text{Y}}$ 16'31	
	-1275 Aug 14 j 12:09	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$		opposition	-1269 Oct 28 j 08:26	23° $\mathring{\text{Y}}$ 45'25	-2°-33'-16
direct	-1275 Oct 12 j 15:06	27° $\mathring{\text{Z}}$ 19'14		min. Earth dist.	-1269 Oct 28 j 02:52	23° $\mathring{\text{Y}}$ 46'35	7.91990 AU
	-1275 Dec 07 j 15:54	0° $\approx$		direct	-1268 Jan 02 j 11:11	20° $\mathring{\text{Y}}$ 16'26	
evening set	-1274 Jan 20 j 15:04	4° $\approx$ 48'43		evening set	-1268 Apr 15 j 19:32	28° $\mathring{\text{Y}}$ 36'43	
					-1268 Apr 26 j 10:24	0° $\mathring{\text{B}}$	
conjunction	-1274 Feb 06 j 17:29	6° $\approx$ 56'50	-1°-34'-22				
minimum elong	-1274 Feb 06 j 17:26	6° $\approx$ 56'49	1°34'24	conjunction	-1268 May 03 j 21:24	0° $\mathring{\text{B}}$ 59'06	-1°-52'-55
max. Earth dist.	-1274 Feb 06 j 10:13	6° $\approx$ 54'32	10.43104 AU	minimum elong	-1268 May 03 j 21:28	0° $\mathring{\text{B}}$ 59'08	1°52'56
morning rise	-1274 Feb 24 j 00:42	9° $\approx$ 06'30		max. Earth dist.	-1268 May 04 j 06:07	1° $\mathring{\text{B}}$ 01'59	9.91516 AU
	-1274 Apr 21 j 00:51	15° $\approx$		morning rise	-1268 May 22 j 01:02	3° $\mathring{\text{B}}$ 22'02	
retrograde	-1274 Jun 10 j 15:28	17° $\approx$ 05'25		retrograde	-1268 Sep 05 j 04:08	11° $\mathring{\text{B}}$ 50'04	
	-1274 Aug 01 j 11:44	15° $\mathring{\text{R}}$ $\approx$		opposition	-1268 Nov 10 j 20:56	8° $\mathring{\text{B}}$ 19'26	-2°-7'-9
opposition	-1274 Aug 19 j 06:27	13° $\approx$ 38'15	-2°-11'-2	min. Earth dist.	-1268 Nov 10 j 13:29	8° $\mathring{\text{B}}$ 20'59	7.92204 AU
min. Earth dist.	-1274 Aug 19 j 11:20	13° $\approx$ 37'17	8.36154 AU	direct	-1267 Jan 16 j 06:15	4° $\mathring{\text{B}}$ 49'41	
direct	-1274 Oct 25 j 12:58	10° $\approx$ 15'51		evening set	-1267 May 01 j 06:39	13° $\mathring{\text{B}}$ 11'28	
	-1273 Jan 09 j 09:56	15° $\approx$			-1267 May 15 j 03:16	15° $\mathring{\text{B}}$	
evening set	-1273 Feb 03 j 01:05	17° $\approx$ 55'33					
				conjunction	-1267 May 19 j 11:04	15° $\mathring{\text{B}}$ 34'11	-1°-28'-37
conjunction	-1273 Feb 20 j 07:03	20° $\approx$ 06'36	-1°-55'-25	minimum elong	-1267 May 19 j 11:08	15° $\mathring{\text{B}}$ 34'12	1°28'38
minimum elong	-1273 Feb 20 j 07:00	20° $\approx$ 06'35	1°55'27	max. Earth dist.	-1267 May 19 j 22:00	15° $\mathring{\text{B}}$ 37'47	9.93544 AU
max. Earth dist.	-1273 Feb 20 j 02:21	20° $\approx$ 05'06	10.29349 AU	morning rise	-1267 Jun 06 j 15:45	17° $\mathring{\text{B}}$ 56'58	
morning rise	-1273 Mar 09 j 17:50	22° $\approx$ 19'15		retrograde	-1267 Sep 19 j 18:38	26° $\mathring{\text{B}}$ 18'32	
	-1273 Jun 01 j 05:48	0° $\mathring{\text{H}}$		opposition	-1267 Nov 25 j 06:59	22° $\mathring{\text{B}}$ 48'47	-1°-33'-2

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 12

Attention, astronomical year style is used: The year -1267 in astronomical counting style is the year 1268 BCE in historical counting style.

min. Earth dist.	-1267 Nov 24 j 21:59	22° $\text{U}$ 50'39	7.95894 AU	retrograde	-1261 Dec 08 j 03:13	16° $\text{Q}$ 54'21	
direct	-1266 Jan 31 j 01:50	19° $\text{U}$ 18'35			-1260 Jan 25 j 18:25	15° $\text{R}$ $\text{Q}$	
evening set	-1266 May 16 j 16:04	27° $\text{U}$ 39'04		opposition	-1260 Feb 13 j 19:22	13° $\text{Q}$ 34'10	2°10'09
				min. Earth dist.	-1260 Feb 13 j 13:36	13° $\text{Q}$ 35'17	8.65373 AU
conjunction	-1266 Jun 03 j 21:29	0° $\text{II}$ 01'07	0°-58'-56	direct	-1260 Apr 24 j 01:58	10° $\text{Q}$ 08'18	
minimum elong	-1266 Jun 03 j 21:32	0° $\text{II}$ 01'08	0°58'57		-1260 Jul 14 j 08:46	15° $\text{Q}$	
	-1266 Jun 03 j 18:05	0° $\text{II}$		evening set	-1260 Aug 07 j 16:10	17° $\text{Q}$ 45'03	
max. Earth dist.	-1266 Jun 04 j 09:54	0° $\text{II}$ 05'10	9.98950 AU				
morning rise	-1266 Jun 22 j 01:38	2° $\text{II}$ 22'44		conjunction	-1260 Aug 24 j 22:33	19° $\text{Q}$ 49'46	1°55'22
retrograde	-1266 Oct 04 j 02:30	10° $\text{II}$ 35'20		minimum elong	-1260 Aug 24 j 22:30	19° $\text{Q}$ 49'45	1°55'24
opposition	-1266 Dec 09 j 13:05	7° $\text{II}$ 06'50	0°-53'-32	max. Earth dist.	-1260 Aug 25 j 03:58	19° $\text{Q}$ 51'25	10.72076 AU
min. Earth dist.	-1266 Dec 09 j 03:21	7° $\text{II}$ 08'52	8.02796 AU	morning rise	-1260 Sep 10 j 23:48	21° $\text{Q}$ 52'59	
direct	-1265 Feb 14 j 19:38	3° $\text{II}$ 36'35		retrograde	-1260 Dec 19 j 07:11	29° $\text{Q}$ 03'45	
evening set	-1265 May 31 j 20:20	11° $\text{II}$ 53'11		opposition	-1259 Feb 25 j 10:04	25° $\text{Q}$ 44'58	2°31'13
				min. Earth dist.	-1259 Feb 25 j 06:12	25° $\text{Q}$ 45'42	8.78629 AU
conjunction	-1265 Jun 19 j 00:56	14° $\text{II}$ 13'35	0°-26'-3	direct	-1259 May 07 j 03:39	22° $\text{Q}$ 20'28	
minimum elong	-1265 Jun 19 j 00:57	14° $\text{II}$ 13'35	0°26'04	evening set	-1259 Aug 20 j 05:56	29° $\text{Q}$ 48'31	
max. Earth dist.	-1265 Jun 19 j 13:49	14° $\text{II}$ 17'45	10.07349 AU		-1259 Aug 21 j 21:01	0° $\text{R}$ $\text{Q}$	
morning rise	-1265 Jul 07 j 02:54	16° $\text{II}$ 33'07					
retrograde	-1265 Oct 18 j 02:28	24° $\text{II}$ 35'10		conjunction	-1259 Sep 06 j 07:09	1° $\text{R}$ $\text{Q}$ 50'15	2°09'55
opposition	-1265 Dec 23 j 13:38	21° $\text{II}$ 08'12	0°-11'-38	minimum elong	-1259 Sep 06 j 07:07	1° $\text{R}$ $\text{Q}$ 50'14	2°09'56
min. Earth dist.	-1265 Dec 23 j 04:03	21° $\text{II}$ 10'10	8.12453 AU	max. Earth dist.	-1259 Sep 06 j 10:25	1° $\text{R}$ $\text{Q}$ 51'13	10.84718 AU
direct	-1264 Feb 29 j 09:15	17° $\text{II}$ 38'14		morning rise	-1259 Sep 23 j 03:31	3° $\text{R}$ $\text{Q}$ 50'33	
asc. node	-1264 Apr 06 j 13:41	18° $\text{II}$ 50'42		retrograde	-1259 Dec 31 j 05:26	10° $\text{R}$ $\text{Q}$ 54'19	
evening set	-1264 Jun 14 j 16:54	25° $\text{II}$ 48'53		opposition	-1258 Mar 09 j 19:14	7° $\text{R}$ $\text{Q}$ 36'40	2°45'12
				min. Earth dist.	-1258 Mar 09 j 18:02	7° $\text{R}$ $\text{Q}$ 36'54	8.90630 AU
conjunction	-1264 Jul 02 j 18:57	28° $\text{II}$ 06'49	0°07'47	direct	-1258 May 19 j 21:18	4° $\text{R}$ $\text{Q}$ 13'32	
minimum elong	-1264 Jul 02 j 18:57	28° $\text{II}$ 06'49	0°07'47	evening set	-1258 Sep 01 j 09:46	11° $\text{R}$ $\text{Q}$ 33'30	
behind sun begin	-1264 Jul 02 j 12:23	28° $\text{II}$ 04'44					
behind sun end	-1264 Jul 03 j 01:31	28° $\text{II}$ 08'54		conjunction	-1258 Sep 18 j 06:24	13° $\text{R}$ $\text{Q}$ 32'39	2°18'39
max. Earth dist.	-1264 Jul 03 j 07:09	28° $\text{II}$ 10'43	10.18193 AU	minimum elong	-1258 Sep 18 j 06:22	13° $\text{R}$ $\text{Q}$ 32'39	2°18'39
	-1264 Jul 17 j 14:18	0° $\text{U}$		max. Earth dist.	-1258 Sep 18 j 06:21	13° $\text{R}$ $\text{Q}$ 32'39	10.95851 AU
morning rise	-1264 Jul 20 j 17:21	0° $\text{U}$ 23'34		morning rise	-1258 Oct 04 j 22:51	15° $\text{R}$ $\text{Q}$ 30'35	
retrograde	-1264 Oct 30 j 16:57	8° $\text{U}$ 14'17		retrograde	-1257 Jan 11 j 21:25	22° $\text{R}$ $\text{Q}$ 28'49	
opposition	-1263 Jan 05 j 07:35	4° $\text{U}$ 49'03	0°29'50	opposition	-1257 Mar 21 j 23:40	19° $\text{R}$ $\text{Q}$ 12'01	2°52'03
min. Earth dist.	-1263 Jan 04 j 22:53	4° $\text{U}$ 50'49	8.24257 AU	min. Earth dist.	-1257 Mar 22 j 00:35	19° $\text{R}$ $\text{Q}$ 11'50	9.00871 AU
direct	-1263 Mar 14 j 18:42	1° $\text{U}$ 19'43		direct	-1257 Jun 01 j 07:41	15° $\text{R}$ $\text{Q}$ 50'09	
evening set	-1263 Jun 29 j 03:45	9° $\text{U}$ 22'55		evening set	-1257 Sep 13 j 04:46	23° $\text{R}$ $\text{Q}$ 02'53	
conjunction	-1263 Jul 17 j 01:50	11° $\text{U}$ 37'47	0°40'18	conjunction	-1257 Sep 29 j 21:46	25° $\text{R}$ $\text{Q}$ 00'00	2°21'37
minimum elong	-1263 Jul 17 j 01:48	11° $\text{U}$ 37'47	0°40'18	minimum elong	-1257 Sep 29 j 21:46	25° $\text{R}$ $\text{Q}$ 00'00	2°21'36
max. Earth dist.	-1263 Jul 17 j 12:22	11° $\text{U}$ 41'07	10.30811 AU	max. Earth dist.	-1257 Sep 29 j 19:05	24° $\text{R}$ $\text{Q}$ 59'13	11.05008 AU
morning rise	-1263 Aug 03 j 19:35	13° $\text{U}$ 51'16		morning rise	-1257 Oct 16 j 11:15	26° $\text{R}$ $\text{Q}$ 56'06	
retrograde	-1263 Nov 12 j 20:17	21° $\text{U}$ 30'42			-1257 Nov 13 j 19:54	0° $\text{U}$	
opposition	-1262 Jan 18 j 18:33	18° $\text{U}$ 07'14	1°08'27	retrograde	-1256 Jan 23 j 11:28	3° $\text{U}$ 50'24	
min. Earth dist.	-1262 Jan 18 j 10:58	18° $\text{U}$ 08'45	8.37499 AU	opposition	-1256 Apr 02 j 00:15	0° $\text{U}$ 34'08	2°52'01
direct	-1262 Mar 28 j 21:48	14° $\text{U}$ 38'51		min. Earth dist.	-1256 Apr 02 j 02:47	0° $\text{U}$ 33'40	9.08897 AU
evening set	-1262 Jul 13 j 03:32	22° $\text{U}$ 33'36			-1256 Apr 09 j 17:39	30° $\text{R}$ $\text{Q}$	
				direct	-1256 Jun 12 j 13:51	27° $\text{R}$ $\text{Q}$ 13'26	
conjunction	-1262 Jul 30 j 20:37	24° $\text{U}$ 45'04	1°09'53		-1256 Aug 12 j 09:14	0° $\text{U}$	
minimum elong	-1262 Jul 30 j 20:34	24° $\text{U}$ 45'03	1°09'54	evening set	-1256 Sep 23 j 16:49	4° $\text{U}$ 20'04	
max. Earth dist.	-1262 Jul 31 j 05:05	24° $\text{U}$ 47'42	10.44469 AU				
morning rise	-1262 Aug 17 j 08:59	26° $\text{U}$ 55'02		conjunction	-1256 Oct 10 j 07:13	6° $\text{U}$ 15'44	2°19'00
	-1262 Sep 13 j 02:41	0° $\text{Q}$		minimum elong	-1256 Oct 10 j 07:14	6° $\text{U}$ 15'44	2°18'59
retrograde	-1262 Nov 25 j 15:09	4° $\text{Q}$ 23'51		max. Earth dist.	-1256 Oct 10 j 02:48	6° $\text{U}$ 14'26	11.11782 AU
opposition	-1261 Jan 31 j 22:24	1° $\text{Q}$ 02'06	1°42'19	morning rise	-1256 Oct 26 j 18:33	8° $\text{U}$ 10'33	
min. Earth dist.	-1261 Jan 31 j 15:33	1° $\text{Q}$ 03'27	8.51440 AU	retrograde	-1255 Feb 03 j 00:28	15° $\text{U}$ 02'35	
	-1261 Feb 14 j 06:43	30° $\text{R}$ $\text{U}$		opposition	-1255 Apr 13 j 22:10	11° $\text{U}$ 46'34	2°45'26
direct	-1261 Apr 11 j 16:39	27° $\text{U}$ 34'54		min. Earth dist.	-1255 Apr 14 j 02:32	11° $\text{U}$ 45'46	9.14377 AU
	-1261 Jun 05 j 17:37	0° $\text{Q}$		direct	-1255 Jun 24 j 12:00	8° $\text{U}$ 26'55	
evening set	-1261 Jul 26 j 15:39	5° $\text{Q}$ 20'41		evening set	-1255 Oct 04 j 23:40	15° $\text{U}$ 28'45	
conjunction	-1261 Aug 13 j 03:23	7° $\text{Q}$ 28'42	1°35'12	conjunction	-1255 Oct 21 j 12:17	17° $\text{U}$ 23'30	2°11'08
minimum elong	-1261 Aug 13 j 03:20	7° $\text{Q}$ 28'41	1°35'13	minimum elong	-1255 Oct 21 j 12:19	17° $\text{U}$ 23'30	2°11'08
max. Earth dist.	-1261 Aug 13 j 10:16	7° $\text{Q}$ 30'49	10.58453 AU	max. Earth dist.	-1255 Oct 21 j 05:50	17° $\text{U}$ 21'37	11.15940 AU
morning rise	-1261 Aug 30 j 10:06	9° $\text{Q}$ 35'10		morning rise	-1255 Nov 06 j 22:32	19° $\text{U}$ 17'39	
	-1261 Oct 21 j 23:54	15° $\text{Q}$		retrograde	-1254 Feb 14 j 12:02	26° $\text{U}$ 09'06	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 13

Attention, astronomical year style is used: The year -1254 in astronomical counting style is the year 1255 BCE in historical counting style.

opposition	-1254 Apr 25 j 19:01	22°♄53'03	2°32'45			-1248 Feb 11 j 15:15	0°♄	
min. Earth dist.	-1254 Apr 26 j 01:44	22°♄51'49	9.17178 AU	retrograde		-1248 Apr 25 j 11:03	4°♄04'10	
direct	-1254 Jul 06 j 06:23	19°♄34'11		opposition		-1248 Jul 05 j 08:32	0°♄41'54	0°-16'-56
evening set	-1254 Oct 16 j 02:58	26°♄32'34		min. Earth dist.		-1248 Jul 05 j 18:01	0°♄40'07	8.81024 AU
						-1248 Jul 14 j 16:36	30°♄	
conjunction	-1254 Nov 01 j 14:33	28°♄26'57	1°58'24	direct		-1248 Sep 12 j 15:37	27°♄22'35	
minimum elong	-1254 Nov 01 j 14:35	28°♄26'58	1°58'24			-1248 Nov 08 j 07:42	0°♄	
max. Earth dist.	-1254 Nov 01 j 05:33	28°♄24'20	11.17418 AU	evening set		-1248 Dec 21 j 02:59	4°♄31'58	
	-1254 Nov 14 j 23:29	0°♄						
morning rise	-1254 Nov 18 j 00:51	0°♄20'59		conjunction		-1247 Jan 06 j 22:19	6°♄33'46	0°-28'-7
retrograde	-1253 Feb 26 j 01:00	7°♄13'29		minimum elong		-1247 Jan 06 j 22:18	6°♄33'45	0°28'09
opposition	-1253 May 07 j 15:34	3°♄57'03	2°14'28	max. Earth dist.		-1247 Jan 06 j 12:16	6°♄30'43	10.74854 AU
min. Earth dist.	-1253 May 08 j 00:06	3°♄55'29	9.17278 AU	morning rise		-1247 Jan 23 j 21:08	8°♄36'42	
direct	-1253 Jul 17 j 23:30	0°♄38'43		retrograde		-1247 May 08 j 10:29	16°♄08'14	
evening set	-1253 Oct 27 j 04:36	7°♄35'03		opposition		-1247 Jul 18 j 02:23	12°♄44'21	0°-52'-39
				min. Earth dist.		-1247 Jul 18 j 10:13	12°♄42'51	8.68277 AU
conjunction	-1253 Nov 12 j 16:05	9°♄29'35	1°41'17	direct		-1247 Sep 24 j 19:12	9°♄24'12	
minimum elong	-1253 Nov 12 j 16:07	9°♄29'35	1°41'16	evening set		-1246 Jan 02 j 08:54	16°♄41'01	
max. Earth dist.	-1253 Nov 12 j 05:40	9°♄26'32	11.16216 AU					
morning rise	-1253 Nov 29 j 03:10	11°♄24'02		conjunction		-1246 Jan 19 j 06:53	18°♄45'17	0°-56'-38
	-1252 Jan 02 j 09:19	15°♄		minimum elong		-1246 Jan 19 j 06:51	18°♄45'17	0°56'39
retrograde	-1252 Mar 08 j 15:41	18°♄19'08		max. Earth dist.		-1246 Jan 18 j 22:03	18°♄42'34	10.61613 AU
opposition	-1252 May 18 j 12:40	15°♄01'58	1°51'11	morning rise		-1246 Feb 05 j 08:59	20°♄50'54	
	-1252 May 18 j 23:28	15°♄		retrograde		-1246 May 21 j 20:08	28°♄33'29	
min. Earth dist.	-1252 May 18 j 21:47	15°♄00'18	9.14706 AU	opposition		-1246 Jul 31 j 03:04	25°♄07'59	-1°-27'-3
direct	-1252 Jul 28 j 14:52	11°♄43'57		min. Earth dist.		-1246 Jul 31 j 09:18	25°♄06'47	8.54713 AU
	-1252 Oct 02 j 09:43	15°♄		direct		-1246 Oct 07 j 05:35	21°♄46'50	
evening set	-1252 Nov 06 j 06:16	18°♄39'42		evening set		-1245 Jan 15 j 01:32	29°♄12'25	
						-1245 Jan 21 j 11:54	0°♄	
conjunction	-1252 Nov 22 j 18:27	20°♄34'51	1°20'18					
minimum elong	-1252 Nov 22 j 18:29	20°♄34'52	1°20'17	conjunction		-1245 Feb 01 j 02:25	1°♄19'24	-1°-23'-14
max. Earth dist.	-1252 Nov 22 j 08:01	20°♄31'48	11.12390 AU	minimum elong		-1245 Feb 01 j 02:23	1°♄19'23	1°23'16
morning rise	-1252 Dec 09 j 06:50	22°♄30'11		max. Earth dist.		-1245 Jan 31 j 18:26	1°♄16'54	10.47832 AU
retrograde	-1251 Mar 20 j 13:01	29°♄29'31		morning rise		-1245 Feb 18 j 08:04	3°♄27'53	
opposition	-1251 May 30 j 11:57	26°♄11'23	1°23'33	retrograde		-1245 Jun 04 j 15:18	11°♄21'59	
min. Earth dist.	-1251 May 30 j 21:13	26°♄09'41	9.09565 AU	opposition		-1245 Aug 13 j 11:11	7°♄54'57	-1°-58'-20
direct	-1251 Aug 09 j 06:36	22°♄53'25		min. Earth dist.		-1245 Aug 13 j 16:12	7°♄53'57	8.40942 AU
evening set	-1251 Nov 17 j 09:50	29°♄50'04		direct		-1245 Oct 19 j 23:01	4°♄32'37	
	-1251 Nov 18 j 20:12	0°♄		evening set		-1244 Jan 28 j 05:55	12°♄08'03	
conjunction	-1251 Dec 03 j 23:06	1°♄46'19	0°56'04	conjunction		-1244 Feb 14 j 10:03	14°♄17'52	-1°-46'-24
minimum elong	-1251 Dec 03 j 23:08	1°♄46'20	0°56'03	minimum elong		-1244 Feb 14 j 10:01	14°♄17'51	1°46'26
max. Earth dist.	-1251 Dec 03 j 11:59	1°♄43'03	11.06079 AU	max. Earth dist.		-1244 Feb 14 j 04:02	14°♄15'58	10.34163 AU
morning rise	-1251 Dec 20 j 13:31	3°♄42'59				-1244 Feb 19 j 22:55	15°♄	
retrograde	-1250 Apr 01 j 13:10	10°♄48'08		morning rise		-1244 Mar 02 j 19:18	16°♄29'19	
opposition	-1250 Jun 11 j 14:25	7°♄28'49	0°52'21	retrograde		-1244 Jun 17 j 18:37	24°♄34'44	
min. Earth dist.	-1250 Jun 12 j 00:13	7°♄27'00	9.02048 AU	opposition		-1244 Aug 26 j 02:42	21°♄06'19	-2°-24'-31
direct	-1250 Aug 20 j 20:49	4°♄10'37		min. Earth dist.		-1244 Aug 26 j 06:03	21°♄05'38	8.27653 AU
evening set	-1250 Nov 28 j 17:20	11°♄09'52		direct		-1244 Nov 01 j 02:06	17°♄42'45	
				evening set		-1243 Feb 09 j 22:38	25°♄28'34	
conjunction	-1250 Dec 15 j 08:08	13°♄07'35	0°29'21					
minimum elong	-1250 Dec 15 j 08:09	13°♄07'35	0°29'19	conjunction		-1243 Feb 27 j 06:29	27°♄41'18	-2°-4'-32
max. Earth dist.	-1250 Dec 14 j 20:03	13°♄04'00	10.97513 AU	minimum elong		-1243 Feb 27 j 06:27	27°♄41'17	2°04'34
morning rise	-1249 Jan 01 j 01:10	15°♄06'00		max. Earth dist.		-1243 Feb 27 j 03:29	27°♄40'20	10.21335 AU
retrograde	-1249 Apr 13 j 19:34	22°♄18'32		morning rise		-1243 Mar 16 j 19:24	29°♄55'39	
opposition	-1249 Jun 23 j 20:53	18°♄57'49	0°18'29			-1243 Mar 17 j 09:13	0°♄	
min. Earth dist.	-1249 Jun 24 j 07:11	18°♄55'53	8.92423 AU	retrograde		-1243 Jul 02 j 05:24	8°♄11'24	
direct	-1249 Sep 01 j 16:27	15°♄39'09		opposition		-1243 Sep 09 j 01:17	4°♄41'49	-2°-43'-32
evening set	-1249 Dec 10 j 06:29	22°♄42'40		min. Earth dist.		-1243 Sep 09 j 02:18	4°♄41'37	8.15588 AU
				direct		-1243 Nov 14 j 15:10	1°♄17'00	
conjunction	-1249 Dec 26 j 23:20	24°♄42'15	0°00'58	evening set		-1242 Feb 24 j 03:31	9°♄13'05	
minimum elong	-1249 Dec 26 j 23:21	24°♄42'16	0°00'57					
behind sun begin	-1249 Dec 26 j 16:21	24°♄40'11		conjunction		-1242 Mar 13 j 15:30	11°♄28'40	-2°-16'-5
behind sun end	-1249 Dec 27 j 06:21	24°♄44'20		minimum elong		-1242 Mar 13 j 15:29	11°♄28'40	2°16'07
max. Earth dist.	-1249 Dec 26 j 11:49	24°♄38'48	10.86981 AU	max. Earth dist.		-1242 Mar 13 j 16:09	11°♄28'53	10.10099 AU
desc. node	-1248 Jan 08 j 01:37	26°♄09'12		morning rise		-1242 Mar 31 j 08:09	13°♄45'48	
morning rise	-1248 Jan 12 j 19:13	26°♄42'47		retrograde		-1242 Jul 16 j 23:53	22°♄09'55	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 14

Attention, astronomical year style is used: The year -1242 in astronomical counting style is the year 1243 BCE in historical counting style.

opposition	-1242 Sep 23 j 06:02	18° <del>✕</del> 39'30	-2°-53'-32	conjunction	-1236 Jun 11 j 15:09	8° <del>Π</del> 05'25	0°-41'-3
min. Earth dist.	-1242 Sep 23 j 04:14	18° <del>✕</del> 39'52	8.05465 AU	minimum elong	-1236 Jun 11 j 15:11	8° <del>Π</del> 05'26	0°41'03
direct	-1242 Nov 28 j 11:47	15° <del>✕</del> 13'29		max. Earth dist.	-1236 Jun 12 j 02:16	8° <del>Π</del> 09'02	10.04428 AU
evening set	-1241 Mar 10 j 19:47	23° <del>✕</del> 18'57		morning rise	-1236 Jun 29 j 18:25	10° <del>Π</del> 25'55	
				retrograde	-1236 Oct 11 j 06:19	18° <del>Π</del> 32'42	
conjunction	-1241 Mar 28 j 12:01	25° <del>✕</del> 37'09	-2°-19'-49	opposition	-1236 Dec 16 j 16:26	15° <del>Π</del> 05'37	0°-30'-32
minimum elong	-1241 Mar 28 j 12:02	25° <del>✕</del> 37'09	2°19'50	min. Earth dist.	-1236 Dec 16 j 07:41	15° <del>Π</del> 07'24	8.08874 AU
max. Earth dist.	-1241 Mar 28 j 16:09	25° <del>✕</del> 38'30	10.01162 AU	direct	-1235 Feb 22 j 05:41	11° <del>Π</del> 36'02	
morning rise	-1241 Apr 15 j 08:18	27° <del>✕</del> 56'42		evening set	-1235 Jun 08 j 10:49	19° <del>Π</del> 49'31	
	-1241 May 01 j 18:30	0° <del>Υ</del>					
retrograde	-1241 Jul 31 j 22:57	6° <del>Υ</del> 26'21		conjunction	-1235 Jun 26 j 14:10	22° <del>Π</del> 08'35	0°-7'-26
opposition	-1241 Oct 07 j 15:28	2° <del>Υ</del> 55'30	-2°-53'-8	minimum elong	-1235 Jun 26 j 14:11	22° <del>Π</del> 08'35	0°07'26
min. Earth dist.	-1241 Oct 07 j 10:57	2° <del>Υ</del> 56'26	7.97940 AU	behind sun begin	-1235 Jun 26 j 07:31	22° <del>Π</del> 06'28	
	-1241 Nov 19 j 00:11	30° <del>℞</del>		behind sun end	-1235 Jun 26 j 20:51	22° <del>Π</del> 10'43	
direct	-1241 Dec 12 j 16:12	29° <del>✕</del> 28'22		max. Earth dist.	-1235 Jun 27 j 00:57	22° <del>Π</del> 12'02	10.13941 AU
	-1240 Jan 05 j 05:34	0° <del>Υ</del>		morning rise	-1235 Jul 14 j 14:30	24° <del>Π</del> 26'39	
evening set	-1240 Mar 24 j 21:16	7° <del>Υ</del> 41'36			-1235 Sep 03 j 03:33	0° <del>♄</del>	
				asc. node	-1235 Sep 17 j 12:50	1° <del>♄</del> 05'49	
conjunction	-1240 Apr 11 j 17:44	10° <del>Υ</del> 01'58	-2°-14'-58	retrograde	-1235 Oct 25 j 01:08	2° <del>♄</del> 22'37	
minimum elong	-1240 Apr 11 j 17:46	10° <del>Υ</del> 01'59	2°14'59		-1235 Dec 17 j 11:39	30° <del>℞</del> <del>Π</del>	
max. Earth dist.	-1240 Apr 12 j 00:51	10° <del>Υ</del> 04'19	9.95139 AU	opposition	-1235 Dec 30 j 13:37	28° <del>Π</del> 57'07	0°11'28
morning rise	-1240 Apr 29 j 17:25	12° <del>Υ</del> 23'25		min. Earth dist.	-1235 Dec 30 j 04:56	28° <del>Π</del> 58'53	8.19405 AU
retrograde	-1240 Aug 14 j 23:46	20° <del>Υ</del> 55'07		direct	-1234 Mar 08 j 18:08	25° <del>Π</del> 27'57	
opposition	-1240 Oct 21 j 03:57	17° <del>Υ</del> 24'14	-2°-41'-46		-1234 May 23 j 11:37	0° <del>♄</del>	
min. Earth dist.	-1240 Oct 20 j 21:24	17° <del>Υ</del> 25'36	7.93538 AU	evening set	-1234 Jun 23 j 02:47	3° <del>♄</del> 34'52	
direct	-1240 Dec 26 j 04:02	13° <del>Υ</del> 56'07					
evening set	-1239 Apr 09 j 05:11	22° <del>Υ</del> 14'46		conjunction	-1234 Jul 11 j 02:55	5° <del>♄</del> 51'12	0°26'00
				minimum elong	-1234 Jul 11 j 02:54	5° <del>♄</del> 51'12	0°26'01
conjunction	-1239 Apr 27 j 05:30	24° <del>Υ</del> 36'40	-2°-1'-32	max. Earth dist.	-1234 Jul 11 j 13:11	5° <del>♄</del> 54'28	10.25410 AU
minimum elong	-1239 Apr 27 j 05:34	24° <del>Υ</del> 36'41	2°01'32	morning rise	-1234 Jul 28 j 22:55	8° <del>♄</del> 06'14	
max. Earth dist.	-1239 Apr 27 j 15:01	24° <del>Υ</del> 39'48	9.92451 AU	retrograde	-1234 Nov 07 j 10:05	15° <del>♄</del> 51'05	
morning rise	-1239 May 15 j 08:02	26° <del>Υ</del> 59'17		opposition	-1233 Jan 13 j 04:18	12° <del>♄</del> 27'11	0°51'41
	-1239 Jun 08 j 15:49	0° <del>♄</del>		min. Earth dist.	-1233 Jan 12 j 20:10	12° <del>♄</del> 28'49	8.31625 AU
retrograde	-1239 Aug 29 j 22:30	5° <del>♄</del> 29'14		direct	-1233 Mar 23 j 00:06	8° <del>♄</del> 58'44	
opposition	-1239 Nov 04 j 17:12	1° <del>♄</del> 58'46	-2°-19'-55	evening set	-1233 Jul 07 j 08:06	16° <del>♄</del> 57'43	
min. Earth dist.	-1239 Nov 04 j 09:21	2° <del>♄</del> 00'24	7.92551 AU				
	-1239 Nov 29 j 23:58	30° <del>℞</del> <del>Υ</del>		conjunction	-1233 Jul 25 j 03:44	19° <del>♄</del> 10'50	0°57'09
direct	-1238 Jan 09 j 21:38	28° <del>Υ</del> 29'51		minimum elong	-1233 Jul 25 j 03:42	19° <del>♄</del> 10'49	0°57'09
	-1238 Feb 19 j 08:55	0° <del>♄</del>		max. Earth dist.	-1233 Jul 25 j 13:05	19° <del>♄</del> 13'46	10.38220 AU
evening set	-1238 Apr 24 j 16:28	6° <del>♄</del> 51'09		morning rise	-1233 Aug 11 j 18:30	21° <del>♄</del> 22'27	
				retrograde	-1233 Nov 20 j 10:42	28° <del>♄</del> 56'29	
conjunction	-1238 May 12 j 19:45	9° <del>♄</del> 13'43	-1°-40'-17	opposition	-1232 Jan 26 j 11:54	25° <del>♄</del> 34'11	1°27'55
minimum elong	-1238 May 12 j 19:49	9° <del>♄</del> 13'44	1°40'17	min. Earth dist.	-1232 Jan 26 j 05:17	25° <del>♄</del> 35'30	8.44877 AU
max. Earth dist.	-1238 May 13 j 06:41	9° <del>♄</del> 17'20	9.93245 AU	direct	-1232 Apr 04 j 21:57	22° <del>♄</del> 06'36	
morning rise	-1238 May 31 j 00:01	11° <del>♄</del> 36'35		evening set	-1232 Jul 20 j 02:08	29° <del>♄</del> 56'55	
	-1238 Jun 27 j 16:28	15° <del>♄</del>			-1232 Jul 20 j 12:18	0° <del>♄</del>	
retrograde	-1238 Sep 13 j 15:53	20° <del>♄</del> 01'14					
opposition	-1238 Nov 19 j 04:51	16° <del>♄</del> 31'35	-1°-49'-7	conjunction	-1232 Aug 06 j 16:28	2° <del>♄</del> 06'37	1°24'33
min. Earth dist.	-1238 Nov 18 j 20:27	16° <del>♄</del> 33'20	7.94993 AU	minimum elong	-1232 Aug 06 j 16:25	2° <del>♄</del> 06'36	1°24'33
	-1238 Dec 08 j 04:12	15° <del>℞</del> <del>♄</del>		max. Earth dist.	-1232 Aug 06 j 23:48	2° <del>♄</del> 08'53	10.51689 AU
direct	-1237 Jan 24 j 17:30	13° <del>♄</del> 02'06		morning rise	-1232 Aug 24 j 01:42	4° <del>♄</del> 14'45	
	-1237 Mar 12 j 14:17	15° <del>♄</del>		retrograde	-1232 Dec 02 j 02:09	11° <del>♄</del> 38'40	
evening set	-1237 May 10 j 03:17	21° <del>♄</del> 23'11		opposition	-1231 Feb 07 j 12:21	8° <del>♄</del> 17'50	1°58'38
				min. Earth dist.	-1231 Feb 07 j 07:39	8° <del>♄</del> 18'45	8.58462 AU
conjunction	-1237 May 28 j 08:12	23° <del>♄</del> 45'29	-1°-12'-46	direct	-1231 Apr 18 j 11:45	4° <del>♄</del> 51'17	
minimum elong	-1237 May 28 j 08:15	23° <del>♄</del> 45'31	1°12'47	evening set	-1231 Aug 02 j 08:29	12° <del>♄</del> 32'39	
max. Earth dist.	-1237 May 28 j 19:32	23° <del>♄</del> 49'12	9.97373 AU				
morning rise	-1237 Jun 15 j 12:46	26° <del>♄</del> 07'37		conjunction	-1231 Aug 19 j 17:15	14° <del>♄</del> 38'58	1°47'08
	-1237 Jul 17 j 18:31	0° <del>Π</del>		minimum elong	-1231 Aug 19 j 17:12	14° <del>♄</del> 38'57	1°47'09
retrograde	-1237 Sep 28 j 02:53	4° <del>Π</del> 24'13		max. Earth dist.	-1231 Aug 19 j 21:46	14° <del>♄</del> 40'21	10.65133 AU
opposition	-1237 Dec 03 j 13:09	0° <del>Π</del> 55'42	-1°-11'-42		-1231 Aug 22 j 14:10	15° <del>♄</del>	
min. Earth dist.	-1237 Dec 03 j 04:34	0° <del>Π</del> 57'29	8.00583 AU	morning rise	-1231 Sep 05 j 21:02	16° <del>♄</del> 43'45	
	-1237 Dec 14 j 20:59	30° <del>℞</del> <del>♄</del>		retrograde	-1231 Dec 14 j 07:32	23° <del>♄</del> 58'40	
direct	-1236 Feb 08 j 13:01	27° <del>♄</del> 26'00		opposition	-1230 Feb 20 j 06:12	20° <del>♄</del> 39'07	2°22'51
	-1236 Apr 02 j 23:41	0° <del>Π</del>		min. Earth dist.	-1230 Feb 20 j 03:00	20° <del>♄</del> 39'44	8.71706 AU
evening set	-1236 May 24 j 10:10	5° <del>Π</del> 44'18		direct	-1230 May 01 j 19:18	17° <del>♄</del> 13'44	
				evening set	-1230 Aug 15 j 03:15	24° <del>♄</del> 46'13	



# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 15

Attention, astronomical year style is used: The year -1230 in astronomical counting style is the year 1231 BCE in historical counting style.

conjunction	-1230 Sep 01 j 06:42	26° $\Omega$ 49'23	2°04'14	conjunction	-1224 Nov 07 j 04:23	4° $\mathbb{M}$ 51'39	1°49'26
minimum elong	-1230 Sep 01 j 06:39	26° $\Omega$ 49'22	2°04'16	minimum elong	-1224 Nov 07 j 04:26	4° $\mathbb{M}$ 51'40	1°49'26
max. Earth dist.	-1230 Sep 01 j 09:04	26° $\Omega$ 50'06	10.77923 AU	max. Earth dist.	-1224 Nov 06 j 20:57	4° $\mathbb{M}$ 49'29	11.16843 AU
morning rise	-1230 Sep 18 j 05:25	28° $\Omega$ 51'07		morning rise	-1224 Nov 23 j 14:54	6° $\mathbb{M}$ 45'50	
	-1230 Sep 28 j 02:42	0° $\mathbb{N}$		retrograde	-1223 Mar 03 j 21:14	13° $\mathbb{M}$ 39'15	
retrograde	-1230 Dec 26 j 08:39	5° $\mathbb{N}$ 58'24		opposition	-1223 May 13 j 15:35	10° $\mathbb{M}$ 22'16	2°02'08
opposition	-1229 Mar 04 j 18:01	2° $\mathbb{N}$ 39'54	2°40'02	min. Earth dist.	-1223 May 13 j 22:47	10° $\mathbb{M}$ 20'57	9.16274 AU
min. Earth dist.	-1229 Mar 04 j 15:50	2° $\mathbb{N}$ 40'19	8.84008 AU	direct	-1223 Jul 23 j 20:15	7° $\mathbb{M}$ 04'01	
	-1229 Apr 14 j 04:01	30° $\mathbb{R}$ $\Omega$		evening set	-1223 Nov 01 j 17:59	13° $\mathbb{M}$ 59'31	
direct	-1229 May 14 j 17:48	29° $\Omega$ 15'45			-1223 Nov 10 j 11:41	15° $\mathbb{M}$	
	-1229 Jun 14 j 00:12	0° $\mathbb{N}$					
evening set	-1229 Aug 27 j 11:29	6° $\mathbb{N}$ 39'47		conjunction	-1223 Nov 18 j 05:40	15° $\mathbb{M}$ 54'15	1°30'05
				minimum elong	-1223 Nov 18 j 05:43	15° $\mathbb{M}$ 54'16	1°30'04
conjunction	-1229 Sep 13 j 10:16	8° $\mathbb{N}$ 40'13	2°15'35	max. Earth dist.	-1223 Nov 17 j 20:16	15° $\mathbb{M}$ 51'31	11.14854 AU
minimum elong	-1229 Sep 13 j 10:14	8° $\mathbb{N}$ 40'13	2°15'35	morning rise	-1223 Dec 04 j 17:25	17° $\mathbb{M}$ 49'03	
max. Earth dist.	-1229 Sep 13 j 11:20	8° $\mathbb{N}$ 40'32	10.89516 AU	retrograde	-1222 Mar 15 j 14:26	24° $\mathbb{M}$ 45'48	
morning rise	-1229 Sep 30 j 04:30	10° $\mathbb{N}$ 39'20		opposition	-1222 May 25 j 13:35	21° $\mathbb{M}$ 28'11	1°36'20
retrograde	-1228 Jan 07 j 04:15	17° $\mathbb{N}$ 40'22		min. Earth dist.	-1222 May 25 j 22:09	21° $\mathbb{M}$ 26'36	9.12961 AU
opposition	-1228 Mar 16 j 00:28	14° $\mathbb{N}$ 22'43	2°50'03	direct	-1222 Aug 04 j 11:21	18° $\mathbb{M}$ 10'17	
min. Earth dist.	-1228 Mar 15 j 23:59	14° $\mathbb{N}$ 22'48	8.94865 AU	evening set	-1222 Nov 12 j 20:06	25° $\mathbb{M}$ 05'52	
direct	-1228 May 26 j 06:54	10° $\mathbb{N}$ 59'47					
evening set	-1228 Sep 07 j 10:26	18° $\mathbb{N}$ 16'09		conjunction	-1222 Nov 29 j 08:41	27° $\mathbb{M}$ 01'25	1°07'14
				minimum elong	-1222 Nov 29 j 08:43	27° $\mathbb{M}$ 01'26	1°07'12
conjunction	-1228 Sep 24 j 05:15	20° $\mathbb{N}$ 14'19	2°21'06	max. Earth dist.	-1222 Nov 28 j 22:44	26° $\mathbb{M}$ 58'30	11.10335 AU
minimum elong	-1228 Sep 24 j 05:14	20° $\mathbb{N}$ 14'19	2°21'05	morning rise	-1222 Dec 15 j 22:12	28° $\mathbb{M}$ 57'18	
max. Earth dist.	-1228 Sep 24 j 04:30	20° $\mathbb{N}$ 14'06	10.99454 AU		-1222 Dec 25 j 03:50	0° $\mathbb{N}$	
morning rise	-1228 Oct 10 j 19:56	22° $\mathbb{N}$ 11'20		retrograde	-1221 Mar 27 j 11:53	5° $\mathbb{N}$ 59'00	
retrograde	-1227 Jan 17 j 19:16	29° $\mathbb{N}$ 07'39		opposition	-1221 Jun 06 j 14:00	2° $\mathbb{N}$ 40'28	1°06'38
opposition	-1227 Mar 28 j 02:49	25° $\mathbb{N}$ 50'38	2°53'03	min. Earth dist.	-1221 Jun 06 j 22:39	2° $\mathbb{N}$ 38'53	9.07172 AU
min. Earth dist.	-1227 Mar 28 j 04:40	25° $\mathbb{N}$ 50'17	9.03866 AU		-1221 Jul 19 j 01:22	30° $\mathbb{R}$ $\mathbb{M}$	
direct	-1227 Jun 07 j 14:09	22° $\mathbb{N}$ 28'52		direct	-1221 Aug 16 j 02:19	29° $\mathbb{M}$ 22'43	
evening set	-1227 Sep 19 j 01:37	29° $\mathbb{N}$ 38'34			-1221 Sep 12 j 15:55	0° $\mathbb{N}$	
	-1227 Sep 22 j 04:01	0° $\mathbb{N}$		evening set	-1221 Nov 24 j 01:15	6° $\mathbb{N}$ 19'58	
conjunction	-1227 Oct 05 j 17:08	1° $\mathbb{N}$ 34'57	2°20'55	conjunction	-1221 Dec 10 j 15:20	8° $\mathbb{N}$ 16'46	0°41'32
minimum elong	-1227 Oct 05 j 17:08	1° $\mathbb{N}$ 34'58	2°20'54	minimum elong	-1221 Dec 10 j 15:21	8° $\mathbb{N}$ 16'46	0°41'30
max. Earth dist.	-1227 Oct 05 j 13:42	1° $\mathbb{N}$ 33'57	11.07384 AU	max. Earth dist.	-1221 Dec 10 j 05:43	8° $\mathbb{N}$ 13'56	11.03412 AU
morning rise	-1227 Oct 22 j 05:23	3° $\mathbb{N}$ 30'25		morning rise	-1221 Dec 27 j 06:58	10° $\mathbb{N}$ 14'07	
retrograde	-1226 Jan 29 j 07:16	10° $\mathbb{N}$ 23'36		retrograde	-1220 Apr 07 j 16:33	17° $\mathbb{N}$ 22'19	
opposition	-1226 Apr 09 j 02:01	7° $\mathbb{N}$ 06'59	2°49'18	opposition	-1220 Jun 17 j 17:53	14° $\mathbb{N}$ 02'41	0°33'53
min. Earth dist.	-1226 Apr 09 j 05:52	7° $\mathbb{N}$ 06'17	9.10700 AU	min. Earth dist.	-1220 Jun 18 j 02:07	14° $\mathbb{N}$ 01'10	8.99090 AU
direct	-1226 Jun 19 j 15:35	3° $\mathbb{N}$ 46'19		direct	-1220 Aug 26 j 19:54	10° $\mathbb{N}$ 44'48	
evening set	-1226 Sep 30 j 10:33	10° $\mathbb{N}$ 50'28		evening set	-1220 Dec 04 j 11:16	17° $\mathbb{N}$ 45'21	
conjunction	-1226 Oct 16 j 23:49	12° $\mathbb{N}$ 45'39	2°15'20	conjunction	-1220 Dec 21 j 03:07	19° $\mathbb{N}$ 43'47	0°13'49
minimum elong	-1226 Oct 16 j 23:51	12° $\mathbb{N}$ 45'39	2°15'19	minimum elong	-1220 Dec 21 j 03:07	19° $\mathbb{N}$ 43'47	0°13'48
max. Earth dist.	-1226 Oct 16 j 18:16	12° $\mathbb{N}$ 44'02	11.13046 AU	behind sun begin	-1220 Dec 20 j 23:18	19° $\mathbb{N}$ 42'40	
morning rise	-1226 Nov 02 j 10:40	14° $\mathbb{N}$ 40'09		behind sun end	-1220 Dec 21 j 06:56	19° $\mathbb{N}$ 44'55	
retrograde	-1225 Feb 09 j 18:13	21° $\mathbb{N}$ 31'49		max. Earth dist.	-1220 Dec 20 j 17:19	19° $\mathbb{N}$ 40'52	10.94317 AU
opposition	-1225 Apr 20 j 23:01	18° $\mathbb{N}$ 15'18	2°39'13	morning rise	-1219 Jan 06 j 21:22	21° $\mathbb{N}$ 43'01	
min. Earth dist.	-1225 Apr 21 j 03:45	18° $\mathbb{N}$ 14'26	9.15136 AU	retrograde	-1219 Apr 20 j 04:23	28° $\mathbb{N}$ 59'11	
direct	-1225 Jul 01 j 13:00	14° $\mathbb{N}$ 55'37		desc. node	-1219 Jun 20 j 05:34	26° $\mathbb{N}$ 22'11	
evening set	-1225 Oct 11 j 14:54	21° $\mathbb{N}$ 55'28		opposition	-1219 Jun 30 j 02:43	25° $\mathbb{N}$ 38'16	0°00'-55
				min. Earth dist.	-1219 Jun 30 j 10:52	25° $\mathbb{N}$ 36'44	8.88993 AU
conjunction	-1225 Oct 28 j 03:00	23° $\mathbb{N}$ 50'00	2°04'41	direct	-1219 Sep 07 j 15:00	22° $\mathbb{N}$ 19'58	
minimum elong	-1225 Oct 28 j 03:03	23° $\mathbb{N}$ 50'01	2°04'41	evening set	-1219 Dec 16 j 03:47	29° $\mathbb{N}$ 25'24	
max. Earth dist.	-1225 Oct 27 j 20:48	23° $\mathbb{N}$ 48'12	11.16239 AU		-1219 Dec 21 j 00:22	0° $\mathbb{N}$	
morning rise	-1225 Nov 13 j 13:14	25° $\mathbb{N}$ 44'04					
	-1225 Dec 25 j 10:12	0° $\mathbb{M}$		conjunction	-1218 Jan 01 j 21:40	1° $\mathbb{N}$ 25'48	0°-15'-3
retrograde	-1224 Feb 21 j 08:02	2° $\mathbb{M}$ 35'49		minimum elong	-1218 Jan 01 j 21:40	1° $\mathbb{N}$ 25'48	0°15'05
	-1224 Apr 22 j 10:31	30° $\mathbb{R}$ $\mathbb{N}$		behind sun begin	-1218 Jan 01 j 19:00	1° $\mathbb{N}$ 25'00	
opposition	-1224 May 01 j 19:07	29° $\mathbb{N}$ 19'11	2°23'19	behind sun end	-1218 Jan 02 j 00:20	1° $\mathbb{N}$ 26'36	
min. Earth dist.	-1224 May 02 j 00:47	29° $\mathbb{N}$ 18'09	9.17013 AU	max. Earth dist.	-1218 Jan 01 j 11:19	1° $\mathbb{N}$ 22'41	10.83358 AU
direct	-1224 Jul 12 j 06:38	26° $\mathbb{N}$ 00'20		morning rise	-1218 Jan 18 j 18:59	3° $\mathbb{N}$ 27'16	
	-1224 Sep 24 j 03:07	0° $\mathbb{M}$		retrograde	-1218 May 02 j 22:06	10° $\mathbb{N}$ 52'45	
evening set	-1224 Oct 21 j 16:48	2° $\mathbb{M}$ 57'15		opposition	-1218 Jul 12 j 17:06	7° $\mathbb{N}$ 30'22	0°-36'-33
				min. Earth dist.	-1218 Jul 13 j 01:28	7° $\mathbb{N}$ 28'47	8.77221 AU

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 16

Attention, astronomical year style is used: The year -1218 in astronomical counting style is the year 1219 BCE in historical counting style.

direct	-1218 Sep 19 j 15:23	4°♄11'21	opposition	-1212 Sep 30 j 06:17	26°♄26'07	-2°-54'-41
evening set	-1218 Dec 28 j 04:38	11°♄23'19	min. Earth dist.	-1212 Sep 30 j 04:59	26°♄26'23	8.02314 AU
			direct	-1212 Dec 05 j 09:29	22°♄59'29	
conjunction	-1217 Jan 14 j 01:03	13°♄26'01 0°-43'-52		-1211 Mar 09 j 04:18	0°♄	
minimum elong	-1217 Jan 14 j 01:01	13°♄26'01 0°43'53	evening set	-1211 Mar 18 j 03:24	1°♄08'19	
max. Earth dist.	-1217 Jan 13 j 15:08	13°♄23'00 10.70890 AU				
morning rise	-1217 Jan 31 j 01:33	15°♄29'59	conjunction	-1211 Apr 04 j 21:39	3°♄27'29	-2°-18'-24
retrograde	-1217 May 16 j 01:39	23°♄05'55	minimum elong	-1211 Apr 04 j 21:40	3°♄27'29	2°18'26
opposition	-1217 Jul 25 j 13:37	19°♄41'57 -1°-11'-37	max. Earth dist.	-1211 Apr 05 j 00:48	3°♄28'31	9.98474 AU
min. Earth dist.	-1217 Jul 25 j 21:29	19°♄40'27 8.64165 AU	morning rise	-1211 Apr 22 j 19:48	5°♄47'55	
direct	-1217 Oct 01 j 23:25	16°♄22'00	retrograde	-1211 Aug 08 j 05:51	14°♄18'14	
evening set	-1216 Jan 09 j 15:18	23°♄42'02	opposition	-1211 Oct 14 j 16:35	10°♄47'12	-2°-48'-35
			min. Earth dist.	-1211 Oct 14 j 13:02	10°♄47'57	7.95762 AU
conjunction	-1216 Jan 26 j 14:38	25°♄47'19 -1°-11'-25	direct	-1211 Dec 19 j 18:25	7°♄19'19	
minimum elong	-1216 Jan 26 j 14:35	25°♄47'19 1°11'26	evening set	-1210 Apr 02 j 07:35	15°♄34'59	
max. Earth dist.	-1216 Jan 26 j 06:15	25°♄44'44 10.57348 AU				
morning rise	-1216 Feb 12 j 18:21	27°♄54'02	conjunction	-1210 Apr 20 j 06:06	17°♄56'06	-2°-9'-3
	-1216 Mar 01 j 15:02	0°♄	minimum elong	-1210 Apr 20 j 06:09	17°♄56'07	2°09'04
retrograde	-1216 May 28 j 15:15	5°♄41'17	max. Earth dist.	-1210 Apr 20 j 12:28	17°♄58'13	9.93518 AU
opposition	-1216 Aug 06 j 17:17	2°♄15'42 -1°-44'-25	morning rise	-1210 May 08 j 07:25	20°♄18'09	
min. Earth dist.	-1216 Aug 06 j 23:31	2°♄14'30 8.50342 AU	retrograde	-1210 Aug 23 j 04:02	28°♄48'53	
	-1216 Sep 07 j 16:19	30°♄	opposition	-1210 Oct 29 j 04:54	25°♄17'51	-2°-31'-42
direct	-1216 Oct 13 j 12:43	28°♄54'39	min. Earth dist.	-1210 Oct 28 j 23:03	25°♄19'04	7.92469 AU
	-1216 Nov 17 j 13:46	0°♄	direct	-1209 Jan 03 j 09:02	21°♄48'54	
evening set	-1215 Jan 21 j 13:02	6°♄24'02		-1209 Apr 16 j 13:16	0°♄	
			evening set	-1209 Apr 17 j 16:47	0°♄08'53	
conjunction	-1215 Feb 07 j 15:32	8°♄32'06 -1°-36'-16				
minimum elong	-1215 Feb 07 j 15:29	8°♄32'05 1°36'17	conjunction	-1209 May 05 j 18:50	2°♄31'14	-1°-51'-26
max. Earth dist.	-1215 Feb 07 j 08:53	8°♄30'01 10.43356 AU	minimum elong	-1209 May 05 j 18:54	2°♄31'15	1°51'26
morning rise	-1215 Feb 24 j 22:42	10°♄41'44	max. Earth dist.	-1209 May 06 j 03:58	2°♄34'15	9.91985 AU
	-1215 Apr 04 j 02:33	15°♄	morning rise	-1209 May 23 j 22:23	4°♄54'04	
retrograde	-1215 Jun 11 j 14:03	18°♄40'33	retrograde	-1209 Sep 06 j 23:34	13°♄21'35	
opposition	-1215 Aug 20 j 04:24	15°♄13'24 -2°-13'-6	opposition	-1209 Nov 12 j 17:00	9°♄51'01	-2°-5'00
min. Earth dist.	-1215 Aug 20 j 08:33	15°♄12'35 8.36465 AU	min. Earth dist.	-1209 Nov 12 j 09:17	9°♄52'38	7.92652 AU
	-1215 Aug 23 j 00:28	15°♄	direct	-1208 Jan 18 j 02:18	6°♄21'18	
direct	-1215 Oct 26 j 10:19	11°♄51'04	evening set	-1208 May 02 j 03:37	14°♄42'47	
	-1215 Dec 26 j 01:08	15°♄		-1208 May 04 j 08:55	15°♄	
evening set	-1214 Feb 03 j 23:05	19°♄30'39				
conjunction	-1214 Feb 21 j 05:01	21°♄41'39 -1°-56'-51	conjunction	-1208 May 20 j 08:07	17°♄05'27	-1°-26'-43
minimum elong	-1214 Feb 21 j 04:58	21°♄41'38 1°56'53	minimum elong	-1208 May 20 j 08:11	17°♄05'28	1°26'44
max. Earth dist.	-1214 Feb 21 j 00:02	21°♄40'04 10.29697 AU	max. Earth dist.	-1208 May 20 j 19:17	17°♄09'07	9.93974 AU
morning rise	-1214 Mar 10 j 15:52	23°♄54'15	morning rise	-1208 Jun 07 j 12:41	19°♄28'08	
	-1214 May 06 j 23:20	0°♄	retrograde	-1208 Sep 20 j 15:02	27°♄49'13	
retrograde	-1214 Jun 25 j 21:14	2°♄04'01	opposition	-1208 Nov 26 j 02:51	24°♄19'31	-1°-30'-26
	-1214 Aug 15 j 19:18	30°♄	min. Earth dist.	-1208 Nov 25 j 18:01	24°♄21'22	7.96295 AU
opposition	-1214 Sep 02 j 22:42	28°♄35'27 -2°-35'-37	direct	-1207 Jan 31 j 20:57	20°♄49'20	
min. Earth dist.	-1214 Sep 03 j 01:05	28°♄34'58 8.23327 AU	evening set	-1207 May 17 j 12:41	29°♄09'32	
direct	-1214 Nov 08 j 16:57	25°♄11'41		-1207 May 24 j 01:18	0°♄	
	-1213 Jan 23 j 16:46	0°♄	conjunction	-1207 Jun 04 j 18:04	1°♄31'31	0°-56'-44
evening set	-1213 Feb 17 j 21:25	3°♄01'44	minimum elong	-1207 Jun 04 j 18:07	1°♄31'32	0°56'45
			max. Earth dist.	-1207 Jun 05 j 06:12	1°♄35'29	9.99322 AU
conjunction	-1213 Mar 07 j 07:08	5°♄15'40 -2°-11'-36	morning rise	-1207 Jun 22 j 22:09	3°♄53'03	
minimum elong	-1213 Mar 07 j 07:06	5°♄15'39 2°11'38	retrograde	-1207 Oct 04 j 23:16	12°♄05'12	
max. Earth dist.	-1213 Mar 07 j 04:11	5°♄14'43 10.17168 AU	opposition	-1207 Dec 10 j 08:44	8°♄36'46	0°-50'-41
morning rise	-1213 Mar 24 j 21:50	7°♄31'10	min. Earth dist.	-1207 Dec 09 j 23:47	8°♄38'37	8.03129 AU
retrograde	-1213 Jul 10 j 12:03	15°♄50'23	direct	-1206 Feb 15 j 14:55	5°♄06'28	
opposition	-1213 Sep 16 j 23:44	12°♄20'39 -2°-50'-1	evening set	-1206 Jun 01 j 16:49	13°♄22'53	
min. Earth dist.	-1213 Sep 17 j 00:22	12°♄20'32 8.11704 AU				
direct	-1213 Nov 22 j 08:25	8°♄55'26	conjunction	-1206 Jun 19 j 21:15	15°♄43'12	0°-23'-43
evening set	-1212 Mar 03 j 07:15	16°♄55'29	minimum elong	-1206 Jun 19 j 21:17	15°♄43'12	0°23'43
			max. Earth dist.	-1206 Jun 20 j 09:08	15°♄47'02	10.07639 AU
conjunction	-1212 Mar 20 j 21:06	19°♄12'10 -2°-19'-8	morning rise	-1206 Jul 07 j 23:10	18°♄02'41	
minimum elong	-1212 Mar 20 j 21:06	19°♄12'10 2°19'09	retrograde	-1206 Oct 18 j 22:16	26°♄04'19	
max. Earth dist.	-1212 Mar 20 j 20:55	19°♄12'07 10.06533 AU	opposition	-1206 Dec 24 j 09:05	22°♄37'25	0°-8'-42
morning rise	-1212 Apr 07 j 15:37	21°♄30'21	min. Earth dist.	-1206 Dec 24 j 00:29	22°♄39'11	8.12697 AU
retrograde	-1212 Jul 24 j 07:39	29°♄56'42	direct	-1205 Mar 02 j 05:59	19°♄07'24	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 17

Attention, astronomical year style is used: The year -1205 in astronomical counting style is the year 1206 BCE in historical counting style.

asc. node	-1205 Mar 12 j 22:28	19° $\Pi$ 13'36		max. Earth dist.	-1200 Sep 07 j 04:50	3° $\mathring{M}$ 19'38	10.84350 AU
evening set	-1205 Jun 16 j 13:09	27° $\Pi$ 17'56		morning rise	-1200 Sep 23 j 22:47	5° $\mathring{M}$ 19'16	
				retrograde	-1199 Jan 01 j 00:03	12° $\mathring{M}$ 23'18	
conjunction	-1205 Jul 04 j 14:59	29° $\Pi$ 35'47	0°10'06	opposition	-1199 Mar 10 j 15:01	9° $\mathring{M}$ 05'38	2°46'01
minimum elong	-1205 Jul 04 j 14:58	29° $\Pi$ 35'46	0°10'07	min. Earth dist.	-1199 Mar 10 j 13:59	9° $\mathring{M}$ 05'50	8.90234 AU
behind sun begin	-1205 Jul 04 j 09:10	29° $\Pi$ 33'56		direct	-1199 May 20 j 16:53	5° $\mathring{M}$ 42'30	
behind sun end	-1205 Jul 04 j 20:47	29° $\Pi$ 37'37		evening set	-1199 Sep 02 j 05:22	13° $\mathring{M}$ 02'44	
max. Earth dist.	-1205 Jul 05 j 01:52	29° $\Pi$ 39'15	10.18382 AU				
	-1205 Jul 07 j 18:43	0° $\mathring{S}$		conjunction	-1199 Sep 19 j 01:53	15° $\mathring{M}$ 01'55	2°19'04
morning rise	-1205 Jul 22 j 13:18	1° $\mathring{S}$ 52'28		minimum elong	-1199 Sep 19 j 01:51	15° $\mathring{M}$ 01'55	2°19'04
retrograde	-1205 Nov 01 j 10:48	9° $\mathring{S}$ 42'55		max. Earth dist.	-1199 Sep 19 j 01:35	15° $\mathring{M}$ 01'50	10.95427 AU
opposition	-1204 Jan 07 j 02:58	6° $\mathring{S}$ 17'42	0°32'41	morning rise	-1199 Oct 05 j 18:18	16° $\mathring{M}$ 59'54	
min. Earth dist.	-1204 Jan 06 j 18:45	6° $\mathring{S}$ 19'22	8.24396 AU	retrograde	-1198 Jan 12 j 17:26	23° $\mathring{M}$ 58'30	
direct	-1204 Mar 15 j 15:44	2° $\mathring{S}$ 48'19		opposition	-1198 Mar 22 j 19:42	20° $\mathring{M}$ 41'39	2°52'18
evening set	-1204 Jun 29 j 23:37	10° $\mathring{S}$ 51'27		min. Earth dist.	-1198 Mar 22 j 19:57	20° $\mathring{M}$ 41'37	9.00429 AU
				direct	-1198 Jun 02 j 05:11	17° $\mathring{M}$ 19'49	
conjunction	-1204 Jul 17 j 21:30	13° $\mathring{S}$ 06'14	0°42'31	evening set	-1198 Sep 14 j 00:27	24° $\mathring{M}$ 32'48	
minimum elong	-1204 Jul 17 j 21:28	13° $\mathring{S}$ 06'14	0°42'32				
max. Earth dist.	-1204 Jul 18 j 07:08	13° $\mathring{S}$ 09'17	10.30887 AU	conjunction	-1198 Sep 30 j 17:28	26° $\mathring{M}$ 29'59	2°21'33
morning rise	-1204 Aug 04 j 15:09	15° $\mathring{S}$ 19'39		minimum elong	-1198 Sep 30 j 17:28	26° $\mathring{M}$ 29'59	2°21'32
retrograde	-1204 Nov 13 j 15:09	22° $\mathring{S}$ 58'59		max. Earth dist.	-1198 Sep 30 j 15:42	26° $\mathring{M}$ 29'27	11.04566 AU
opposition	-1203 Jan 19 j 13:50	19° $\mathring{S}$ 35'30	1°11'04	morning rise	-1198 Oct 17 j 06:49	28° $\mathring{M}$ 26'07	
min. Earth dist.	-1203 Jan 19 j 05:59	19° $\mathring{S}$ 37'04	8.37520 AU		-1198 Oct 31 j 04:57	0° $\mathring{S}$	
direct	-1203 Mar 29 j 17:42	16° $\mathring{S}$ 07'04		retrograde	-1197 Jan 24 j 08:43	5° $\mathring{S}$ 20'48	
evening set	-1203 Jul 13 j 23:13	24° $\mathring{S}$ 01'49		opposition	-1197 Apr 03 j 20:42	2° $\mathring{S}$ 04'30	2°51'41
				min. Earth dist.	-1197 Apr 03 j 22:40	2° $\mathring{S}$ 04'08	9.08464 AU
conjunction	-1203 Jul 31 j 16:13	26° $\mathring{S}$ 13'15	1°11'53		-1197 May 04 j 03:58	30° $\mathring{R}$ $\mathring{M}$	
minimum elong	-1203 Jul 31 j 16:10	26° $\mathring{S}$ 13'14	1°11'54	direct	-1197 Jun 14 j 08:51	28° $\mathring{M}$ 43'51	
max. Earth dist.	-1203 Aug 01 j 00:37	26° $\mathring{S}$ 15'52	10.44427 AU		-1197 Jul 24 j 18:06	0° $\mathring{S}$	
morning rise	-1203 Aug 18 j 04:21	28° $\mathring{S}$ 23'09		evening set	-1197 Sep 25 j 12:40	5° $\mathring{S}$ 50'39	
	-1203 Aug 31 j 17:36	0° $\mathring{Q}$					
retrograde	-1203 Nov 26 j 10:53	5° $\mathring{Q}$ 51'58		conjunction	-1197 Oct 12 j 03:04	7° $\mathring{S}$ 46'22	2°18'29
opposition	-1202 Feb 01 j 17:36	2° $\mathring{Q}$ 30'11	1°44'36	minimum elong	-1197 Oct 12 j 03:05	7° $\mathring{S}$ 46'22	2°18'28
min. Earth dist.	-1202 Feb 01 j 10:31	2° $\mathring{Q}$ 31'34	8.51335 AU	max. Earth dist.	-1197 Oct 11 j 23:18	7° $\mathring{S}$ 45'16	11.11376 AU
	-1202 Mar 09 j 10:25	30° $\mathring{R}$ $\mathring{S}$		morning rise	-1197 Oct 28 j 14:22	9° $\mathring{S}$ 41'15	
direct	-1202 Apr 12 j 11:39	29° $\mathring{S}$ 02'57		retrograde	-1196 Feb 04 j 20:35	16° $\mathring{S}$ 33'36	
	-1202 May 16 j 08:06	0° $\mathring{Q}$		opposition	-1196 Apr 14 j 18:57	13° $\mathring{S}$ 17'34	2°44'32
evening set	-1202 Jul 27 j 11:17	6° $\mathring{Q}$ 48'49		min. Earth dist.	-1196 Apr 14 j 23:36	13° $\mathring{S}$ 16'43	9.13997 AU
				direct	-1196 Jun 25 j 07:45	9° $\mathring{S}$ 57'55	
conjunction	-1202 Aug 13 j 22:54	8° $\mathring{Q}$ 56'48	1°36'53	evening set	-1196 Oct 05 j 19:43	16° $\mathring{S}$ 59'55	
minimum elong	-1202 Aug 13 j 22:51	8° $\mathring{Q}$ 56'47	1°36'54				
max. Earth dist.	-1202 Aug 14 j 06:16	8° $\mathring{Q}$ 59'04	10.58286 AU	conjunction	-1196 Oct 22 j 08:14	18° $\mathring{S}$ 54'43	2°10'09
morning rise	-1202 Aug 31 j 05:19	11° $\mathring{Q}$ 03'14		minimum elong	-1196 Oct 22 j 08:16	18° $\mathring{S}$ 54'43	2°10'09
	-1202 Oct 05 j 22:51	15° $\mathring{Q}$		max. Earth dist.	-1196 Oct 22 j 01:20	18° $\mathring{S}$ 52'42	11.15584 AU
retrograde	-1202 Dec 08 j 22:29	18° $\mathring{Q}$ 22'32		morning rise	-1196 Nov 07 j 18:39	20° $\mathring{S}$ 48'56	
opposition	-1201 Feb 14 j 14:49	15° $\mathring{Q}$ 02'20	2°12'01	retrograde	-1195 Feb 15 j 08:59	27° $\mathring{S}$ 40'40	
min. Earth dist.	-1201 Feb 14 j 09:26	15° $\mathring{Q}$ 03'23	8.65148 AU	opposition	-1195 Apr 26 j 15:58	24° $\mathring{S}$ 24'36	2°31'18
	-1201 Feb 15 j 02:51	15° $\mathring{R}$ $\mathring{Q}$		min. Earth dist.	-1195 Apr 26 j 22:53	24° $\mathring{S}$ 23'20	9.16838 AU
direct	-1201 Apr 25 j 21:30	11° $\mathring{Q}$ 36'26		direct	-1195 Jul 07 j 03:31	21° $\mathring{S}$ 05'45	
	-1201 Jul 01 j 11:56	15° $\mathring{Q}$		evening set	-1195 Oct 16 j 23:07	28° $\mathring{S}$ 04'16	
evening set	-1201 Aug 09 j 11:43	19° $\mathring{Q}$ 13'20					
				conjunction	-1195 Nov 02 j 10:44	29° $\mathring{S}$ 58'42	1°57'00
conjunction	-1201 Aug 26 j 17:53	21° $\mathring{Q}$ 18'03	1°56'40	minimum elong	-1195 Nov 02 j 10:46	29° $\mathring{S}$ 58'43	1°57'00
minimum elong	-1201 Aug 26 j 17:50	21° $\mathring{Q}$ 18'02	1°56'42	max. Earth dist.	-1195 Nov 02 j 01:56	29° $\mathring{S}$ 56'08	11.17089 AU
max. Earth dist.	-1201 Aug 26 j 23:13	21° $\mathring{Q}$ 19'40	10.71794 AU		-1195 Nov 02 j 15:11	0° $\mathring{M}$	
morning rise	-1201 Sep 12 j 18:54	23° $\mathring{Q}$ 21'14		morning rise	-1195 Nov 18 j 21:09	1° $\mathring{M}$ 52'50	
	-1201 Nov 26 j 07:37	0° $\mathring{M}$		retrograde	-1194 Feb 26 j 21:12	8° $\mathring{M}$ 45'37	
retrograde	-1201 Dec 21 j 03:20	0° $\mathring{M}$ 32'14		opposition	-1194 May 08 j 12:44	5° $\mathring{M}$ 29'09	2°12'31
	-1200 Jan 15 j 04:28	30° $\mathring{R}$ $\mathring{Q}$		min. Earth dist.	-1194 May 08 j 20:34	5° $\mathring{M}$ 27'43	9.16953 AU
opposition	-1200 Feb 27 j 05:45	27° $\mathring{Q}$ 13'26	2°32'35	direct	-1194 Jul 18 j 20:12	2° $\mathring{M}$ 10'52	
min. Earth dist.	-1200 Feb 27 j 02:39	27° $\mathring{Q}$ 14'02	8.78307 AU	evening set	-1194 Oct 28 j 00:52	9° $\mathring{M}$ 07'19	
direct	-1200 May 07 j 22:25	23° $\mathring{Q}$ 48'55					
	-1200 Aug 09 j 21:24	0° $\mathring{M}$		conjunction	-1194 Nov 13 j 12:32	11° $\mathring{M}$ 01'55	1°39'29
evening set	-1200 Aug 21 j 01:29	1° $\mathring{M}$ 17'11		minimum elong	-1194 Nov 13 j 12:35	11° $\mathring{M}$ 01'56	1°39'29
				max. Earth dist.	-1194 Nov 13 j 03:13	10° $\mathring{M}$ 59'12	11.15899 AU
conjunction	-1200 Sep 07 j 02:28	3° $\mathring{M}$ 18'55	2°10'47	morning rise	-1194 Nov 29 j 23:37	12° $\mathring{M}$ 56'26	
minimum elong	-1200 Sep 07 j 02:25	3° $\mathring{M}$ 18'55	2°10'48		-1194 Dec 18 j 16:11	15° $\mathring{M}$	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 18

Attention, astronomical year style is used: The year -1193 in astronomical counting style is the year 1194 BCE in historical counting style.

retrograde	-1193 Mar 10 j 14:37	19° $\mathbb{M}$ 51'52		conjunction	-1187 Jan 20 j 04:50	20° $\mathfrak{Z}$ 20'25	0°-59'00
opposition	-1193 May 20 j 10:11	16° $\mathbb{M}$ 34'42	1°48'48	minimum elong	-1187 Jan 20 j 04:48	20° $\mathfrak{Z}$ 20'24	0°59'01
min. Earth dist.	-1193 May 20 j 18:29	16° $\mathbb{M}$ 33'11	9.14391 AU	max. Earth dist.	-1187 Jan 19 j 19:28	20° $\mathfrak{Z}$ 17'32	10.61502 AU
	-1193 Jun 11 j 22:23	15° $\mathbb{R}$ $\mathbb{M}$		morning rise	-1187 Feb 06 j 07:07	22° $\mathfrak{Z}$ 26'04	
direct	-1193 Jul 30 j 12:29	13° $\mathbb{M}$ 16'44			-1187 May 09 j 13:39	0° $\approx$	
	-1193 Sep 15 j 08:01	15° $\mathbb{M}$		retrograde	-1187 May 22 j 19:04	0° $\approx$ 08'44	
evening set	-1193 Nov 08 j 02:47	20° $\mathbb{M}$ 12'34			-1187 Jun 05 j 00:07	30° $\mathbb{R}$ $\mathfrak{Z}$	
				opposition	-1187 Aug 01 j 01:33	26° $\mathfrak{Z}$ 43'13	-1°-29'-48
conjunction	-1193 Nov 24 j 15:04	22° $\mathbb{M}$ 07'49	1°18'11	min. Earth dist.	-1187 Aug 01 j 08:06	26° $\mathfrak{Z}$ 41'56	8.54642 AU
minimum elong	-1193 Nov 24 j 15:07	22° $\mathbb{M}$ 07'49	1°18'10	direct	-1187 Oct 08 j 02:45	23° $\mathfrak{Z}$ 22'00	
max. Earth dist.	-1193 Nov 24 j 04:50	22° $\mathbb{M}$ 04'49	11.12084 AU		-1186 Jan 09 j 10:16	0° $\approx$	
morning rise	-1193 Dec 11 j 03:37	24° $\mathbb{M}$ 03'14		evening set	-1186 Jan 15 j 23:35	0° $\approx$ 47'37	
	-1192 Feb 14 j 02:47	0° $\mathfrak{Z}$					
retrograde	-1192 Mar 21 j 10:32	1° $\mathfrak{Z}$ 02'51		conjunction	-1186 Feb 02 j 00:30	2° $\approx$ 54'35	-1°-25'-18
	-1192 Apr 27 j 12:50	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	-1186 Feb 02 j 00:27	2° $\approx$ 54'34	1°25'20
opposition	-1192 May 31 j 09:44	27° $\mathbb{M}$ 44'43	1°20'49	max. Earth dist.	-1186 Feb 01 j 16:32	2° $\approx$ 52'06	10.47802 AU
min. Earth dist.	-1192 May 31 j 19:06	27° $\mathbb{M}$ 43'00	9.09264 AU	morning rise	-1186 Feb 19 j 06:17	5° $\approx$ 03'05	
direct	-1192 Aug 10 j 02:08	24° $\mathbb{M}$ 26'47		retrograde	-1186 Jun 05 j 12:35	12° $\approx$ 57'12	
	-1192 Nov 05 j 22:13	0° $\mathfrak{Z}$		opposition	-1186 Aug 14 j 09:33	9° $\approx$ 30'07	-2°00'-40
evening set	-1192 Nov 18 j 06:42	1° $\mathfrak{Z}$ 23'34		min. Earth dist.	-1186 Aug 14 j 14:52	9° $\approx$ 29'05	8.40956 AU
				direct	-1186 Oct 20 j 21:54	6° $\approx$ 07'44	
conjunction	-1192 Dec 04 j 19:59	3° $\mathfrak{Z}$ 19'52	0°53'43	evening set	-1185 Jan 29 j 04:04	13° $\approx$ 43'09	
minimum elong	-1192 Dec 04 j 20:01	3° $\mathfrak{Z}$ 19'53	0°53'41		-1185 Feb 08 j 09:12	15° $\approx$	
max. Earth dist.	-1192 Dec 04 j 08:24	3° $\mathfrak{Z}$ 16'27	11.05792 AU				
morning rise	-1192 Dec 21 j 10:40	5° $\mathfrak{Z}$ 16'38		conjunction	-1185 Feb 15 j 08:22	15° $\approx$ 52'59	-1°-48'-4
retrograde	-1191 Apr 02 j 10:33	12° $\mathfrak{Z}$ 22'04		minimum elong	-1185 Feb 15 j 08:19	15° $\approx$ 52'58	1°48'05
opposition	-1191 Jun 12 j 12:25	9° $\mathfrak{Z}$ 02'43	0°49'21	max. Earth dist.	-1185 Feb 15 j 03:04	15° $\approx$ 51'18	10.34214 AU
min. Earth dist.	-1191 Jun 12 j 22:33	9° $\mathfrak{Z}$ 00'51	9.01768 AU	morning rise	-1185 Mar 04 j 17:39	18° $\approx$ 04'24	
direct	-1191 Aug 21 j 19:02	5° $\mathfrak{Z}$ 44'32		retrograde	-1185 Jun 19 j 15:30	26° $\approx$ 09'45	
evening set	-1191 Nov 29 j 14:24	12° $\mathfrak{Z}$ 43'55		opposition	-1185 Aug 28 j 00:42	22° $\approx$ 41'16	-2°-26'-16
				min. Earth dist.	-1185 Aug 28 j 03:48	22° $\approx$ 40'39	8.27749 AU
conjunction	-1191 Dec 16 j 05:20	14° $\mathfrak{Z}$ 41'42	0°26'49	direct	-1185 Nov 03 j 01:18	19° $\approx$ 17'39	
minimum elong	-1191 Dec 16 j 05:21	14° $\mathfrak{Z}$ 41'42	0°26'48	evening set	-1184 Feb 11 j 20:48	27° $\approx$ 03'23	
max. Earth dist.	-1191 Dec 15 j 17:42	14° $\mathfrak{Z}$ 38'15	10.97252 AU				
morning rise	-1190 Jan 01 j 22:32	16° $\mathfrak{Z}$ 40'12		conjunction	-1184 Feb 29 j 04:51	29° $\approx$ 16'08	-2°-5'-41
retrograde	-1190 Apr 14 j 18:05	23° $\mathfrak{Z}$ 53'01		minimum elong	-1184 Feb 29 j 04:48	29° $\approx$ 16'07	2°05'43
opposition	-1190 Jun 24 j 19:07	20° $\mathfrak{Z}$ 32'14	0°15'20	max. Earth dist.	-1184 Feb 29 j 02:38	29° $\approx$ 15'25	10.21457 AU
min. Earth dist.	-1190 Jun 25 j 04:56	20° $\mathfrak{Z}$ 30'25	8.92178 AU		-1184 Mar 05 j 21:24	0° $\mathbb{H}$	
direct	-1190 Sep 02 j 14:33	17° $\mathfrak{Z}$ 13'36		morning rise	-1184 Mar 17 j 17:43	1° $\mathbb{H}$ 30'27	
desc. node	-1190 Dec 06 j 05:40	23° $\mathfrak{Z}$ 42'45		retrograde	-1184 Jul 03 j 03:51	9° $\mathbb{H}$ 46'02	
evening set	-1190 Dec 11 j 03:44	24° $\mathfrak{Z}$ 17'10		opposition	-1184 Sep 09 j 23:00	6° $\mathbb{H}$ 16'23	-2°-44'-36
				min. Earth dist.	-1184 Sep 09 j 23:22	6° $\mathbb{H}$ 16'19	8.15749 AU
conjunction	-1190 Dec 27 j 20:49	26° $\mathfrak{Z}$ 16'49	0°-1'-42	direct	-1184 Nov 15 j 12:14	2° $\mathbb{H}$ 51'32	
minimum elong	-1190 Dec 27 j 20:50	26° $\mathfrak{Z}$ 16'49	0°01'44	evening set	-1183 Feb 25 j 01:33	10° $\mathbb{H}$ 47'28	
behind sun begin	-1190 Dec 27 j 13:50	26° $\mathfrak{Z}$ 14'45					
behind sun end	-1190 Dec 28 j 03:51	26° $\mathfrak{Z}$ 18'54		conjunction	-1183 Mar 14 j 13:37	13° $\mathbb{H}$ 03'02	-2°-16'-39
max. Earth dist.	-1190 Dec 27 j 10:25	26° $\mathfrak{Z}$ 13'43	10.86754 AU	minimum elong	-1183 Mar 14 j 13:36	13° $\mathbb{H}$ 03'01	2°16'40
morning rise	-1189 Jan 13 j 16:45	28° $\mathfrak{Z}$ 17'25		max. Earth dist.	-1183 Mar 14 j 14:34	13° $\mathbb{H}$ 03'20	10.10283 AU
	-1189 Jan 28 j 14:51	0° $\mathfrak{Z}$		morning rise	-1183 Apr 01 j 06:15	15° $\mathbb{H}$ 20'07	
retrograde	-1189 Apr 27 j 09:14	5° $\mathfrak{Z}$ 39'03		retrograde	-1183 Jul 17 j 22:35	23° $\mathbb{H}$ 43'59	
opposition	-1189 Jul 07 j 06:54	2° $\mathfrak{Z}$ 16'43	0°-20'-6	opposition	-1183 Sep 24 j 03:27	20° $\mathbb{H}$ 13'31	-2°-53'-50
min. Earth dist.	-1189 Jul 07 j 15:24	2° $\mathfrak{Z}$ 15'07	8.80822 AU	min. Earth dist.	-1183 Sep 24 j 01:13	20° $\mathbb{H}$ 13'58	8.05678 AU
	-1189 Aug 09 j 14:41	30° $\mathbb{R}$ $\mathfrak{Z}$		direct	-1183 Nov 29 j 08:41	16° $\mathbb{H}$ 47'27	
direct	-1189 Sep 14 j 13:18	28° $\mathfrak{Z}$ 57'25		evening set	-1182 Mar 11 j 17:38	24° $\mathbb{H}$ 52'46	
	-1189 Oct 19 j 14:53	0° $\mathfrak{Z}$					
evening set	-1189 Dec 23 j 00:43	6° $\mathfrak{Z}$ 06'52		conjunction	-1182 Mar 29 j 09:57	27° $\mathbb{H}$ 10'56	-2°-19'-45
				minimum elong	-1182 Mar 29 j 09:57	27° $\mathbb{H}$ 10'56	2°19'46
conjunction	-1188 Jan 08 j 20:07	8° $\mathfrak{Z}$ 08'42	0°-30'-40	max. Earth dist.	-1182 Mar 29 j 13:37	27° $\mathbb{H}$ 12'08	10.01398 AU
minimum elong	-1188 Jan 08 j 20:06	8° $\mathfrak{Z}$ 08'41	0°30'41	morning rise	-1182 Apr 16 j 06:21	29° $\mathbb{H}$ 30'27	
max. Earth dist.	-1188 Jan 08 j 10:17	8° $\mathfrak{Z}$ 05'43	10.74675 AU		-1182 Apr 20 j 02:52	0° $\mathbb{Y}$	
morning rise	-1188 Jan 25 j 19:02	10° $\mathfrak{Z}$ 11'41		retrograde	-1182 Aug 01 j 20:52	7° $\mathbb{Y}$ 59'44	
retrograde	-1188 May 09 j 10:00	17° $\mathfrak{Z}$ 43'22		opposition	-1182 Oct 08 j 12:32	4° $\mathbb{Y}$ 28'52	-2°-52'-39
opposition	-1188 Jul 19 j 00:44	14° $\mathfrak{Z}$ 19'26	0°-55'-41	min. Earth dist.	-1182 Oct 08 j 08:17	4° $\mathbb{Y}$ 29'44	7.98192 AU
min. Earth dist.	-1188 Jul 19 j 08:12	14° $\mathfrak{Z}$ 18'01	8.68132 AU	direct	-1182 Dec 13 j 13:37	1° $\mathbb{Y}$ 01'40	
direct	-1188 Sep 25 j 17:05	10° $\mathfrak{Z}$ 59'17		evening set	-1181 Mar 26 j 18:57	9° $\mathbb{Y}$ 14'45	
evening set	-1187 Jan 03 j 06:53	18° $\mathfrak{Z}$ 16'07					
				conjunction	-1181 Apr 13 j 15:27	11° $\mathbb{Y}$ 35'05	-2°-14'-17

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 19

Attention, astronomical year style is used: The year -1181 in astronomical counting style is the year 1182 BCE in historical counting style.

minimum elong	-1181 Apr 13 j 15:29	11°Υ35'06	2°14'18			-1175 Jan 05 j 16:59	30°RΠ	
max. Earth dist.	-1181 Apr 13 j 21:35	11°Υ37'06	9.95408 AU	direct		-1175 Mar 09 j 13:23	26°Π56'53	
morning rise	-1181 May 01 j 15:20	13°Υ56'30				-1175 May 09 j 12:14	0°Θ	
retrograde	-1181 Aug 16 j 20:27	22°Υ27'45		evening set		-1175 Jun 23 j 22:28	5°Θ03'31	
opposition	-1181 Oct 23 j 00:43	18°Υ56'55	-2°-40'-32					
min. Earth dist.	-1181 Oct 22 j 18:55	18°Υ58'08	7.93812 AU	conjunction		-1175 Jul 11 j 22:26	7°Θ19'44	0°28'15
direct	-1181 Dec 28 j 01:32	15°Υ28'46		minimum elong		-1175 Jul 11 j 22:25	7°Θ19'44	0°28'15
evening set	-1180 Apr 10 j 02:32	23°Υ47'14		max. Earth dist.		-1175 Jul 12 j 08:40	7°Θ22'58	10.25822 AU
				morning rise		-1175 Jul 29 j 18:10	9°Θ34'38	
conjunction	-1180 Apr 28 j 02:52	26°Υ09'06	-2°00'-17	retrograde		-1175 Nov 08 j 06:08	17°Θ19'11	
minimum elong	-1180 Apr 28 j 02:56	26°Υ09'07	2°00'18	opposition		-1174 Jan 13 j 23:18	13°Θ55'22	0°54'21
max. Earth dist.	-1180 Apr 28 j 11:25	26°Υ11'55	9.92739 AU	min. Earth dist.		-1174 Jan 13 j 16:06	13°Θ56'49	8.31977 AU
morning rise	-1180 May 16 j 05:34	28°Υ31'40		direct		-1174 Mar 23 j 18:03	10°Θ26'55	
	-1180 May 27 j 19:30	0°Ξ		evening set		-1174 Jul 08 j 03:41	18°Θ25'47	
retrograde	-1180 Aug 30 j 18:15	7°Ξ01'12						
opposition	-1180 Nov 05 j 13:40	3°Ξ30'48	-2°-18'-2	conjunction		-1174 Jul 25 j 23:01	20°Θ38'48	0°59'12
min. Earth dist.	-1180 Nov 05 j 06:28	3°Ξ32'19	7.92847 AU	minimum elong		-1174 Jul 25 j 22:58	20°Θ38'48	0°59'13
direct	-1179 Jan 10 j 18:17	0°Ξ01'53		max. Earth dist.		-1174 Jul 26 j 07:24	20°Θ41'26	10.38488 AU
evening set	-1179 Apr 25 j 13:29	8°Ξ22'59		morning rise		-1174 Aug 12 j 13:35	22°Θ50'20	
						-1174 Oct 31 j 04:03	0°Ω	
conjunction	-1179 May 13 j 16:50	10°Ξ45'32	-1°-38'-33	retrograde		-1174 Nov 21 j 05:32	0°Ω24'12	
minimum elong	-1179 May 13 j 16:54	10°Ξ45'34	1°38'34			-1174 Dec 12 j 09:33	30°RΘ	
max. Earth dist.	-1179 May 14 j 03:13	10°Ξ48'58	9.93563 AU	opposition		-1173 Jan 27 j 06:53	27°Θ01'58	1°30'18
morning rise	-1179 May 31 j 21:14	13°Ξ08'22		min. Earth dist.		-1173 Jan 27 j 01:13	27°Θ03'06	8.45070 AU
	-1179 Jun 15 j 15:27	15°Ξ		direct		-1173 Apr 06 j 17:08	23°Θ34'25	
retrograde	-1179 Sep 14 j 12:00	21°Ξ32'36				-1173 Jul 10 j 00:07	0°Ω	
opposition	-1179 Nov 20 j 01:00	18°Ξ03'02	-1°-46'-42	evening set		-1173 Jul 21 j 21:34	1°Ω24'45	
min. Earth dist.	-1179 Nov 19 j 16:43	18°Ξ04'46	7.95333 AU					
	-1178 Jan 03 j 20:34	15°RΞ		conjunction		-1173 Aug 08 j 11:34	3°Ω34'22	1°26'19
direct	-1178 Jan 25 j 14:11	14°Ξ33'35		minimum elong		-1173 Aug 08 j 11:31	3°Ω34'21	1°26'21
	-1178 Feb 16 j 06:53	15°Ξ		max. Earth dist.		-1173 Aug 08 j 17:32	3°Ω36'13	10.51786 AU
evening set	-1178 May 11 j 00:04	22°Ξ54'28		morning rise		-1173 Aug 25 j 20:40	5°Ω42'28	
				retrograde		-1173 Dec 03 j 19:31	13°Ω06'24	
conjunction	-1178 May 29 j 05:06	25°Ξ16'44	-1°-10'-42	opposition		-1172 Feb 09 j 07:25	9°Ω45'37	2°00'38
minimum elong	-1178 May 29 j 05:09	25°Ξ16'45	1°10'42	min. Earth dist.		-1172 Feb 09 j 02:53	9°Ω46'30	8.58480 AU
max. Earth dist.	-1178 May 29 j 16:30	25°Ξ20'28	9.97755 AU	direct		-1172 Apr 19 j 08:35	6°Ω19'06	
morning rise	-1178 Jun 16 j 09:41	27°Ξ38'48		evening set		-1172 Aug 03 j 03:46	14°Ω00'34	
	-1178 Jul 05 j 08:26	0°Π				-1172 Aug 11 j 09:02	15°Ω	
retrograde	-1178 Sep 28 j 22:44	5°Π54'57						
opposition	-1178 Dec 04 j 08:58	2°Π26'30	-1°-8'-57	conjunction		-1172 Aug 20 j 12:21	16°Ω06'51	1°48'34
min. Earth dist.	-1178 Dec 03 j 23:54	2°Π28'23	8.01005 AU	minimum elong		-1172 Aug 20 j 12:18	16°Ω06'50	1°48'35
	-1177 Jan 06 j 02:37	30°RΞ		max. Earth dist.		-1172 Aug 20 j 16:20	16°Ω08'04	10.65056 AU
direct	-1177 Feb 09 j 09:54	28°Ξ56'50		morning rise		-1172 Sep 06 j 15:59	18°Ω11'37	
	-1177 Mar 15 j 13:00	0°Π		retrograde		-1172 Dec 15 j 03:35	25°Ω26'43	
evening set	-1177 May 26 j 06:42	7°Π14'51		opposition		-1171 Feb 21 j 01:26	22°Ω07'11	2°24'23
				min. Earth dist.		-1171 Feb 20 j 21:55	22°Ω07'52	8.71541 AU
conjunction	-1177 Jun 13 j 11:43	9°Π35'52	0°-38'-46	direct		-1171 May 02 j 14:54	18°Ω41'51	
minimum elong	-1177 Jun 13 j 11:45	9°Π35'53	0°38'47	evening set		-1171 Aug 15 j 22:41	26°Ω14'31	
max. Earth dist.	-1177 Jun 13 j 23:29	9°Π39'41	10.04896 AU					
morning rise	-1177 Jul 01 j 14:48	11°Π56'15		conjunction		-1171 Sep 02 j 02:04	28°Ω17'43	2°05'17
retrograde	-1177 Oct 13 j 01:28	20°Π02'32		minimum elong		-1171 Sep 02 j 02:01	28°Ω17'42	2°05'18
opposition	-1177 Dec 18 j 11:55	16°Π35'29	0°-27'-39	max. Earth dist.		-1171 Sep 02 j 04:44	28°Ω18'31	10.77666 AU
min. Earth dist.	-1177 Dec 18 j 02:41	16°Π37'23	8.09364 AU			-1171 Sep 16 j 06:49	0°Π	
direct	-1176 Feb 24 j 02:25	13°Π05'56		morning rise		-1171 Sep 19 j 00:31	0°Π19'27	
evening set	-1176 Jun 09 j 06:53	21°Π19'03		retrograde		-1171 Dec 27 j 04:41	7°Π27'00	
				opposition		-1170 Mar 05 j 13:34	4°Π08'31	2°41'03
conjunction	-1176 Jun 27 j 10:11	23°Π38'00	0°-5'-7	min. Earth dist.		-1170 Mar 05 j 11:33	4°Π08'54	8.83663 AU
minimum elong	-1176 Jun 27 j 10:11	23°Π38'00	0°05'07	direct		-1170 May 15 j 12:12	0°Π44'24	
behind sun begin	-1176 Jun 27 j 03:05	23°Π35'45		evening set		-1170 Aug 28 j 07:09	8°Π08'42	
behind sun end	-1176 Jun 27 j 17:18	23°Π40'16						
max. Earth dist.	-1176 Jun 27 j 21:35	23°Π41'39	10.14431 AU	conjunction		-1170 Sep 14 j 05:50	10°Π09'11	2°16'11
morning rise	-1176 Jul 15 j 10:14	25°Π55'56		minimum elong		-1170 Sep 14 j 05:48	10°Π09'10	2°16'12
	-1176 Aug 19 j 08:26	0°Θ		max. Earth dist.		-1170 Sep 14 j 06:56	10°Π09'30	10.89086 AU
asc. node	-1176 Aug 23 j 06:50	0°Θ23'56		morning rise		-1170 Sep 30 j 23:52	12°Π08'20	
retrograde	-1176 Oct 25 j 19:50	3°Θ51'28		retrograde		-1169 Jan 08 j 00:16	19°Π09'44	
opposition	-1176 Dec 31 j 08:48	0°Θ26'01	0°14'19	opposition		-1169 Mar 17 j 20:38	15°Π52'06	2°50'32
min. Earth dist.	-1176 Dec 31 j 00:20	0°Θ27'45	8.19868 AU	min. Earth dist.		-1169 Mar 17 j 20:57	15°Π52'02	8.94363 AU

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 20

Attention, astronomical year style is used: The year -1169 in astronomical counting style is the year 1170 BCE in historical counting style.

direct	-1169 May 28 j 02:42	12° $\mathring{M}$ 29'09		opposition	-1163 May 26 j 12:17	23° $\mathring{M}$ 03'31	1°33'40
evening set	-1169 Sep 09 j 06:16	19° $\mathring{M}$ 45'51		min. Earth dist.	-1163 May 26 j 20:15	23° $\mathring{M}$ 02'04	9.12049 AU
				direct	-1163 Aug 05 j 09:30	19° $\mathring{M}$ 45'35	
conjunction	-1169 Sep 26 j 00:53	21° $\mathring{M}$ 44'04	2°21'14	evening set	-1163 Nov 13 j 17:52	26° $\mathring{M}$ 41'33	
minimum elong	-1169 Sep 26 j 00:52	21° $\mathring{M}$ 44'03	2°21'13				
max. Earth dist.	-1169 Sep 25 j 23:17	21° $\mathring{M}$ 43'35	10.98878 AU	conjunction	-1163 Nov 30 j 06:42	28° $\mathring{M}$ 37'15	1°04'52
morning rise	-1169 Oct 12 j 15:36	23° $\mathring{M}$ 41'09		minimum elong	-1163 Nov 30 j 06:44	28° $\mathring{M}$ 37'16	1°04'51
	-1169 Dec 23 j 05:29	0° $\mathring{A}$		max. Earth dist.	-1163 Nov 29 j 21:51	28° $\mathring{M}$ 34'39	11.09439 AU
retrograde	-1168 Jan 19 j 15:27	0° $\mathring{A}$ 37'55			-1163 Dec 12 j 01:10	0° $\mathring{A}$	
	-1168 Feb 16 j 11:54	30° $\mathring{R}$ $\mathring{M}$		morning rise	-1163 Dec 16 j 20:17	0° $\mathring{A}$ 33'17	
opposition	-1168 Mar 28 j 23:23	27° $\mathring{M}$ 20'52	2°52'57	retrograde	-1162 Mar 28 j 12:05	7° $\mathring{A}$ 35'35	
min. Earth dist.	-1168 Mar 29 j 01:41	27° $\mathring{M}$ 20'26	9.03231 AU	opposition	-1162 Jun 07 j 13:09	4° $\mathring{A}$ 16'56	1°03'37
direct	-1168 Jun 08 j 10:04	23° $\mathring{M}$ 59'05		min. Earth dist.	-1162 Jun 07 j 20:49	4° $\mathring{A}$ 15'31	9.06296 AU
	-1168 Sep 09 j 16:53	0° $\mathring{A}$		direct	-1162 Aug 17 j 01:31	0° $\mathring{A}$ 59'08	
evening set	-1168 Sep 19 j 21:41	1° $\mathring{A}$ 09'07		evening set	-1162 Nov 24 j 23:30	7° $\mathring{A}$ 56'44	
conjunction	-1168 Oct 06 j 13:08	3° $\mathring{A}$ 05'36	2°20'35	conjunction	-1162 Dec 11 j 13:43	9° $\mathring{A}$ 53'42	0°38'57
minimum elong	-1168 Oct 06 j 13:08	3° $\mathring{A}$ 05'36	2°20'34	minimum elong	-1162 Dec 11 j 13:45	9° $\mathring{A}$ 53'42	0°38'56
max. Earth dist.	-1168 Oct 06 j 09:15	3° $\mathring{A}$ 04'27	11.06687 AU	max. Earth dist.	-1162 Dec 11 j 04:33	9° $\mathring{A}$ 50'59	11.02572 AU
morning rise	-1168 Oct 23 j 01:28	5° $\mathring{A}$ 01'11		morning rise	-1162 Dec 28 j 05:33	11° $\mathring{A}$ 51'13	
retrograde	-1167 Jan 30 j 03:35	11° $\mathring{A}$ 54'52		retrograde	-1161 Apr 09 j 17:00	18° $\mathring{A}$ 59'58	
opposition	-1167 Apr 09 j 22:52	8° $\mathring{A}$ 38'09	2°48'37	opposition	-1161 Jun 19 j 17:28	15° $\mathring{A}$ 40'14	0°30'38
min. Earth dist.	-1167 Apr 10 j 02:16	8° $\mathring{A}$ 37'31	9.09946 AU	min. Earth dist.	-1161 Jun 20 j 01:25	15° $\mathring{A}$ 38'46	8.98292 AU
direct	-1167 Jun 20 j 12:57	5° $\mathring{A}$ 17'26		direct	-1161 Aug 28 j 17:13	12° $\mathring{A}$ 22'18	
evening set	-1167 Oct 01 j 06:52	12° $\mathring{A}$ 21'57		evening set	-1161 Dec 06 j 09:59	19° $\mathring{A}$ 23'13	
conjunction	-1167 Oct 17 j 20:15	14° $\mathring{A}$ 17'15	2°14'31	conjunction	-1161 Dec 23 j 01:54	21° $\mathring{A}$ 21'46	0°11'07
minimum elong	-1167 Oct 17 j 20:17	14° $\mathring{A}$ 17'16	2°14'31	minimum elong	-1161 Dec 23 j 01:54	21° $\mathring{A}$ 21'46	0°11'06
max. Earth dist.	-1167 Oct 17 j 15:26	14° $\mathring{A}$ 15'51	11.12244 AU	behind sun begin	-1161 Dec 22 j 20:37	21° $\mathring{A}$ 20'13	
morning rise	-1167 Nov 03 j 07:04	16° $\mathring{A}$ 11'52		behind sun end	-1161 Dec 23 j 07:10	21° $\mathring{A}$ 23'20	
retrograde	-1166 Feb 10 j 16:59	23° $\mathring{A}$ 04'04		max. Earth dist.	-1161 Dec 22 j 15:48	21° $\mathring{A}$ 18'46	10.93576 AU
opposition	-1166 Apr 21 j 20:26	19° $\mathring{A}$ 47'27	2°37'59	morning rise	-1160 Jan 08 j 20:28	23° $\mathring{A}$ 21'10	
min. Earth dist.	-1166 Apr 22 j 00:38	19° $\mathring{A}$ 46'41	9.14287 AU		-1160 Mar 24 j 04:14	0° $\mathring{B}$	
direct	-1166 Jul 02 j 10:14	16° $\mathring{A}$ 27'45		retrograde	-1160 Apr 21 j 03:05	0° $\mathring{B}$ 37'51	
evening set	-1166 Oct 12 j 11:34	23° $\mathring{A}$ 27'56		desc. node	-1160 May 16 j 13:59	0° $\mathring{B}$ 07'08	
					-1160 May 19 j 11:10	30° $\mathring{R}$ $\mathring{A}$	
conjunction	-1166 Oct 28 j 23:44	25° $\mathring{A}$ 22'36	2°03'26	opposition	-1160 Jul 01 j 02:35	27° $\mathring{A}$ 16'50	0°-4'-15
minimum elong	-1166 Oct 28 j 23:46	25° $\mathring{A}$ 22'37	2°03'26	min. Earth dist.	-1160 Jul 01 j 10:59	27° $\mathring{A}$ 15'16	8.88315 AU
max. Earth dist.	-1166 Oct 28 j 17:52	25° $\mathring{A}$ 20'54	11.15361 AU	direct	-1160 Sep 08 j 13:53	23° $\mathring{A}$ 58'29	
morning rise	-1166 Nov 14 j 10:00	27° $\mathring{A}$ 16'49			-1160 Dec 07 j 21:37	0° $\mathring{B}$	
	-1166 Dec 09 j 13:30	0° $\mathring{M}$		evening set	-1160 Dec 17 j 02:52	1° $\mathring{B}$ 04'18	
retrograde	-1165 Feb 22 j 05:17	4° $\mathring{M}$ 09'07					
opposition	-1165 May 03 j 17:08	0° $\mathring{M}$ 52'23	2°21'33	conjunction	-1159 Jan 02 j 20:55	3° $\mathring{B}$ 04'48	0°-17'-46
min. Earth dist.	-1165 May 03 j 23:03	0° $\mathring{M}$ 51'18	9.16110 AU	minimum elong	-1159 Jan 02 j 20:54	3° $\mathring{B}$ 04'48	0°17'48
	-1165 May 15 j 18:38	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	-1159 Jan 02 j 11:12	3° $\mathring{B}$ 01'53	10.82757 AU
direct	-1165 Jul 14 j 02:26	27° $\mathring{A}$ 33'28		morning rise	-1159 Jan 19 j 18:25	5° $\mathring{B}$ 06'23	
	-1165 Sep 08 j 18:10	0° $\mathring{M}$		retrograde	-1159 May 03 j 22:22	12° $\mathring{B}$ 32'22	
evening set	-1165 Oct 23 j 13:54	4° $\mathring{M}$ 30'47		opposition	-1159 Jul 13 j 17:14	9° $\mathring{B}$ 09'53	0°-39'-52
				min. Earth dist.	-1159 Jul 14 j 01:06	9° $\mathring{B}$ 08'24	8.76715 AU
conjunction	-1165 Nov 09 j 01:29	6° $\mathring{M}$ 25'19	1°47'46	direct	-1159 Sep 20 j 16:14	5° $\mathring{B}$ 50'51	
minimum elong	-1165 Nov 09 j 01:32	6° $\mathring{M}$ 25'19	1°47'45	evening set	-1159 Dec 29 j 04:05	13° $\mathring{B}$ 03'06	
max. Earth dist.	-1165 Nov 08 j 17:31	6° $\mathring{M}$ 22'59	11.15933 AU				
morning rise	-1165 Nov 25 j 12:15	8° $\mathring{M}$ 19'39		conjunction	-1158 Jan 15 j 00:43	15° $\mathring{B}$ 05'53	0°-46'-29
	-1164 Feb 17 j 01:52	15° $\mathring{M}$		minimum elong	-1158 Jan 15 j 00:41	15° $\mathring{B}$ 05'53	0°46'30
retrograde	-1164 Mar 04 j 19:33	15° $\mathring{M}$ 13'38		max. Earth dist.	-1158 Jan 14 j 16:19	15° $\mathring{B}$ 03'19	10.70485 AU
	-1164 Mar 21 j 16:53	15° $\mathring{R}$ $\mathring{M}$		morning rise	-1158 Feb 01 j 01:16	17° $\mathring{B}$ 09'57	
opposition	-1164 May 14 j 13:56	11° $\mathring{M}$ 56'32	1°59'53	retrograde	-1158 May 17 j 02:45	24° $\mathring{B}$ 46'14	
min. Earth dist.	-1164 May 14 j 21:29	11° $\mathring{M}$ 55'09	9.15355 AU	opposition	-1158 Jul 26 j 13:56	21° $\mathring{B}$ 22'12	-1°-14'-42
direct	-1164 Jul 24 j 18:37	8° $\mathring{M}$ 38'12		min. Earth dist.	-1158 Jul 26 j 20:34	21° $\mathring{B}$ 20'56	8.63892 AU
	-1164 Oct 28 j 15:06	15° $\mathring{M}$		direct	-1158 Oct 02 j 22:33	18° $\mathring{B}$ 02'15	
evening set	-1164 Nov 02 j 15:25	15° $\mathring{M}$ 34'06		evening set	-1157 Jan 10 j 15:07	25° $\mathring{B}$ 22'25	
conjunction	-1164 Nov 19 j 03:14	17° $\mathring{M}$ 29'00	1°28'02	conjunction	-1157 Jan 27 j 14:35	27° $\mathring{B}$ 27'45	-1°-13'-47
minimum elong	-1164 Nov 19 j 03:17	17° $\mathring{M}$ 29'00	1°28'02	minimum elong	-1157 Jan 27 j 14:33	27° $\mathring{B}$ 27'44	1°13'48
max. Earth dist.	-1164 Nov 18 j 18:03	17° $\mathring{M}$ 26'18	11.13940 AU	max. Earth dist.	-1157 Jan 27 j 07:14	27° $\mathring{B}$ 25'28	10.57192 AU
morning rise	-1164 Dec 05 j 15:11	19° $\mathring{M}$ 23'57		morning rise	-1157 Feb 13 j 18:23	29° $\mathring{B}$ 34'30	
retrograde	-1163 Mar 16 j 12:36	26° $\mathring{M}$ 21'17			-1157 Feb 17 j 06:54	0° $\mathring{B}$	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 21

Attention, astronomical year style is used: The year -1157 in astronomical counting style is the year 1158 BCE in historical counting style.

retrograde	-1157 May 30 j 15:48	7° $\approx$ 21'54		max. Earth dist.	-1151 Apr 21 j 12:25	19° $\Upsilon$ 35'40	9.94225 AU
opposition	-1157 Aug 08 j 17:36	3° $\approx$ 56'16	-1°-47'-8	morning rise	-1151 May 09 j 06:51	21° $\Upsilon$ 55'20	
min. Earth dist.	-1157 Aug 08 j 22:50	3° $\approx$ 55'15	8.50317 AU		-1151 Aug 02 j 18:21	0° $\delta$	
direct	-1157 Oct 15 j 12:38	0° $\approx$ 35'13		retrograde	-1151 Aug 24 j 02:19	0° $\delta$ 25'20	
evening set	-1156 Jan 23 j 13:13	8° $\approx$ 04'37			-1151 Sep 14 j 11:29	30° $\mathcal{R}\Upsilon$	
				opposition	-1151 Oct 30 j 03:05	26° $\Upsilon$ 54'24	-2°-29'-58
conjunction	-1156 Feb 09 j 15:41	10° $\approx$ 12'42	-1°-38'-15	min. Earth dist.	-1151 Oct 29 j 20:58	26° $\Upsilon$ 55'41	7.93192 AU
minimum elong	-1156 Feb 09 j 15:38	10° $\approx$ 12'41	1°38'17	direct	-1150 Jan 04 j 06:21	23° $\Upsilon$ 25'31	
max. Earth dist.	-1156 Feb 09 j 08:58	10° $\approx$ 10'35	10.43433 AU		-1150 Apr 04 j 19:39	0° $\delta$	
morning rise	-1156 Feb 26 j 22:59	12° $\approx$ 22'19		evening set	-1150 Apr 18 j 15:47	1° $\delta$ 44'58	
	-1156 Mar 20 j 05:07	15° $\approx$					
retrograde	-1156 Jun 12 j 14:39	20° $\approx$ 21'05		conjunction	-1150 May 06 j 17:55	4° $\delta$ 07'13	-1°-49'-48
opposition	-1156 Aug 21 j 04:37	16° $\approx$ 53'58	-2°-15'-15	minimum elong	-1150 May 06 j 17:59	4° $\delta$ 07'14	1°49'49
min. Earth dist.	-1156 Aug 21 j 08:37	16° $\approx$ 53'10	8.36647 AU	max. Earth dist.	-1150 May 07 j 02:53	4° $\delta$ 10'11	9.92722 AU
	-1156 Sep 15 j 18:19	15° $\mathcal{R}\approx$		morning rise	-1150 May 24 j 21:28	6° $\delta$ 29'56	
direct	-1156 Oct 27 j 10:07	13° $\approx$ 31'38		retrograde	-1150 Sep 07 j 22:40	14° $\delta$ 56'40	
	-1156 Dec 07 j 00:26	15° $\approx$		opposition	-1150 Nov 13 j 14:39	11° $\delta$ 26'12	-2°-2'-39
evening set	-1155 Feb 04 j 23:17	21° $\approx$ 11'08		min. Earth dist.	-1150 Nov 13 j 07:19	11° $\delta$ 27'44	7.93382 AU
				direct	-1149 Jan 18 j 23:48	7° $\delta$ 56'31	
conjunction	-1155 Feb 22 j 05:12	23° $\approx$ 22'05	-1°-58'-20		-1149 Apr 23 j 21:44	15° $\delta$	
minimum elong	-1155 Feb 22 j 05:09	23° $\approx$ 22'04	1°58'22	evening set	-1149 May 04 j 02:12	16° $\delta$ 17'30	
max. Earth dist.	-1155 Feb 21 j 23:55	23° $\approx$ 20'24	10.29966 AU				
morning rise	-1155 Mar 11 j 16:13	25° $\approx$ 34'41		conjunction	-1149 May 22 j 06:39	18° $\delta$ 40'03	-1°-24'-41
	-1155 Apr 19 j 08:12	0° $\mathcal{H}$		minimum elong	-1149 May 22 j 06:42	18° $\delta$ 40'04	1°24'41
retrograde	-1155 Jun 26 j 22:10	3° $\mathcal{H}$ 44'14		max. Earth dist.	-1149 May 22 j 17:00	18° $\delta$ 43'27	9.94697 AU
opposition	-1155 Sep 03 j 22:48	0° $\mathcal{H}$ 15'43	-2°-37'-4	morning rise	-1149 Jun 09 j 11:13	21° $\delta$ 02'36	
min. Earth dist.	-1155 Sep 04 j 01:30	0° $\mathcal{H}$ 15'10	8.23683 AU	retrograde	-1149 Sep 22 j 13:00	29° $\delta$ 22'54	
	-1155 Sep 07 j 05:18	30° $\mathcal{R}\approx$		opposition	-1149 Nov 28 j 00:07	25° $\delta$ 53'20	-1°-27'-41
direct	-1155 Nov 09 j 16:12	26° $\approx$ 51'58		min. Earth dist.	-1149 Nov 27 j 16:11	25° $\delta$ 55'00	7.96992 AU
	-1154 Jan 08 j 17:50	0° $\mathcal{H}$		direct	-1148 Feb 02 j 19:13	22° $\delta$ 23'11	
evening set	-1154 Feb 18 j 21:29	4° $\mathcal{H}$ 41'51			-1148 May 12 j 19:19	0° $\Pi$	
				evening set	-1148 May 18 j 10:37	0° $\Pi$ 42'55	
conjunction	-1154 Mar 08 j 07:19	6° $\mathcal{H}$ 55'42	-2°-12'-29				
minimum elong	-1154 Mar 08 j 07:17	6° $\mathcal{H}$ 55'42	2°12'31	conjunction	-1148 Jun 05 j 15:53	3° $\Pi$ 04'45	0°-54'-26
max. Earth dist.	-1154 Mar 08 j 04:32	6° $\mathcal{H}$ 54'48	10.17596 AU	minimum elong	-1148 Jun 05 j 15:55	3° $\Pi$ 04'46	0°54'26
morning rise	-1154 Mar 25 j 22:09	9° $\mathcal{H}$ 11'10		max. Earth dist.	-1148 Jun 06 j 02:44	3° $\Pi$ 08'18	9.99990 AU
retrograde	-1154 Jul 11 j 11:39	17° $\mathcal{H}$ 30'01		morning rise	-1148 Jun 23 j 19:58	5° $\Pi$ 26'10	
opposition	-1154 Sep 17 j 23:28	14° $\mathcal{H}$ 00'21	-2°-50'-41	retrograde	-1148 Oct 05 j 19:21	13° $\Pi$ 37'39	
min. Earth dist.	-1154 Sep 18 j 00:18	14° $\mathcal{H}$ 00'11	8.12201 AU	opposition	-1148 Dec 11 j 05:33	10° $\Pi$ 09'19	0°-47'-42
direct	-1154 Nov 23 j 09:08	10° $\mathcal{H}$ 35'10		min. Earth dist.	-1148 Dec 10 j 21:30	10° $\Pi$ 10'59	8.03756 AU
evening set	-1153 Mar 05 j 07:16	18° $\mathcal{H}$ 34'57		direct	-1147 Feb 16 j 13:22	6° $\Pi$ 39'03	
				evening set	-1147 Jun 02 j 14:15	14° $\Pi$ 55'03	
conjunction	-1153 Mar 22 j 21:20	20° $\mathcal{H}$ 51'34	-2°-19'-21				
minimum elong	-1153 Mar 22 j 21:20	20° $\mathcal{H}$ 51'34	2°19'22	conjunction	-1147 Jun 20 j 18:34	17° $\Pi$ 15'14	0°-21'-18
max. Earth dist.	-1153 Mar 22 j 21:46	20° $\mathcal{H}$ 51'43	10.07084 AU	minimum elong	-1147 Jun 20 j 18:35	17° $\Pi$ 15'15	0°21'18
morning rise	-1153 Apr 09 j 15:53	23° $\mathcal{H}$ 09'40		max. Earth dist.	-1147 Jun 21 j 05:06	17° $\Pi$ 18'38	10.08215 AU
	-1153 Jun 13 j 11:59	0° $\Upsilon$		morning rise	-1147 Jul 08 j 20:28	19° $\Pi$ 34'36	
retrograde	-1153 Jul 26 j 05:49	1° $\Upsilon$ 35'29		retrograde	-1147 Oct 19 j 17:17	27° $\Pi$ 35'41	
	-1153 Sep 07 j 11:49	30° $\mathcal{R}\mathcal{H}$		opposition	-1147 Dec 25 j 05:26	24° $\Pi$ 08'52	0°-5'-40
opposition	-1153 Oct 02 j 05:27	28° $\mathcal{H}$ 04'59	-2°-54'-30	min. Earth dist.	-1147 Dec 24 j 21:12	24° $\Pi$ 10'33	8.13212 AU
min. Earth dist.	-1153 Oct 02 j 03:55	28° $\mathcal{H}$ 05'18	8.02918 AU	asc. node	-1146 Feb 14 j 12:44	20° $\Pi$ 53'46	
direct	-1153 Dec 07 j 10:05	24° $\mathcal{H}$ 38'25		direct	-1146 Mar 03 j 03:40	20° $\Pi$ 38'51	
	-1152 Feb 25 j 14:28	0° $\Upsilon$		evening set	-1146 Jun 17 j 10:10	28° $\Pi$ 49'05	
evening set	-1152 Mar 19 j 03:10	2° $\Upsilon$ 46'52			-1146 Jun 26 j 18:41	0° $\mathfrak{E}$	
conjunction	-1152 Apr 05 j 21:38	5° $\Upsilon$ 05'58	-2°-17'-57	conjunction	-1146 Jul 05 j 11:53	1° $\mathfrak{E}$ 06'49	0°12'30
minimum elong	-1152 Apr 05 j 21:39	5° $\Upsilon$ 05'58	2°17'59	minimum elong	-1146 Jul 05 j 11:52	1° $\mathfrak{E}$ 06'49	0°12'31
max. Earth dist.	-1152 Apr 06 j 01:33	5° $\Upsilon$ 07'15	9.99117 AU	behind sun begin	-1146 Jul 05 j 07:15	1° $\mathfrak{E}$ 05'21	
morning rise	-1152 Apr 23 j 19:44	7° $\Upsilon$ 26'16		behind sun end	-1146 Jul 05 j 16:29	1° $\mathfrak{E}$ 08'17	
retrograde	-1152 Aug 09 j 03:45	15° $\Upsilon$ 55'58		max. Earth dist.	-1146 Jul 05 j 22:00	1° $\mathfrak{E}$ 10'03	10.18824 AU
opposition	-1152 Oct 15 j 15:18	12° $\Upsilon$ 25'01	-2°-47'-35	morning rise	-1146 Jul 23 j 10:05	3° $\mathfrak{E}$ 23'23	
min. Earth dist.	-1152 Oct 15 j 11:09	12° $\Upsilon$ 25'52	7.96441 AU	retrograde	-1146 Nov 02 j 06:53	11° $\mathfrak{E}$ 13'28	
direct	-1152 Dec 20 j 17:33	8° $\Upsilon$ 57'12		opposition	-1145 Jan 07 j 23:03	7° $\mathfrak{E}$ 48'17	0°35'35
evening set	-1151 Apr 03 j 06:54	17° $\Upsilon$ 12'22		min. Earth dist.	-1145 Jan 07 j 14:43	7° $\mathfrak{E}$ 49'58	8.24759 AU
				direct	-1145 Mar 17 j 12:11	4° $\mathfrak{E}$ 18'55	
conjunction	-1151 Apr 21 j 05:34	19° $\Upsilon$ 33'25	-2°-7'-58	evening set	-1145 Jul 01 j 20:10	12° $\mathfrak{E}$ 21'49	
minimum elong	-1151 Apr 21 j 05:37	19° $\Upsilon$ 33'26	2°07'59				

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Attention, astronomical year style is used: The year -1145 in astronomical counting style is the year 1146 BCE in historical counting style.

conjunction	-1145 Jul 19 j 17:57	14° <del>36</del> 31	0°44'46	conjunction	-1139 Oct 01 j 13:49	28° <del>01</del> 34	2°21'26
minimum elong	-1145 Jul 19 j 17:55	14° <del>36</del> 31	0°44'47	minimum elong	-1139 Oct 01 j 13:49	28° <del>01</del> 34	2°21'26
max. Earth dist.	-1145 Jul 20 j 03:35	14° <del>39</del> 34	10.31164 AU	max. Earth dist.	-1139 Oct 01 j 12:29	28° <del>01</del> 10	11.03962 AU
morning rise	-1145 Aug 06 j 11:17	16° <del>49</del> 49		morning rise	-1139 Oct 18 j 03:02	29° <del>05</del> 47	
retrograde	-1145 Nov 15 j 11:05	24° <del>28</del> 58			-1139 Oct 18 j 10:43	0° <del>00</del>	
opposition	-1144 Jan 21 j 09:46	21° <del>05</del> 29	1°13'43	retrograde	-1138 Jan 25 j 05:23	6° <del>52</del> 54	
min. Earth dist.	-1144 Jan 21 j 01:52	21° <del>07</del> 04	8.37709 AU	opposition	-1138 Apr 04 j 17:50	3° <del>36</del> 34	2°51'16
direct	-1144 Mar 30 j 14:08	17° <del>37</del> 04		min. Earth dist.	-1138 Apr 04 j 20:12	3° <del>36</del> 07	9.07844 AU
evening set	-1144 Jul 14 j 19:28	25° <del>31</del> 41		direct	-1138 Jun 15 j 05:02	0° <del>15</del> 54	
				evening set	-1138 Sep 26 j 09:21	7° <del>23</del> 02	
conjunction	-1144 Aug 01 j 12:20	27° <del>43</del> 03	1°13'53	conjunction	-1138 Oct 12 j 23:36	9° <del>18</del> 49	2°17'53
minimum elong	-1144 Aug 01 j 12:17	27° <del>43</del> 02	1°13'54	minimum elong	-1138 Oct 12 j 23:37	9° <del>18</del> 49	2°17'52
max. Earth dist.	-1144 Aug 01 j 21:02	27° <del>45</del> 46	10.44526 AU	max. Earth dist.	-1138 Oct 12 j 19:25	9° <del>17</del> 35	11.10757 AU
morning rise	-1144 Aug 19 j 00:08	29° <del>52</del> 53		morning rise	-1138 Oct 29 j 10:59	11° <del>13</del> 48	
	-1144 Aug 19 j 23:33	0° <del>00</del>		retrograde	-1137 Feb 05 j 18:07	18° <del>06</del> 35	
retrograde	-1144 Nov 27 j 06:47	7° <del>21</del> 40		opposition	-1137 Apr 16 j 16:35	14° <del>50</del> 30	2°43'32
opposition	-1143 Feb 02 j 13:29	3° <del>59</del> 52	1°46'53	min. Earth dist.	-1137 Apr 16 j 21:27	14° <del>49</del> 36	9.13394 AU
min. Earth dist.	-1143 Feb 02 j 07:03	4° <del>01</del> 09	8.51349 AU	direct	-1137 Jun 27 j 05:03	11° <del>30</del> 49	
direct	-1143 Apr 13 j 07:41	0° <del>32</del> 37		evening set	-1137 Oct 07 j 16:28	18° <del>33</del> 03	
evening set	-1143 Jul 28 j 07:25	8° <del>18</del> 30					
conjunction	-1143 Aug 14 j 18:48	10° <del>26</del> 27	1°38'33	conjunction	-1137 Oct 24 j 05:00	20° <del>27</del> 56	2°09'05
minimum elong	-1143 Aug 14 j 18:45	10° <del>26</del> 26	1°38'34	minimum elong	-1137 Oct 24 j 05:02	20° <del>27</del> 57	2°09'05
max. Earth dist.	-1143 Aug 15 j 01:44	10° <del>28</del> 35	10.58204 AU	max. Earth dist.	-1137 Oct 23 j 22:08	20° <del>25</del> 56	11.14999 AU
morning rise	-1143 Sep 01 j 00:57	12° <del>32</del> 50		morning rise	-1137 Nov 09 j 15:33	22° <del>22</del> 16	
	-1143 Sep 22 j 07:01	15° <del>00</del>		retrograde	-1136 Feb 17 j 05:35	29° <del>14</del> 25	
retrograde	-1143 Dec 09 j 19:03	19° <del>52</del> 13		opposition	-1136 Apr 27 j 13:49	25° <del>58</del> 15	2°29'44
opposition	-1142 Feb 15 j 10:47	16° <del>32</del> 01	2°13'51	min. Earth dist.	-1136 Apr 27 j 20:03	25° <del>57</del> 07	9.16263 AU
min. Earth dist.	-1142 Feb 15 j 06:23	16° <del>32</del> 52	8.64987 AU	direct	-1136 Jul 08 j 00:57	22° <del>39</del> 24	
	-1142 Mar 07 j 22:58	15° <del>00</del>		evening set	-1136 Oct 17 j 20:05	29° <del>38</del> 08	
direct	-1142 Apr 26 j 16:44	13° <del>06</del> 05			-1136 Oct 21 j 00:30	0° <del>00</del>	
	-1142 Jun 14 j 14:12	15° <del>00</del>		conjunction	-1136 Nov 03 j 07:53	1° <del>32</del> 41	1°55'30
evening set	-1142 Aug 10 j 07:51	20° <del>43</del> 08		minimum elong	-1136 Nov 03 j 07:55	1° <del>32</del> 41	1°55'29
conjunction	-1142 Aug 27 j 13:40	22° <del>47</del> 49	1°57'57	max. Earth dist.	-1136 Nov 03 j 00:04	1° <del>30</del> 24	11.16523 AU
minimum elong	-1142 Aug 27 j 13:37	22° <del>47</del> 48	1°57'58	morning rise	-1136 Nov 19 j 18:19	3° <del>26</del> 53	
max. Earth dist.	-1142 Aug 27 j 17:53	22° <del>49</del> 06	10.71542 AU	retrograde	-1135 Feb 27 j 21:04	10° <del>20</del> 06	
morning rise	-1142 Sep 13 j 14:35	24° <del>51</del> 01		opposition	-1135 May 09 j 10:52	7° <del>03</del> 34	2°10'27
	-1142 Nov 02 j 18:06	0° <del>00</del>		min. Earth dist.	-1135 May 09 j 17:56	7° <del>02</del> 17	9.16386 AU
retrograde	-1142 Dec 21 j 21:50	2° <del>02</del> 13		direct	-1135 Jul 19 j 18:57	3° <del>45</del> 18	
	-1141 Feb 10 j 22:53	30° <del>00</del>		evening set	-1135 Oct 28 j 22:12	10° <del>41</del> 57	
opposition	-1141 Feb 28 j 01:54	28° <del>43</del> 23	2°33'54	conjunction	-1135 Nov 14 j 09:58	12° <del>36</del> 40	1°37'35
min. Earth dist.	-1141 Feb 27 j 23:10	28° <del>43</del> 55	8.77985 AU	minimum elong	-1135 Nov 14 j 10:01	12° <del>36</del> 41	1°37'35
direct	-1141 May 09 j 18:54	25° <del>18</del> 50		max. Earth dist.	-1135 Nov 14 j 01:06	12° <del>34</del> 05	11.15339 AU
	-1141 Jul 28 j 22:09	0° <del>00</del>		morning rise	-1135 Nov 30 j 21:08	14° <del>31</del> 18	
evening set	-1141 Aug 22 j 21:33	2° <del>47</del> 20			-1135 Dec 05 j 02:14	15° <del>00</del>	
conjunction	-1141 Sep 08 j 22:19	4° <del>49</del> 05	2°11'38	retrograde	-1134 Mar 11 j 13:05	21° <del>27</del> 09	
minimum elong	-1141 Sep 08 j 22:16	4° <del>49</del> 04	2°11'38	opposition	-1134 May 21 j 08:54	18° <del>09</del> 56	1°46'17
max. Earth dist.	-1141 Sep 09 j 00:06	4° <del>49</del> 37	10.83951 AU	min. Earth dist.	-1134 May 21 j 17:11	18° <del>08</del> 25	9.13835 AU
morning rise	-1141 Sep 25 j 18:33	6° <del>49</del> 28			-1134 Jul 18 j 11:15	15° <del>00</del>	
retrograde	-1140 Jan 02 j 20:19	13° <del>53</del> 51		direct	-1134 Jul 31 j 08:50	14° <del>51</del> 59	
opposition	-1140 Mar 11 j 11:20	10° <del>36</del> 08	2°46'46		-1134 Aug 13 j 05:54	15° <del>00</del>	
min. Earth dist.	-1140 Mar 11 j 09:48	10° <del>36</del> 25	8.89773 AU	evening set	-1134 Nov 09 j 00:27	21° <del>48</del> 02	
direct	-1140 May 21 j 14:28	7° <del>12</del> 58		conjunction	-1134 Nov 25 j 12:45	23° <del>43</del> 23	1°15'57
evening set	-1140 Sep 03 j 01:28	14° <del>33</del> 28		minimum elong	-1134 Nov 25 j 12:47	23° <del>43</del> 23	1°15'56
conjunction	-1140 Sep 19 j 21:58	16° <del>32</del> 43	2°19'26	max. Earth dist.	-1134 Nov 25 j 02:04	23° <del>40</del> 15	11.11544 AU
minimum elong	-1140 Sep 19 j 21:57	16° <del>32</del> 43	2°19'26	morning rise	-1134 Dec 12 j 01:34	25° <del>38</del> 55	
max. Earth dist.	-1140 Sep 19 j 22:14	16° <del>32</del> 48	10.94907 AU		-1133 Jan 23 j 13:14	0° <del>00</del>	
morning rise	-1140 Oct 06 j 14:14	18° <del>30</del> 45		retrograde	-1133 Mar 23 j 08:40	2° <del>39</del> 00	
retrograde	-1139 Jan 13 j 15:13	25° <del>29</del> 44			-1133 May 24 j 09:55	30° <del>00</del>	
opposition	-1139 Mar 23 j 16:21	22° <del>12</del> 51	2°52'29	opposition	-1133 Jun 02 j 08:52	29° <del>20</del> 49	1°17'55
min. Earth dist.	-1139 Mar 23 j 16:21	22° <del>12</del> 51	8.99859 AU	min. Earth dist.	-1133 Jun 02 j 18:31	29° <del>19</del> 03	9.08734 AU
direct	-1139 Jun 03 j 00:44	18° <del>51</del> 02		direct	-1133 Aug 12 j 00:51	26° <del>02</del> 53	
evening set	-1139 Sep 14 j 20:50	26° <del>04</del> 19			-1133 Oct 23 j 12:45	0° <del>00</del>	
				evening set	-1133 Nov 20 j 04:46	2° <del>59</del> 55	



# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 23

Attention, astronomical year style is used: The year -1133 in astronomical counting style is the year 1134 BCE in historical counting style.

conjunction	-1133 Dec 06 j 18:12	4°♂56'19	0°51'13	conjunction	-1126 Feb 16 j 08:37	17°♂32'57	-1°-49'-47
minimum elong	-1133 Dec 06 j 18:14	4°♂56'20	0°51'11	minimum elong	-1126 Feb 16 j 08:34	17°♂32'56	1°49'49
max. Earth dist.	-1133 Dec 06 j 06:56	4°♂53'00	11.05282 AU	max. Earth dist.	-1126 Feb 16 j 04:15	17°♂31'34	10.34158 AU
morning rise	-1133 Dec 23 j 09:06	6°♂53'12		morning rise	-1126 Mar 05 j 17:54	19°♂44'24	
retrograde	-1132 Apr 03 j 10:02	13°♂59'04		retrograde	-1126 Jun 20 j 16:49	27°♂49'47	
opposition	-1132 Jun 13 j 11:42	10°♂39'40	0°46'11	opposition	-1126 Aug 29 j 00:42	24°♂21'14	-2°-28'-4
min. Earth dist.	-1132 Jun 13 j 21:25	10°♂37'53	9.01272 AU	min. Earth dist.	-1126 Aug 29 j 03:00	24°♂20'47	8.27753 AU
direct	-1132 Aug 22 j 18:10	7°♂21'30		direct	-1126 Nov 04 j 00:19	20°♂57'36	
evening set	-1132 Nov 30 j 12:52	14°♂21'06		evening set	-1125 Feb 12 j 21:02	28°♂43'21	
					-1125 Feb 22 j 22:22	0°♂	
conjunction	-1132 Dec 17 j 04:02	16°♂19'00	0°24'09	conjunction	-1125 Mar 02 j 05:11	0°♂56'05	-2°-6'-51
minimum elong	-1132 Dec 17 j 04:03	16°♂19'00	0°24'08	minimum elong	-1125 Mar 02 j 05:08	0°♂56'04	2°06'53
max. Earth dist.	-1132 Dec 16 j 17:29	16°♂15'52	10.96774 AU	max. Earth dist.	-1125 Mar 02 j 03:04	0°♂55'24	10.21502 AU
morning rise	-1131 Jan 02 j 21:18	18°♂17'36		morning rise	-1125 Mar 19 j 18:08	3°♂10'25	
retrograde	-1131 Apr 15 j 17:54	25°♂30'50		retrograde	-1125 Jul 05 j 04:32	11°♂25'52	
opposition	-1131 Jun 25 j 18:45	22°♂10'00	0°12'01	opposition	-1125 Sep 11 j 22:47	7°♂56'11	-2°-45'-40
min. Earth dist.	-1131 Jun 26 j 03:34	22°♂08'22	8.91722 AU	min. Earth dist.	-1125 Sep 11 j 22:52	7°♂56'10	8.15842 AU
direct	-1131 Sep 03 j 13:43	18°♂51'23		direct	-1125 Nov 17 j 11:54	4°♂31'17	
desc. node	-1131 Nov 01 j 13:07	21°♂38'20		evening set	-1124 Feb 27 j 01:46	12°♂27'11	
evening set	-1131 Dec 12 j 02:38	25°♂55'11					
conjunction	-1131 Dec 28 j 19:49	27°♂54'55	0°-4'-26	conjunction	-1124 Mar 15 j 13:52	14°♂42'44	-2°-17'-11
minimum elong	-1131 Dec 28 j 19:50	27°♂54'55	0°04'28	minimum elong	-1124 Mar 15 j 13:51	14°♂42'43	2°17'13
behind sun begin	-1131 Dec 28 j 12:57	27°♂52'53		max. Earth dist.	-1124 Mar 15 j 14:10	14°♂42'50	10.10414 AU
behind sun end	-1131 Dec 29 j 02:43	27°♂56'58		morning rise	-1124 Apr 02 j 06:39	16°♂59'48	
max. Earth dist.	-1131 Dec 28 j 09:48	27°♂51'56	10.86326 AU	retrograde	-1124 Jul 18 j 22:10	25°♂23'24	
morning rise	-1130 Jan 14 j 15:52	29°♂55'36		opposition	-1124 Sep 25 j 03:00	21°♂52'56	-2°-54'-4
	-1130 Jan 15 j 06:50	0°♂		min. Earth dist.	-1124 Sep 25 j 01:07	21°♂53'19	8.05848 AU
retrograde	-1130 Apr 28 j 10:28	7°♂17'38		direct	-1124 Nov 30 j 08:15	18°♂26'48	
opposition	-1130 Jul 08 j 06:54	3°♂55'15	0°-23'-27	evening set	-1123 Mar 12 j 17:39	26°♂31'59	
min. Earth dist.	-1130 Jul 08 j 14:58	3°♂53'44	8.80430 AU				
direct	-1130 Sep 15 j 12:27	0°♂35'57		conjunction	-1123 Mar 30 j 10:00	28°♂50'08	-2°-19'-37
evening set	-1130 Dec 24 j 00:05	7°♂45'35		minimum elong	-1123 Mar 30 j 10:00	28°♂50'08	2°19'39
				max. Earth dist.	-1123 Mar 30 j 12:48	28°♂51'03	10.01604 AU
conjunction	-1129 Jan 09 j 19:30	9°♂47'29	0°-33'-20		-1123 Apr 08 j 07:33	0°♂	
minimum elong	-1129 Jan 09 j 19:29	9°♂47'29	0°33'21	morning rise	-1123 Apr 17 j 06:37	1°♂09'39	
max. Earth dist.	-1129 Jan 09 j 09:19	9°♂44'23	10.74326 AU	retrograde	-1123 Aug 02 j 20:04	9°♂38'33	
morning rise	-1129 Jan 26 j 18:42	11°♂50'34		opposition	-1123 Oct 09 j 11:48	6°♂07'41	-2°-52'-3
retrograde	-1129 May 11 j 10:21	19°♂22'33		min. Earth dist.	-1123 Oct 09 j 08:17	6°♂08'25	7.98426 AU
opposition	-1129 Jul 21 j 00:53	15°♂58'35	0°-58'-53	direct	-1123 Dec 14 j 12:56	2°♂40'25	
min. Earth dist.	-1129 Jul 21 j 08:39	15°♂57'06	8.67828 AU	evening set	-1122 Mar 27 j 18:41	10°♂53'18	
direct	-1129 Sep 27 j 15:35	12°♂38'23					
evening set	-1128 Jan 05 j 06:34	19°♂55'27		conjunction	-1122 Apr 14 j 15:20	13°♂13'38	-2°-13'-30
				minimum elong	-1122 Apr 14 j 15:22	13°♂13'38	2°13'31
conjunction	-1128 Jan 22 j 04:37	21°♂59'47	-1°-1'-29	max. Earth dist.	-1122 Apr 14 j 20:51	13°♂15'27	9.95669 AU
minimum elong	-1128 Jan 22 j 04:34	21°♂59'46	1°01'30	morning rise	-1122 May 02 j 15:25	15°♂35'02	
max. Earth dist.	-1128 Jan 21 j 19:20	21°♂56'55	10.61245 AU	retrograde	-1122 Aug 17 j 19:13	24°♂05'50	
morning rise	-1128 Feb 08 j 07:05	24°♂05'30		opposition	-1122 Oct 23 j 23:32	20°♂35'00	-2°-39'-8
	-1128 Apr 06 j 10:13	0°♂		min. Earth dist.	-1122 Oct 23 j 18:14	20°♂36'06	7.94086 AU
retrograde	-1128 May 23 j 18:09	1°♂48'24		direct	-1122 Dec 29 j 00:50	17°♂06'47	
	-1128 Jul 11 j 05:50	30°♂		evening set	-1121 Apr 12 j 02:02	25°♂25'03	
opposition	-1128 Aug 02 j 01:44	28°♂22'49	-1°-32'-42				
min. Earth dist.	-1128 Aug 02 j 08:27	28°♂21'31	8.54437 AU	conjunction	-1121 Apr 30 j 02:33	27°♂46'53	-1°-58'-53
direct	-1128 Oct 09 j 03:38	25°♂01'35		minimum elong	-1121 Apr 30 j 02:37	27°♂46'54	1°58'54
	-1128 Dec 27 j 01:44	0°♂		max. Earth dist.	-1121 Apr 30 j 10:57	27°♂49'40	9.93028 AU
evening set	-1127 Jan 16 j 23:26	2°♂27'20			-1121 May 17 j 00:11	0°♂	
				morning rise	-1121 May 18 j 05:21	0°♂09'26	
conjunction	-1127 Feb 03 j 00:32	4°♂34'22	-1°-27'-29	retrograde	-1121 Sep 01 j 16:43	8°♂38'28	
minimum elong	-1127 Feb 03 j 00:29	4°♂34'21	1°27'30	opposition	-1121 Nov 07 j 12:02	5°♂08'06	-2°-15'-56
max. Earth dist.	-1127 Feb 02 j 17:33	4°♂32'11	10.47643 AU	min. Earth dist.	-1121 Nov 07 j 04:48	5°♂09'37	7.93142 AU
morning rise	-1127 Feb 20 j 06:21	6°♂42'54		direct	-1120 Jan 12 j 18:09	1°♂39'10	
retrograde	-1127 Jun 06 j 12:51	14°♂37'11		evening set	-1120 Apr 26 j 12:37	10°♂00'04	
opposition	-1127 Aug 15 j 09:42	11°♂10'02	-2°-3'-5				
min. Earth dist.	-1127 Aug 15 j 14:29	11°♂09'05	8.40857 AU	conjunction	-1120 May 14 j 16:10	12°♂22'35	-1°-36'-39
direct	-1127 Oct 21 j 22:16	7°♂47'38		minimum elong	-1120 May 14 j 16:14	12°♂22'36	1°36'40
	-1126 Jan 27 j 01:19	15°♂		max. Earth dist.	-1120 May 15 j 02:54	12°♂26'07	9.93874 AU
evening set	-1126 Jan 30 j 04:07	15°♂23'06		morning rise	-1120 Jun 01 j 20:33	14°♂45'21	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 24

Attention, astronomical year style is used: The year -1120 in astronomical counting style is the year 1121 BCE in historical counting style.

	-1120 Jun 03 j 18:05	15°♄		conjunction	-1114 Aug 09 j 08:30	5°♄06'16	1°28'12
retrograde	-1120 Sep 15 j 09:37	23°♄09'08		minimum elong	-1114 Aug 09 j 08:27	5°♄06'15	1°28'13
opposition	-1120 Nov 20 j 23:03	19°♄39'36	-1°-44'-4	max. Earth dist.	-1114 Aug 09 j 13:57	5°♄07'57	10.52047 AU
min. Earth dist.	-1120 Nov 20 j 14:18	19°♄41'26	7.95655 AU	morning rise	-1114 Aug 26 j 17:22	7°♄14'15	
direct	-1119 Jan 26 j 13:31	16°♄10'11		retrograde	-1114 Dec 04 j 16:41	14°♄38'07	
evening set	-1119 May 11 j 22:54	24°♄30'50		opposition	-1113 Feb 10 j 04:14	11°♄17'22	2°02'43
				min. Earth dist.	-1113 Feb 09 j 23:21	11°♄18'19	8.58658 AU
conjunction	-1119 May 30 j 04:05	26°♄53'04	-1°-8'-26	direct	-1113 Apr 21 j 05:32	7°♄50'55	
minimum elong	-1119 May 30 j 04:08	26°♄53'05	1°08'26		-1113 Jul 31 j 11:43	15°♄	
max. Earth dist.	-1119 May 30 j 16:12	26°♄57'02	9.98106 AU	evening set	-1113 Aug 05 j 00:39	15°♄32'19	
morning rise	-1119 Jun 17 j 08:33	29°♄15'03					
	-1119 Jun 23 j 05:56	0°♄		conjunction	-1113 Aug 22 j 09:05	17°♄38'33	1°50'03
retrograde	-1119 Sep 29 j 20:04	7°♄30'46		minimum elong	-1113 Aug 22 j 09:02	17°♄38'32	1°50'04
opposition	-1119 Dec 05 j 06:44	4°♄02'23	-1°-5'-58	max. Earth dist.	-1113 Aug 22 j 13:28	17°♄39'53	10.65142 AU
min. Earth dist.	-1119 Dec 04 j 21:15	4°♄04'21	8.01388 AU	morning rise	-1113 Sep 08 j 12:24	19°♄43'15	
direct	-1118 Feb 10 j 07:56	0°♄32'44		retrograde	-1113 Dec 17 j 00:42	26°♄58'26	
evening set	-1118 May 27 j 05:25	8°♄50'30		opposition	-1112 Feb 22 j 22:25	23°♄38'56	2°25'58
				min. Earth dist.	-1112 Feb 22 j 19:05	23°♄39'35	8.71539 AU
conjunction	-1118 Jun 14 j 10:26	11°♄11'27	0°-36'-18	direct	-1112 May 03 j 11:03	20°♄13'39	
minimum elong	-1118 Jun 14 j 10:28	11°♄11'27	0°36'18	evening set	-1112 Aug 16 j 19:36	27°♄46'23	
max. Earth dist.	-1118 Jun 14 j 22:50	11°♄15'28	10.05330 AU				
morning rise	-1118 Jul 02 j 13:20	13°♄31'42		conjunction	-1112 Sep 02 j 22:49	29°♄49'33	2°06'20
retrograde	-1118 Oct 13 j 23:18	21°♄37'29		minimum elong	-1112 Sep 02 j 22:47	29°♄49'32	2°06'21
opposition	-1118 Dec 19 j 09:26	18°♄10'29	0°-24'-30	max. Earth dist.	-1112 Sep 03 j 01:30	29°♄50'21	10.77570 AU
min. Earth dist.	-1118 Dec 19 j 00:23	18°♄12'21	8.09842 AU		-1112 Sep 04 j 09:28	0°♄	
direct	-1117 Feb 24 j 23:28	14°♄40'56		morning rise	-1112 Sep 19 j 21:01	1°♄51'16	
evening set	-1117 Jun 11 j 05:14	22°♄53'42		retrograde	-1112 Dec 28 j 02:04	8°♄59'00	
				opposition	-1111 Mar 06 j 10:45	5°♄40'35	2°42'04
conjunction	-1117 Jun 29 j 08:21	25°♄12'32	0°-2'-35	min. Earth dist.	-1111 Mar 06 j 09:37	5°♄40'47	8.83483 AU
minimum elong	-1117 Jun 29 j 08:21	25°♄12'32	0°02'36	direct	-1111 May 16 j 09:08	2°♄16'28	
behind sun begin	-1117 Jun 29 j 01:01	25°♄10'12		evening set	-1111 Aug 29 j 04:14	9°♄40'59	
behind sun end	-1117 Jun 29 j 15:41	25°♄14'51					
max. Earth dist.	-1117 Jun 29 j 19:39	25°♄16'08	10.14943 AU	conjunction	-1111 Sep 15 j 02:39	11°♄41'27	2°16'46
morning rise	-1117 Jul 17 j 08:11	27°♄30'18		minimum elong	-1111 Sep 15 j 02:37	11°♄41'27	2°16'46
asc. node	-1117 Jul 27 j 21:45	28°♄48'41		max. Earth dist.	-1111 Sep 15 j 02:47	11°♄41'30	10.88812 AU
	-1117 Aug 06 j 22:33	0°♄		morning rise	-1111 Oct 01 j 20:37	13°♄40'37	
retrograde	-1117 Oct 27 j 17:57	5°♄25'18		retrograde	-1110 Jan 08 j 21:19	20°♄42'20	
opposition	-1116 Jan 02 j 06:07	1°♄59'54	0°17'25	opposition	-1110 Mar 18 j 18:10	17°♄24'43	2°50'57
min. Earth dist.	-1116 Jan 01 j 22:21	2°♄01'28	8.20393 AU	min. Earth dist.	-1110 Mar 18 j 19:05	17°♄24'32	8.94006 AU
	-1116 Jan 28 j 11:43	30°♄		direct	-1110 May 28 j 23:37	14°♄01'48	
direct	-1116 Mar 10 j 10:22	28°♄30'45		evening set	-1110 Sep 10 j 03:26	21°♄18'45	
	-1116 Apr 21 j 03:22	0°♄					
evening set	-1116 Jun 24 j 20:16	6°♄37'01		conjunction	-1110 Sep 26 j 21:52	23°♄17'00	2°21'19
				minimum elong	-1110 Sep 26 j 21:52	23°♄16'59	2°21'18
conjunction	-1116 Jul 12 j 19:56	8°♄53'05	0°30'40	max. Earth dist.	-1110 Sep 26 j 19:34	23°♄16'19	10.98434 AU
minimum elong	-1116 Jul 12 j 19:55	8°♄53'05	0°30'41	morning rise	-1110 Oct 13 j 12:35	25°♄14'09	
max. Earth dist.	-1116 Jul 13 j 05:14	8°♄56'02	10.26326 AU		-1110 Nov 29 j 13:27	0°♄	
morning rise	-1116 Jul 30 j 15:31	11°♄07'51		retrograde	-1109 Jan 20 j 12:18	2°♄11'21	
retrograde	-1116 Nov 09 j 02:19	18°♄51'57			-1109 Mar 15 j 21:30	30°♄	
opposition	-1115 Jan 14 j 20:18	15°♄28'12	0°57'14	opposition	-1109 Mar 30 j 21:17	28°♄54'15	2°52'46
min. Earth dist.	-1115 Jan 14 j 13:48	15°♄29'31	8.32448 AU	min. Earth dist.	-1109 Mar 30 j 23:16	28°♄53'53	9.02704 AU
direct	-1115 Mar 24 j 16:37	11°♄59'45		direct	-1109 Jun 10 j 08:35	25°♄32'29	
evening set	-1115 Jul 09 j 01:08	19°♄58'22			-1109 Aug 27 j 22:42	0°♄	
				evening set	-1109 Sep 21 j 18:58	2°♄42'49	
conjunction	-1115 Jul 26 j 20:09	22°♄11'15	1°01'24				
minimum elong	-1115 Jul 26 j 20:07	22°♄11'14	1°01'25	conjunction	-1109 Oct 08 j 10:29	4°♄39'23	2°20'10
max. Earth dist.	-1115 Jul 27 j 03:21	22°♄13'30	10.38896 AU	minimum elong	-1109 Oct 08 j 10:29	4°♄39'23	2°20'09
morning rise	-1115 Aug 13 j 10:36	24°♄22'41		max. Earth dist.	-1109 Oct 08 j 07:03	4°♄38'22	11.06082 AU
	-1115 Oct 05 j 23:54	0°♄		morning rise	-1109 Oct 24 j 22:45	6°♄35'02	
retrograde	-1115 Nov 22 j 00:53	1°♄56'16		retrograde	-1108 Feb 01 j 03:15	13°♄29'13	
	-1114 Jan 09 j 11:34	30°♄		opposition	-1108 Apr 10 j 21:06	10°♄12'27	2°47'51
opposition	-1114 Jan 28 j 03:37	28°♄34'06	1°32'50	min. Earth dist.	-1108 Apr 11 j 00:08	10°♄11'53	9.09261 AU
min. Earth dist.	-1114 Jan 27 j 22:04	28°♄35'12	8.45415 AU	direct	-1108 Jun 21 j 10:55	6°♄51'45	
direct	-1114 Apr 07 j 15:35	25°♄06'33		evening set	-1108 Oct 02 j 04:29	13°♄56'35	
	-1114 Jun 27 j 04:54	0°♄					
evening set	-1114 Jul 22 j 18:44	2°♄56'45		conjunction	-1108 Oct 18 j 17:56	15°♄52'01	2°13'37
				minimum elong	-1108 Oct 18 j 17:58	15°♄52'01	2°13'37

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 25

Attention, astronomical year style is used: The year -1108 in astronomical counting style is the year 1109 BCE in historical counting style.

max. Earth dist.	-1108 Oct 18 j 13:27	15° $\overline{\Delta}$ 50'42	11.11489 AU	behind sun begin	-1102 Dec 23 j 20:00	23° $\overline{\Delta}$ 02'05	
morning rise	-1108 Nov 04 j 04:43	17° $\overline{\Delta}$ 46'44		behind sun end	-1102 Dec 24 j 08:25	23° $\overline{\Delta}$ 05'45	
retrograde	-1107 Feb 11 j 15:20	24° $\overline{\Delta}$ 39'28		max. Earth dist.	-1102 Dec 23 j 16:25	23° $\overline{\Delta}$ 01'00	10.92522 AU
opposition	-1107 Apr 22 j 19:10	21° $\overline{\Delta}$ 22'47	2°36'37	morning rise	-1101 Jan 09 j 21:03	25° $\overline{\Delta}$ 03'29	
min. Earth dist.	-1107 Apr 22 j 23:50	21° $\overline{\Delta}$ 21'56	9.13462 AU		-1101 Feb 27 j 04:35	0° $\overline{\Delta}$	
direct	-1107 Jul 03 j 07:09	18° $\overline{\Delta}$ 03'03		desc. node	-1101 Apr 10 j 23:50	2° $\overline{\Delta}$ 13'36	
evening set	-1107 Oct 13 j 09:34	25° $\overline{\Delta}$ 03'38		retrograde	-1101 Apr 23 j 05:10	2° $\overline{\Delta}$ 20'55	
					-1101 Jun 19 j 12:46	30° $\overline{\Delta}$ 1	
conjunction	-1107 Oct 29 j 21:40	26° $\overline{\Delta}$ 58'25	2°02'04	opposition	-1101 Jul 03 j 04:13	28° $\overline{\Delta}$ 59'45	0°-7'-48
minimum elong	-1107 Oct 29 j 21:43	26° $\overline{\Delta}$ 58'26	2°02'04	min. Earth dist.	-1101 Jul 03 j 12:20	28° $\overline{\Delta}$ 58'14	8.87293 AU
max. Earth dist.	-1107 Oct 29 j 15:07	26° $\overline{\Delta}$ 56'30	11.14481 AU	direct	-1101 Sep 10 j 15:39	25° $\overline{\Delta}$ 41'17	
morning rise	-1107 Nov 15 j 08:06	28° $\overline{\Delta}$ 52'46			-1101 Nov 24 j 05:11	0° $\overline{\Delta}$	
	-1107 Nov 25 j 07:25	0° $\overline{\Delta}$		evening set	-1101 Dec 19 j 03:40	2° $\overline{\Delta}$ 47'38	
retrograde	-1106 Feb 23 j 04:32	5° $\overline{\Delta}$ 45'40					
opposition	-1106 May 04 j 16:23	2° $\overline{\Delta}$ 28'50	2°19'38	conjunction	-1100 Jan 04 j 21:58	4° $\overline{\Delta}$ 48'19	0°-20'-38
min. Earth dist.	-1106 May 04 j 22:51	2° $\overline{\Delta}$ 27'39	9.15178 AU	minimum elong	-1100 Jan 04 j 21:58	4° $\overline{\Delta}$ 48'19	0°20'40
	-1106 Jun 11 j 23:55	30° $\overline{\Delta}$ 1		max. Earth dist.	-1100 Jan 04 j 13:29	4° $\overline{\Delta}$ 45'45	10.81776 AU
direct	-1106 Jul 15 j 01:43	29° $\overline{\Delta}$ 09'52		morning rise	-1100 Jan 21 j 19:35	6° $\overline{\Delta}$ 50'05	
	-1106 Aug 16 j 13:25	0° $\overline{\Delta}$		retrograde	-1100 May 05 j 01:04	14° $\overline{\Delta}$ 16'45	
evening set	-1106 Oct 24 j 12:11	6° $\overline{\Delta}$ 07'35		opposition	-1100 Jul 14 j 19:11	10° $\overline{\Delta}$ 54'08	0°-43'-21
				min. Earth dist.	-1100 Jul 15 j 02:00	10° $\overline{\Delta}$ 52'51	8.75797 AU
conjunction	-1106 Nov 09 j 23:50	8° $\overline{\Delta}$ 02'16	1°45'58	direct	-1100 Sep 21 j 17:00	7° $\overline{\Delta}$ 35'03	
minimum elong	-1106 Nov 09 j 23:53	8° $\overline{\Delta}$ 02'17	1°45'58	evening set	-1100 Dec 30 j 05:34	14° $\overline{\Delta}$ 47'48	
max. Earth dist.	-1106 Nov 09 j 15:43	7° $\overline{\Delta}$ 59'54	11.14963 AU				
morning rise	-1106 Nov 26 j 10:49	9° $\overline{\Delta}$ 56'47		conjunction	-1099 Jan 16 j 02:22	16° $\overline{\Delta}$ 50'44	0°-49'-14
	-1105 Jan 17 j 04:00	15° $\overline{\Delta}$		minimum elong	-1099 Jan 16 j 02:20	16° $\overline{\Delta}$ 50'44	0°49'16
retrograde	-1105 Mar 06 j 18:22	16° $\overline{\Delta}$ 51'25		max. Earth dist.	-1099 Jan 15 j 18:49	16° $\overline{\Delta}$ 48'26	10.69640 AU
	-1105 Apr 26 j 08:13	15° $\overline{\Delta}$ 1		morning rise	-1099 Feb 02 j 03:01	18° $\overline{\Delta}$ 54'56	
opposition	-1105 May 16 j 13:36	13° $\overline{\Delta}$ 34'10	1°57'28	retrograde	-1099 May 18 j 05:39	26° $\overline{\Delta}$ 31'53	
min. Earth dist.	-1105 May 16 j 20:48	13° $\overline{\Delta}$ 32'51	9.14346 AU	opposition	-1099 Jul 27 j 16:25	23° $\overline{\Delta}$ 07'43	-1°-17'-59
direct	-1105 Jul 26 j 17:15	10° $\overline{\Delta}$ 15'46		min. Earth dist.	-1099 Jul 27 j 22:03	23° $\overline{\Delta}$ 06'38	8.63153 AU
	-1105 Oct 15 j 13:23	15° $\overline{\Delta}$		direct	-1099 Oct 04 j 00:27	19° $\overline{\Delta}$ 47'43	
evening set	-1105 Nov 04 j 14:01	17° $\overline{\Delta}$ 12'06		evening set	-1098 Jan 11 j 17:14	27° $\overline{\Delta}$ 08'19	
conjunction	-1105 Nov 21 j 02:06	19° $\overline{\Delta}$ 07'10	1°25'52	conjunction	-1098 Jan 28 j 16:45	29° $\overline{\Delta}$ 13'46	-1°-16'-17
minimum elong	-1105 Nov 21 j 02:08	19° $\overline{\Delta}$ 07'11	1°25'51	minimum elong	-1098 Jan 28 j 16:42	29° $\overline{\Delta}$ 13'45	1°16'19
max. Earth dist.	-1105 Nov 20 j 17:47	19° $\overline{\Delta}$ 04'44	11.12901 AU	max. Earth dist.	-1098 Jan 28 j 09:31	29° $\overline{\Delta}$ 11'32	10.56568 AU
morning rise	-1105 Dec 07 j 14:09	21° $\overline{\Delta}$ 02'18			-1098 Feb 03 j 22:00	0° $\overline{\Delta}$	
retrograde	-1104 Mar 17 j 13:35	28° $\overline{\Delta}$ 00'20		morning rise	-1098 Feb 14 j 20:46	1° $\overline{\Delta}$ 20'39	
opposition	-1104 May 27 j 12:19	24° $\overline{\Delta}$ 42'25	1°30'49	retrograde	-1098 May 31 j 20:00	9° $\overline{\Delta}$ 08'30	
min. Earth dist.	-1104 May 27 j 19:28	24° $\overline{\Delta}$ 41'06	9.10980 AU	opposition	-1098 Aug 09 j 20:27	5° $\overline{\Delta}$ 42'47	-1°-50'00
direct	-1104 Aug 06 j 09:39	21° $\overline{\Delta}$ 24'24		min. Earth dist.	-1098 Aug 10 j 01:24	5° $\overline{\Delta}$ 41'50	8.49828 AU
evening set	-1104 Nov 14 j 17:00	28° $\overline{\Delta}$ 20'49		direct	-1098 Oct 16 j 14:00	2° $\overline{\Delta}$ 21'40	
	-1104 Nov 28 j 21:10	0° $\overline{\Delta}$ 1		evening set	-1097 Jan 24 j 15:56	9° $\overline{\Delta}$ 51'23	
conjunction	-1104 Dec 01 j 05:59	0° $\overline{\Delta}$ 16'43	1°02'23	conjunction	-1097 Feb 10 j 18:29	11° $\overline{\Delta}$ 59'31	-1°-40'-21
minimum elong	-1104 Dec 01 j 06:01	0° $\overline{\Delta}$ 16'44	1°02'22	minimum elong	-1097 Feb 10 j 18:26	11° $\overline{\Delta}$ 59'31	1°40'23
max. Earth dist.	-1104 Nov 30 j 21:28	0° $\overline{\Delta}$ 14'13	11.08352 AU	max. Earth dist.	-1097 Feb 10 j 11:46	11° $\overline{\Delta}$ 57'25	10.43070 AU
morning rise	-1104 Dec 17 j 19:44	2° $\overline{\Delta}$ 12'55		morning rise	-1097 Feb 28 j 02:02	14° $\overline{\Delta}$ 09'15	
retrograde	-1103 Mar 29 j 13:44	9° $\overline{\Delta}$ 15'55			-1097 Mar 07 j 00:37	15° $\overline{\Delta}$	
opposition	-1103 Jun 08 j 13:44	5° $\overline{\Delta}$ 57'07	1°00'26	retrograde	-1097 Jun 14 j 18:07	22° $\overline{\Delta}$ 08'14	
min. Earth dist.	-1103 Jun 08 j 21:19	5° $\overline{\Delta}$ 55'44	9.05198 AU	opposition	-1097 Aug 23 j 07:30	18° $\overline{\Delta}$ 41'04	-2°-17'-32
direct	-1103 Aug 18 j 00:21	2° $\overline{\Delta}$ 39'14		min. Earth dist.	-1097 Aug 23 j 11:45	18° $\overline{\Delta}$ 40'13	8.36409 AU
evening set	-1103 Nov 25 j 23:11	9° $\overline{\Delta}$ 37'21		direct	-1097 Oct 29 j 12:16	15° $\overline{\Delta}$ 18'39	
				evening set	-1096 Feb 07 j 02:21	22° $\overline{\Delta}$ 58'24	
conjunction	-1103 Dec 12 j 13:27	11° $\overline{\Delta}$ 34'28	0°36'14	conjunction	-1096 Feb 24 j 08:26	25° $\overline{\Delta}$ 09'24	-1°-59'-53
minimum elong	-1103 Dec 12 j 13:28	11° $\overline{\Delta}$ 34'28	0°36'13	minimum elong	-1096 Feb 24 j 08:23	25° $\overline{\Delta}$ 09'23	1°59'55
max. Earth dist.	-1103 Dec 12 j 03:52	11° $\overline{\Delta}$ 31'38	11.01481 AU	max. Earth dist.	-1096 Feb 24 j 03:46	25° $\overline{\Delta}$ 07'55	10.29834 AU
morning rise	-1103 Dec 29 j 05:34	13° $\overline{\Delta}$ 32'11		morning rise	-1096 Mar 12 j 19:36	27° $\overline{\Delta}$ 22'02	
retrograde	-1102 Apr 10 j 17:06	20° $\overline{\Delta}$ 41'40			-1096 Apr 03 j 18:31	0° $\overline{\Delta}$ 1	
opposition	-1102 Jun 20 j 18:42	17° $\overline{\Delta}$ 21'47	0°27'12	retrograde	-1096 Jun 28 j 00:15	5° $\overline{\Delta}$ 31'38	
min. Earth dist.	-1102 Jun 21 j 02:56	17° $\overline{\Delta}$ 20'15	8.97211 AU	opposition	-1096 Sep 05 j 01:42	2° $\overline{\Delta}$ 03'07	-2°-38'-36
direct	-1102 Aug 29 j 17:19	14° $\overline{\Delta}$ 03'44		min. Earth dist.	-1096 Sep 05 j 04:14	2° $\overline{\Delta}$ 02'36	8.23661 AU
evening set	-1102 Dec 07 j 10:08	21° $\overline{\Delta}$ 05'10			-1096 Oct 02 j 13:52	30° $\overline{\Delta}$ 1	
conjunction	-1102 Dec 24 j 02:13	23° $\overline{\Delta}$ 03'55	0°08'17	direct	-1096 Nov 10 j 20:14	28° $\overline{\Delta}$ 39'21	
minimum elong	-1102 Dec 24 j 02:13	23° $\overline{\Delta}$ 03'55	0°08'16		-1096 Dec 19 j 05:41	0° $\overline{\Delta}$ 1	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 26

Attention, astronomical year style is used: The year -1095 in astronomical counting style is the year 1096 BCE in historical counting style.

evening set	-1095 Feb 20 j 00:42	6° $\Upsilon$ 29'19			-1090 Oct 28 j 06:03	30° $\Re$	
				opposition	-1090 Nov 29 j 00:58	27° $\Upsilon$ 36'18	-1°-24'-29
conjunction	-1095 Mar 09 j 10:47	8° $\Upsilon$ 43'13	-2°-13'-23	min. Earth dist.	-1090 Nov 28 j 17:36	27° $\Upsilon$ 37'50	7.97830 AU
minimum elong	-1095 Mar 09 j 10:46	8° $\Upsilon$ 43'13	2°13'24	direct	-1089 Feb 03 j 21:04	24° $\Upsilon$ 06'12	
max. Earth dist.	-1095 Mar 09 j 09:04	8° $\Upsilon$ 42'40	10.17667 AU		-1089 Apr 30 j 21:37	0° $\Pi$	
morning rise	-1095 Mar 27 j 01:40	10° $\Upsilon$ 58'41		evening set	-1089 May 20 j 12:21	2° $\Pi$ 25'23	
retrograde	-1095 Jul 12 j 13:38	19° $\Upsilon$ 17'27					
opposition	-1095 Sep 19 j 02:16	15° $\Upsilon$ 47'48	-2°-51'-20	conjunction	-1089 Jun 07 j 17:32	4° $\Pi$ 47'04	0°-51'-46
min. Earth dist.	-1095 Sep 19 j 02:26	15° $\Upsilon$ 47'46	8.12375 AU	minimum elong	-1089 Jun 07 j 17:35	4° $\Pi$ 47'05	0°51'46
direct	-1095 Nov 24 j 12:19	12° $\Upsilon$ 22'38		max. Earth dist.	-1089 Jun 08 j 03:39	4° $\Pi$ 50'22	10.00845 AU
evening set	-1094 Mar 06 j 10:42	20° $\Upsilon$ 22'21		morning rise	-1089 Jun 25 j 21:36	7° $\Pi$ 08'19	
				retrograde	-1089 Oct 07 j 19:04	15° $\Pi$ 18'58	
conjunction	-1094 Mar 24 j 01:02	22° $\Upsilon$ 39'01	-2°-19'-30	opposition	-1089 Dec 13 j 05:47	11° $\Pi$ 50'47	0°-44'-16
minimum elong	-1094 Mar 24 j 01:02	22° $\Upsilon$ 39'01	2°19'32	min. Earth dist.	-1089 Dec 12 j 21:45	11° $\Pi$ 52'26	8.04608 AU
max. Earth dist.	-1094 Mar 24 j 02:22	22° $\Upsilon$ 39'27	10.07346 AU	direct	-1088 Feb 18 j 14:32	8° $\Pi$ 20'34	
morning rise	-1094 Apr 10 j 19:38	24° $\Upsilon$ 57'05		evening set	-1088 Jun 03 j 15:13	16° $\Pi$ 36'00	
	-1094 May 24 j 14:59	0° $\Upsilon$					
retrograde	-1094 Jul 27 j 09:13	3° $\Upsilon$ 22'36		conjunction	-1088 Jun 21 j 19:28	18° $\Pi$ 56'02	0°-18'-31
	-1094 Oct 01 j 17:42	30° $\Re$		minimum elong	-1088 Jun 21 j 19:29	18° $\Pi$ 56'02	0°18'32
opposition	-1094 Oct 03 j 07:58	29° $\Upsilon$ 52'08	-2°-54'-12	max. Earth dist.	-1088 Jun 22 j 05:51	18° $\Pi$ 59'23	10.09055 AU
min. Earth dist.	-1094 Oct 03 j 05:43	29° $\Upsilon$ 52'36	8.03272 AU	morning rise	-1088 Jul 09 j 21:12	21° $\Pi$ 15'12	
direct	-1094 Dec 08 j 11:48	26° $\Upsilon$ 25'36		retrograde	-1088 Oct 20 j 16:48	29° $\Pi$ 15'33	
	-1093 Feb 10 j 11:26	0° $\Upsilon$		opposition	-1088 Dec 26 j 05:01	25° $\Pi$ 48'49	0°-2'-14
evening set	-1093 Mar 21 j 06:39	4° $\Upsilon$ 33'53		min. Earth dist.	-1088 Dec 25 j 20:30	25° $\Pi$ 50'34	8.14022 AU
				asc. node	-1087 Jan 15 j 12:27	24° $\Pi$ 12'48	
conjunction	-1093 Apr 08 j 01:18	6° $\Upsilon$ 52'58	-2°-17'-22	direct	-1087 Mar 04 j 04:15	22° $\Pi$ 18'53	
minimum elong	-1093 Apr 08 j 01:20	6° $\Upsilon$ 52'58	2°17'23		-1087 Jun 14 j 14:35	0° $\Im$	
max. Earth dist.	-1093 Apr 08 j 05:30	6° $\Upsilon$ 54'21	9.99554 AU	evening set	-1087 Jun 18 j 10:28	0° $\Im$ 28'34	
morning rise	-1093 Apr 25 j 23:31	9° $\Upsilon$ 13'14					
retrograde	-1093 Aug 11 j 07:33	17° $\Upsilon$ 42'24		conjunction	-1087 Jul 06 j 12:05	2° $\Im$ 46'08	0°15'13
opposition	-1093 Oct 17 j 17:35	14° $\Upsilon$ 11'33	-2°-46'-22	minimum elong	-1087 Jul 06 j 12:04	2° $\Im$ 46'07	0°15'13
min. Earth dist.	-1093 Oct 17 j 13:10	14° $\Upsilon$ 12'28	7.96956 AU	behind sun begin	-1087 Jul 06 j 10:03	2° $\Im$ 45'29	
direct	-1093 Dec 22 j 19:14	10° $\Upsilon$ 43'46		behind sun end	-1087 Jul 06 j 14:06	2° $\Im$ 46'46	
evening set	-1092 Apr 04 j 10:08	18° $\Upsilon$ 58'39		max. Earth dist.	-1087 Jul 06 j 22:29	2° $\Im$ 49'26	10.19591 AU
				morning rise	-1087 Jul 24 j 09:58	5° $\Im$ 02'30	
conjunction	-1092 Apr 22 j 08:53	21° $\Upsilon$ 19'38	-2°-6'-40	retrograde	-1087 Nov 03 j 05:35	12° $\Im$ 51'57	
minimum elong	-1092 Apr 22 j 08:56	21° $\Upsilon$ 19'39	2°06'41	opposition	-1086 Jan 08 j 22:08	9° $\Im$ 26'51	0°38'51
max. Earth dist.	-1092 Apr 22 j 15:24	21° $\Upsilon$ 21'46	9.94818 AU	min. Earth dist.	-1086 Jan 08 j 13:53	9° $\Im$ 28'31	8.25467 AU
morning rise	-1092 May 10 j 10:17	23° $\Upsilon$ 41'29		direct	-1086 Mar 18 j 12:27	5° $\Im$ 57'31	
	-1092 Jul 06 j 10:39	0° $\Re$		evening set	-1086 Jul 02 j 19:57	13° $\Im$ 59'58	
retrograde	-1092 Aug 25 j 05:25	2° $\Re$ 10'48					
	-1092 Oct 14 j 18:55	30° $\Re$		conjunction	-1086 Jul 20 j 17:30	16° $\Im$ 14'30	0°47'17
opposition	-1092 Oct 31 j 05:00	28° $\Upsilon$ 39'59	-2°-27'-54	minimum elong	-1086 Jul 20 j 17:28	16° $\Im$ 14'29	0°47'18
min. Earth dist.	-1092 Oct 30 j 23:14	28° $\Upsilon$ 41'12	7.93851 AU	max. Earth dist.	-1086 Jul 21 j 03:15	16° $\Im$ 17'34	10.31800 AU
direct	-1091 Jan 05 j 08:56	25° $\Upsilon$ 11'09		morning rise	-1086 Aug 07 j 10:26	18° $\Im$ 27'36	
	-1091 Mar 22 j 01:49	0° $\Re$		retrograde	-1086 Nov 16 j 10:02	26° $\Im$ 06'16	
evening set	-1091 Apr 19 j 18:37	3° $\Re$ 30'12		opposition	-1085 Jan 22 j 08:32	22° $\Im$ 42'51	1°16'39
				min. Earth dist.	-1085 Jan 22 j 01:23	22° $\Im$ 44'17	8.38271 AU
conjunction	-1091 May 07 j 20:48	5° $\Re$ 52'21	-1°-47'-53	direct	-1085 Apr 01 j 12:42	19° $\Im$ 14'26	
minimum elong	-1091 May 07 j 20:52	5° $\Re$ 52'22	1°47'54	evening set	-1085 Jul 16 j 18:40	27° $\Im$ 08'42	
max. Earth dist.	-1091 May 08 j 04:58	5° $\Re$ 55'02	9.93449 AU				
morning rise	-1091 May 26 j 00:31	8° $\Re$ 14'58		conjunction	-1085 Aug 03 j 11:10	29° $\Im$ 19'54	1°16'05
	-1091 Jul 27 j 18:41	15° $\Re$		minimum elong	-1085 Aug 03 j 11:07	29° $\Im$ 19'53	1°16'05
retrograde	-1091 Sep 09 j 00:00	16° $\Re$ 40'52		max. Earth dist.	-1085 Aug 03 j 19:18	29° $\Im$ 22'26	10.44995 AU
	-1091 Oct 22 j 15:41	15° $\Re$			-1085 Aug 08 j 20:04	0° $\Omega$	
opposition	-1091 Nov 14 j 16:04	13° $\Re$ 10'34	-1°-59'-55	morning rise	-1085 Aug 20 j 22:39	1° $\Omega$ 29'34	
min. Earth dist.	-1091 Nov 14 j 09:26	13° $\Re$ 11'58	7.94155 AU	retrograde	-1085 Nov 29 j 05:30	8° $\Omega$ 58'00	
direct	-1090 Jan 20 j 02:30	9° $\Re$ 40'56		opposition	-1084 Feb 04 j 12:00	5° $\Omega$ 36'15	1°49'21
	-1090 Apr 10 j 14:22	15° $\Re$		min. Earth dist.	-1084 Feb 04 j 06:37	5° $\Omega$ 37'19	8.51738 AU
evening set	-1090 May 05 j 04:34	18° $\Re$ 01'26		direct	-1084 Apr 14 j 05:46	2° $\Omega$ 08'58	
				evening set	-1084 Jul 29 j 06:05	9° $\Omega$ 54'37	
conjunction	-1090 May 23 j 09:02	20° $\Re$ 23'51	-1°-22'-18				
minimum elong	-1090 May 23 j 09:05	20° $\Re$ 23'52	1°22'18	conjunction	-1084 Aug 15 j 17:05	12° $\Omega$ 02'27	1°40'21
max. Earth dist.	-1090 May 23 j 18:23	20° $\Re$ 26'55	9.95514 AU	minimum elong	-1084 Aug 15 j 17:02	12° $\Omega$ 02'26	1°40'22
morning rise	-1090 Jun 10 j 13:43	22° $\Re$ 46'16		max. Earth dist.	-1084 Aug 15 j 22:40	12° $\Omega$ 04'10	10.58485 AU
	-1090 Aug 20 j 01:12	0° $\Pi$		morning rise	-1084 Sep 01 j 23:05	14° $\Omega$ 08'44	
retrograde	-1090 Sep 23 j 12:53	1° $\Pi$ 05'42			-1084 Sep 09 j 03:35	15° $\Omega$	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 27

Attention, astronomical year style is used: The year -1084 in astronomical counting style is the year 1085 BCE in historical counting style.

retrograde	-1084 Dec 10 j 15:31	21°♏27'55		retrograde	-1077 Feb 18 j 06:28	0°♍52'32	
opposition	-1083 Feb 16 j 09:02	18°♏07'43	2°15'47		-1077 Mar 23 j 19:38	30°♌♊	
min. Earth dist.	-1083 Feb 16 j 05:06	18°♏08'29	8.65175 AU	opposition	-1077 Apr 29 j 13:43	27°♊36'15	2°28'01
	-1083 Apr 08 j 11:45	15°♌♏		min. Earth dist.	-1077 Apr 29 j 19:08	27°♊35'16	9.15506 AU
direct	-1083 Apr 27 j 16:10	14°♏41'44		direct	-1077 Jul 10 j 01:11	24°♊17'23	
	-1083 May 16 j 19:33	15°♏			-1077 Oct 08 j 09:53	0°♍	
evening set	-1083 Aug 11 j 06:12	22°♏18'41		evening set	-1077 Oct 19 j 18:54	1°♍16'23	
conjunction	-1083 Aug 28 j 11:44	24°♏23'17	1°59'17	conjunction	-1077 Nov 05 j 06:49	3°♍11'03	1°53'50
minimum elong	-1083 Aug 28 j 11:41	24°♏23'16	1°59'19	minimum elong	-1077 Nov 05 j 06:52	3°♍11'04	1°53'49
max. Earth dist.	-1083 Aug 28 j 15:03	24°♏24'17	10.71615 AU	max. Earth dist.	-1077 Nov 04 j 23:32	3°♍08'56	11.15744 AU
morning rise	-1083 Sep 14 j 12:28	26°♏26'25		morning rise	-1077 Nov 21 j 17:18	5°♍05'24	
	-1083 Oct 16 j 19:17	0°♎		retrograde	-1076 Feb 29 j 21:10	11°♍59'08	
retrograde	-1083 Dec 22 j 19:43	3°♎37'38		opposition	-1076 May 10 j 11:10	8°♍42'31	2°08'11
opposition	-1082 Mar 01 j 00:03	0°♎18'45	2°35'16	min. Earth dist.	-1076 May 10 j 18:19	8°♍41'13	9.15576 AU
min. Earth dist.	-1082 Feb 28 j 21:08	0°♎19'18	8.77952 AU	direct	-1076 Jul 20 j 17:00	5°♍24'15	
	-1082 Mar 05 j 02:10	30°♌♏		evening set	-1076 Oct 29 j 21:32	12°♍21'15	
direct	-1082 May 10 j 18:54	26°♏54'11					
	-1082 Jul 13 j 13:03	0°♎		conjunction	-1076 Nov 15 j 09:18	14°♍16'05	1°35'30
evening set	-1082 Aug 23 j 19:37	4°♎22'39		minimum elong	-1076 Nov 15 j 09:20	14°♍16'06	1°35'30
				max. Earth dist.	-1076 Nov 14 j 23:55	14°♍13'21	11.14508 AU
conjunction	-1082 Sep 09 j 20:16	6°♎24'22	2°12'29		-1076 Nov 21 j 15:39	15°♍	
minimum elong	-1082 Sep 09 j 20:14	6°♎24'22	2°12'29	morning rise	-1076 Dec 01 j 20:42	16°♍10'53	
max. Earth dist.	-1082 Sep 09 j 22:13	6°♎24'57	10.83806 AU	retrograde	-1075 Mar 12 j 13:30	23°♍07'19	
morning rise	-1082 Sep 26 j 16:15	8°♎24'43		opposition	-1075 May 22 j 09:46	19°♍50'03	1°43'31
retrograde	-1081 Jan 03 j 19:19	15°♎29'16		min. Earth dist.	-1075 May 22 j 18:30	19°♍48'27	9.12976 AU
opposition	-1081 Mar 13 j 09:44	12°♎11'29	2°47'31	direct	-1075 Aug 01 j 09:16	16°♍32'05	
min. Earth dist.	-1081 Mar 13 j 08:08	12°♎11'47	8.89522 AU	evening set	-1075 Nov 10 j 00:13	23°♍28'33	
direct	-1081 May 23 j 11:42	8°♎48'19					
evening set	-1081 Sep 04 j 23:22	16°♎08'52		conjunction	-1075 Nov 26 j 12:36	25°♍24'03	1°13'30
				minimum elong	-1075 Nov 26 j 12:38	25°♍24'04	1°13'29
conjunction	-1081 Sep 21 j 19:48	18°♎08'09	2°19'46	max. Earth dist.	-1075 Nov 26 j 01:56	25°♍20'55	11.10669 AU
minimum elong	-1081 Sep 21 j 19:46	18°♎08'09	2°19'46	morning rise	-1075 Dec 13 j 01:38	27°♍19'46	
max. Earth dist.	-1081 Sep 21 j 20:19	18°♎08'18	10.94553 AU		-1074 Jan 06 j 13:03	0°♌	
morning rise	-1081 Oct 08 j 11:52	20°♎06'12		retrograde	-1074 Mar 24 j 10:09	4°♌20'31	
retrograde	-1080 Jan 15 j 13:12	27°♎05'29		opposition	-1074 Jun 03 j 10:16	1°♌02'16	1°14'45
opposition	-1080 Mar 24 j 15:02	23°♎48'32	2°52'36	min. Earth dist.	-1074 Jun 03 j 19:35	1°♌00'34	9.07840 AU
min. Earth dist.	-1080 Mar 24 j 15:43	23°♎48'25	8.99414 AU		-1074 Jun 17 j 19:01	30°♌♍	
direct	-1080 Jun 03 j 22:42	20°♎26'40		direct	-1074 Aug 13 j 01:48	27°♍44'20	
evening set	-1080 Sep 15 j 18:56	27°♎40'10			-1074 Oct 05 j 17:13	0°♌	
				evening set	-1074 Nov 21 j 05:04	4°♌41'50	
conjunction	-1080 Oct 02 j 11:45	29°♎37'28	2°21'15				
minimum elong	-1080 Oct 02 j 11:46	29°♎37'28	2°21'14	conjunction	-1074 Dec 07 j 18:47	6°♌38'25	0°48'29
max. Earth dist.	-1080 Oct 02 j 09:40	29°♎36'51	11.03430 AU	minimum elong	-1074 Dec 07 j 18:49	6°♌38'25	0°48'28
	-1080 Oct 05 j 16:15	0°♊		max. Earth dist.	-1074 Dec 07 j 08:30	6°♌35'22	11.04381 AU
morning rise	-1080 Oct 19 j 01:00	1°♊33'45		morning rise	-1074 Dec 24 j 09:48	8°♌35'28	
retrograde	-1079 Jan 26 j 04:28	8°♊29'15		retrograde	-1073 Apr 05 j 12:12	15°♌42'05	
opposition	-1079 Apr 05 j 16:48	5°♊12'51	2°50'45	opposition	-1073 Jun 15 j 13:35	12°♌22'36	0°42'43
min. Earth dist.	-1079 Apr 05 j 19:45	5°♊12'19	9.07244 AU	min. Earth dist.	-1073 Jun 15 j 22:23	12°♌20'58	9.00364 AU
direct	-1079 Jun 16 j 03:58	1°♊52'10		direct	-1073 Aug 24 j 19:16	9°♌04'27	
evening set	-1079 Sep 27 j 07:37	8°♊59'34		evening set	-1073 Dec 02 j 13:53	16°♌04'34	
conjunction	-1079 Oct 13 j 21:47	10°♊55'26	2°17'11	conjunction	-1073 Dec 19 j 05:15	18°♌02'38	0°21'14
minimum elong	-1079 Oct 13 j 21:48	10°♊55'26	2°17'10	minimum elong	-1073 Dec 19 j 05:16	18°♌02'38	0°21'13
max. Earth dist.	-1079 Oct 13 j 17:08	10°♊54'04	11.10102 AU	max. Earth dist.	-1073 Dec 18 j 19:09	17°♌59'38	10.95868 AU
morning rise	-1079 Oct 30 j 09:16	12°♊50'31		morning rise	-1072 Jan 04 j 22:41	20°♌01'25	
retrograde	-1078 Feb 06 j 16:17	19°♊43'47		retrograde	-1072 Apr 16 j 22:10	27°♌15'23	
opposition	-1078 Apr 17 j 16:01	16°♊27'36	2°42'23	opposition	-1072 Jun 26 j 21:12	23°♌54'31	0°08'22
min. Earth dist.	-1078 Apr 17 j 20:25	16°♊26'47	9.12695 AU	min. Earth dist.	-1072 Jun 27 j 05:37	23°♌52'56	8.90825 AU
direct	-1078 Jun 28 j 04:07	13°♊07'54		direct	-1072 Sep 04 j 14:40	20°♌35'54	
evening set	-1078 Oct 08 j 14:53	20°♊10'25		desc. node	-1072 Sep 24 j 12:09	20°♌55'58	
				evening set	-1072 Dec 13 j 04:21	27°♌40'13	
conjunction	-1078 Oct 25 j 03:31	22°♊05'24	2°07'53				
minimum elong	-1078 Oct 25 j 03:33	22°♊05'25	2°07'53	conjunction	-1072 Dec 29 j 21:36	29°♌40'07	0°-7'-26
max. Earth dist.	-1078 Oct 24 j 21:30	22°♊03'39	11.14273 AU	minimum elong	-1072 Dec 29 j 21:36	29°♌40'07	0°07'27
morning rise	-1078 Nov 10 j 14:05	23°♊59'50		behind sun begin	-1072 Dec 29 j 15:12	29°♌38'13	
	-1077 Jan 16 j 09:55	0°♍		behind sun end	-1072 Dec 30 j 04:01	29°♌42'02	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 28

Attention, astronomical year style is used: The year -1072 in astronomical counting style is the year 1073 BCE in historical counting style.

max. Earth dist.	-1072 Dec 29 j 11:10	29° $\mathbb{X}$ 37'00	10.85453 AU	minimum elong	-1065 Mar 17 j 18:42	16° $\mathbb{X}$ 33'41	2°17'45
	-1071 Jan 01 j 15:38	0° $\mathbb{Z}$		max. Earth dist.	-1065 Mar 17 j 18:41	16° $\mathbb{X}$ 33'41	10.10432 AU
morning rise	-1071 Jan 15 j 17:56	1° $\mathbb{Z}$ 41'00		morning rise	-1065 Apr 04 j 11:45	18° $\mathbb{X}$ 50'48	
retrograde	-1071 Apr 29 j 13:29	9° $\mathbb{Z}$ 03'44		retrograde	-1065 Jul 21 j 02:53	27° $\mathbb{X}$ 14'10	
opposition	-1071 Jul 09 j 09:59	5° $\mathbb{Z}$ 41'19	0°-27'-7	opposition	-1065 Sep 27 j 06:54	23° $\mathbb{X}$ 43'40	-2°-54'-15
min. Earth dist.	-1071 Jul 09 j 18:19	5° $\mathbb{Z}$ 39'45	8.79587 AU	min. Earth dist.	-1065 Sep 27 j 05:25	23° $\mathbb{X}$ 43'58	8.05962 AU
direct	-1071 Sep 16 j 13:32	2° $\mathbb{Z}$ 22'00		direct	-1065 Dec 02 j 12:05	20° $\mathbb{X}$ 17'26	
evening set	-1071 Dec 25 j 02:25	9° $\mathbb{Z}$ 32'11		evening set	-1064 Mar 13 j 22:15	28° $\mathbb{X}$ 22'34	
					-1064 Mar 26 j 10:33	0° $\mathbb{Y}$	
conjunction	-1070 Jan 10 j 21:58	11° $\mathbb{Z}$ 34'14	0°-36'-17	conjunction	-1064 Mar 31 j 14:49	0° $\mathbb{Y}$ 40'42	-2°-19'-23
minimum elong	-1070 Jan 10 j 21:57	11° $\mathbb{Z}$ 34'14	0°36'18	minimum elong	-1064 Mar 31 j 14:49	0° $\mathbb{Y}$ 40'42	2°19'25
max. Earth dist.	-1070 Jan 10 j 12:02	11° $\mathbb{Z}$ 31'13	10.73529 AU	max. Earth dist.	-1064 Mar 31 j 17:43	0° $\mathbb{Y}$ 41'39	10.01808 AU
morning rise	-1070 Jan 27 j 21:26	13° $\mathbb{Z}$ 37'29		morning rise	-1064 Apr 18 j 11:35	3° $\mathbb{Y}$ 00'11	
retrograde	-1070 May 12 j 13:05	21° $\mathbb{Z}$ 10'11		retrograde	-1064 Aug 03 j 23:41	11° $\mathbb{Y}$ 28'39	
opposition	-1070 Jul 22 j 04:27	17° $\mathbb{Z}$ 46'09	-1°-2'-25	opposition	-1064 Oct 10 j 15:19	7° $\mathbb{Y}$ 57'46	-2°-51'-15
min. Earth dist.	-1070 Jul 22 j 12:11	17° $\mathbb{Z}$ 44'40	8.67086 AU	min. Earth dist.	-1064 Oct 10 j 11:51	7° $\mathbb{Y}$ 58'29	7.98716 AU
direct	-1070 Sep 28 j 19:24	14° $\mathbb{Z}$ 25'55		direct	-1064 Dec 15 j 17:45	4° $\mathbb{Y}$ 30'25	
evening set	-1069 Jan 06 j 09:31	21° $\mathbb{Z}$ 43'29		evening set	-1063 Mar 28 j 22:56	12° $\mathbb{Y}$ 43'03	
conjunction	-1069 Jan 23 j 07:50	23° $\mathbb{Z}$ 47'59	-1°-4'-14	conjunction	-1063 Apr 15 j 19:53	15° $\mathbb{Y}$ 03'20	-2°-12'-30
minimum elong	-1069 Jan 23 j 07:47	23° $\mathbb{Z}$ 47'58	1°04'15	minimum elong	-1063 Apr 15 j 19:55	15° $\mathbb{Y}$ 03'21	2°12'31
max. Earth dist.	-1069 Jan 22 j 23:39	23° $\mathbb{Z}$ 45'27	10.60558 AU	max. Earth dist.	-1063 Apr 16 j 01:59	15° $\mathbb{Y}$ 05'21	9.96038 AU
morning rise	-1069 Feb 09 j 10:26	25° $\mathbb{Z}$ 53'50		morning rise	-1063 May 03 j 20:04	17° $\mathbb{Y}$ 24'41	
	-1069 Mar 18 j 10:16	0° $\mathbb{Z}$		retrograde	-1063 Aug 18 j 21:34	25° $\mathbb{Y}$ 54'51	
retrograde	-1069 May 25 j 23:14	3° $\mathbb{Z}$ 37'21		opposition	-1063 Oct 25 j 02:31	22° $\mathbb{Y}$ 24'00	-2°-37'-26
opposition	-1069 Aug 04 j 05:33	0° $\mathbb{Z}$ 11'42	-1°-35'-54	min. Earth dist.	-1063 Oct 24 j 20:49	22° $\mathbb{Y}$ 25'11	7.94523 AU
min. Earth dist.	-1069 Aug 04 j 11:34	0° $\mathbb{Z}$ 10'32	8.53825 AU	direct	-1063 Dec 30 j 05:34	18° $\mathbb{Y}$ 55'44	
	-1069 Aug 06 j 17:58	30° $\mathbb{R}$ $\mathbb{Z}$		evening set	-1062 Apr 13 j 06:01	27° $\mathbb{Y}$ 13'37	
direct	-1069 Oct 11 j 06:41	26° $\mathbb{Z}$ 50'26					
	-1069 Dec 11 j 16:16	0° $\mathbb{Z}$		conjunction	-1062 May 01 j 06:50	29° $\mathbb{Y}$ 35'25	-1°-57'-12
evening set	-1068 Jan 19 j 03:03	4° $\mathbb{Z}$ 16'38		minimum elong	-1062 May 01 j 06:54	29° $\mathbb{Y}$ 35'26	1°57'13
conjunction	-1068 Feb 05 j 04:21	6° $\mathbb{Z}$ 23'46	-1°-29'-52	max. Earth dist.	-1062 May 01 j 15:53	29° $\mathbb{Y}$ 38'24	9.93529 AU
minimum elong	-1068 Feb 05 j 04:18	6° $\mathbb{Z}$ 23'45	1°29'54		-1062 May 04 j 09:22	0° $\mathbb{Z}$	
max. Earth dist.	-1068 Feb 04 j 22:24	6° $\mathbb{Z}$ 21'54	10.47093 AU	morning rise	-1062 May 19 j 09:38	1° $\mathbb{Z}$ 57'51	
morning rise	-1068 Feb 22 j 10:13	8° $\mathbb{Z}$ 32'25		retrograde	-1062 Sep 02 j 18:14	10° $\mathbb{Z}$ 26'07	
	-1068 Apr 26 j 18:54	15° $\mathbb{Z}$		opposition	-1062 Nov 08 j 14:21	6° $\mathbb{Z}$ 55'45	-2°-13'-27
retrograde	-1068 Jun 07 j 17:59	16° $\mathbb{Z}$ 27'10		min. Earth dist.	-1062 Nov 08 j 06:39	6° $\mathbb{Z}$ 57'22	7.93689 AU
	-1068 Jul 20 j 08:27	15° $\mathbb{R}$ $\mathbb{Z}$		direct	-1061 Jan 13 j 21:24	3° $\mathbb{Z}$ 26'47	
opposition	-1068 Aug 16 j 13:43	12° $\mathbb{Z}$ 59'57	-2°-5'-47	evening set	-1061 Apr 28 j 16:09	11° $\mathbb{Z}$ 47'13	
min. Earth dist.	-1068 Aug 16 j 17:31	12° $\mathbb{Z}$ 59'12	8.40399 AU				
direct	-1068 Oct 23 j 01:14	9° $\mathbb{Z}$ 37'31		conjunction	-1061 May 16 j 19:52	14° $\mathbb{Z}$ 09'40	-1°-34'-26
	-1067 Jan 12 j 19:37	15° $\mathbb{Z}$		minimum elong	-1061 May 16 j 19:56	14° $\mathbb{Z}$ 09'41	1°34'26
evening set	-1067 Jan 31 j 08:15	17° $\mathbb{Z}$ 13'21		max. Earth dist.	-1061 May 17 j 07:02	14° $\mathbb{Z}$ 13'20	9.94470 AU
					-1061 May 23 j 04:52	15° $\mathbb{Z}$	
conjunction	-1067 Feb 17 j 12:50	19° $\mathbb{Z}$ 23'17	-1°-51'-41	morning rise	-1061 Jun 04 j 00:10	16° $\mathbb{Z}$ 32'18	
minimum elong	-1067 Feb 17 j 12:47	19° $\mathbb{Z}$ 23'17	1°51'43	retrograde	-1061 Sep 17 j 11:18	24° $\mathbb{Z}$ 55'17	
max. Earth dist.	-1067 Feb 17 j 08:41	19° $\mathbb{Z}$ 21'58	10.33782 AU	opposition	-1061 Nov 23 j 00:54	21° $\mathbb{Z}$ 25'47	-1°-40'-59
morning rise	-1067 Mar 06 j 22:16	21° $\mathbb{Z}$ 34'48		min. Earth dist.	-1061 Nov 22 j 16:01	21° $\mathbb{Z}$ 27'38	7.96286 AU
retrograde	-1067 Jun 21 j 21:33	29° $\mathbb{Z}$ 40'29		direct	-1060 Jan 28 j 14:42	17° $\mathbb{Z}$ 56'21	
opposition	-1067 Aug 30 j 04:56	26° $\mathbb{Z}$ 11'53	-2°-30'-3	evening set	-1060 May 13 j 01:48	26° $\mathbb{Z}$ 16'29	
min. Earth dist.	-1067 Aug 30 j 06:47	26° $\mathbb{Z}$ 11'31	8.27479 AU				
direct	-1067 Nov 05 j 04:12	22° $\mathbb{Z}$ 48'11		conjunction	-1060 May 31 j 06:59	28° $\mathbb{Z}$ 38'37	-1°-5'-48
	-1066 Feb 09 j 12:08	0° $\mathbb{X}$		minimum elong	-1060 May 31 j 07:03	28° $\mathbb{Z}$ 38'38	1°05'48
evening set	-1066 Feb 14 j 01:31	0° $\mathbb{X}$ 34'10		max. Earth dist.	-1060 May 31 j 19:13	28° $\mathbb{Z}$ 42'37	9.98781 AU
					-1060 Jun 10 j 16:09	0° $\mathbb{I}$	
conjunction	-1066 Mar 03 j 09:44	2° $\mathbb{X}$ 46'57	-2°-8'-7	morning rise	-1060 Jun 18 j 11:22	1° $\mathbb{I}$ 00'27	
minimum elong	-1066 Mar 03 j 09:42	2° $\mathbb{X}$ 46'57	2°08'09	retrograde	-1060 Sep 30 j 22:40	9° $\mathbb{I}$ 15'22	
max. Earth dist.	-1066 Mar 03 j 07:17	2° $\mathbb{X}$ 46'10	10.21324 AU	opposition	-1060 Dec 06 j 08:07	5° $\mathbb{I}$ 47'04	-1°-2'-31
morning rise	-1066 Mar 20 j 22:57	5° $\mathbb{X}$ 01'21		min. Earth dist.	-1060 Dec 05 j 23:00	5° $\mathbb{I}$ 48'57	8.02100 AU
retrograde	-1066 Jul 06 j 09:05	13° $\mathbb{X}$ 16'51		direct	-1059 Feb 11 j 09:02	2° $\mathbb{I}$ 17'25	
opposition	-1066 Sep 13 j 02:59	9° $\mathbb{X}$ 47'07	-2°-46'-47	evening set	-1059 May 28 j 07:50	10° $\mathbb{I}$ 34'40	
min. Earth dist.	-1066 Sep 13 j 03:17	9° $\mathbb{X}$ 47'04	8.15766 AU				
direct	-1066 Nov 18 j 15:35	6° $\mathbb{X}$ 22'08		conjunction	-1059 Jun 15 j 12:43	12° $\mathbb{I}$ 55'28	0°-33'-28
evening set	-1065 Feb 28 j 06:30	14° $\mathbb{X}$ 18'07		minimum elong	-1059 Jun 15 j 12:45	12° $\mathbb{I}$ 55'28	0°33'28
				max. Earth dist.	-1059 Jun 16 j 00:40	12° $\mathbb{I}$ 59'20	10.06092 AU
conjunction	-1065 Mar 17 j 18:43	16° $\mathbb{X}$ 33'42	-2°-17'-44	morning rise	-1059 Jul 03 j 15:31	15° $\mathbb{I}$ 15'34	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 29

Attention, astronomical year style is used: The year -1059 in astronomical counting style is the year 1060 BCE in historical counting style.

retrograde	-1059 Oct 15 j 00:36	23°II20'29		conjunction	-1053 Sep 04 j 21:27	1°mp26'21	2°07'24
opposition	-1059 Dec 20 j 10:18	19°II53'36	0°-20'-56	minimum elong	-1053 Sep 04 j 21:24	1°mp26'20	2°07'25
min. Earth dist.	-1059 Dec 20 j 01:56	19°II55'20	8.10656 AU	max. Earth dist.	-1053 Sep 04 j 23:03	1°mp26'49	10.77724 AU
direct	-1058 Feb 26 j 01:27	16°II24'03		morning rise	-1053 Sep 21 j 19:29	3°mp28'00	
evening set	-1058 Jun 12 j 07:04	24°II36'15		retrograde	-1053 Dec 30 j 00:34	10°mp35'49	
asc. node	-1058 Jun 27 j 02:11	26°II29'17		opposition	-1052 Mar 07 j 09:52	7°mp17'28	2°43'05
				min. Earth dist.	-1052 Mar 07 j 09:32	7°mp17'32	8.83523 AU
conjunction	-1058 Jun 30 j 09:54	26°II54'52	0°00'19	direct	-1052 May 17 j 07:31	3°mp53'27	
minimum elong	-1058 Jun 30 j 09:53	26°II54'52	0°00'19	evening set	-1052 Aug 30 j 03:06	11°mp18'02	
behind sun begin	-1058 Jun 30 j 02:35	26°II52'33					
behind sun end	-1058 Jun 30 j 17:12	26°II57'12		conjunction	-1052 Sep 16 j 01:17	13°mp18'29	2°17'19
max. Earth dist.	-1058 Jun 30 j 20:16	26°II58'11	10.15806 AU	minimum elong	-1052 Sep 16 j 01:15	13°mp18'29	2°17'19
morning rise	-1058 Jul 18 j 09:36	29°II12'27		max. Earth dist.	-1052 Sep 16 j 00:21	13°mp18'12	10.88721 AU
	-1058 Jul 24 j 18:26	0°☾		morning rise	-1052 Oct 02 j 19:12	15°mp17'40	
retrograde	-1058 Oct 28 j 16:55	7°☾06'35		retrograde	-1051 Jan 09 j 19:42	22°mp19'39	
opposition	-1057 Jan 03 j 06:29	3°☾41'17	0°20'52	opposition	-1051 Mar 19 j 17:25	19°mp02'03	2°51'19
min. Earth dist.	-1057 Jan 02 j 23:06	3°☾42'47	8.21287 AU	min. Earth dist.	-1051 Mar 19 j 18:19	19°mp01'53	8.93792 AU
direct	-1057 Mar 12 j 13:04	0°☾12'09		direct	-1051 May 29 j 23:57	15°mp39'12	
evening set	-1057 Jun 26 j 21:11	8°☾17'46		evening set	-1051 Sep 11 j 02:21	22°mp56'22	
conjunction	-1057 Jul 14 j 20:31	10°☾33'36	0°33'21	conjunction	-1051 Sep 27 j 20:44	24°mp54'39	2°21'20
minimum elong	-1057 Jul 14 j 20:30	10°☾33'35	0°33'22	minimum elong	-1051 Sep 27 j 20:44	24°mp54'39	2°21'20
max. Earth dist.	-1057 Jul 15 j 04:57	10°☾36'16	10.27218 AU	max. Earth dist.	-1051 Sep 27 j 18:29	24°mp53'59	10.98094 AU
morning rise	-1057 Aug 01 j 15:54	12°☾48'08		morning rise	-1051 Oct 14 j 11:18	26°mp51'50	
retrograde	-1057 Nov 11 j 00:27	20°☾31'30			-1051 Nov 12 j 08:02	0°☾	
opposition	-1056 Jan 16 j 20:03	17°☾07'50	1°00'23	retrograde	-1050 Jan 21 j 13:19	3°☾49'27	
min. Earth dist.	-1056 Jan 16 j 13:28	17°☾09'09	8.33314 AU	opposition	-1050 Mar 31 j 20:58	0°☾32'22	2°52'29
direct	-1056 Mar 25 j 17:54	13°☾39'26		min. Earth dist.	-1050 Mar 31 j 22:44	0°☾32'02	9.02238 AU
evening set	-1056 Jul 10 j 01:15	21°☾37'27			-1050 Apr 08 j 03:30	30°Rmp	
				direct	-1050 Jun 11 j 08:15	27°mp10'40	
conjunction	-1056 Jul 27 j 20:02	23°☾50'08	1°03'48		-1050 Aug 11 j 13:00	0°☾	
minimum elong	-1056 Jul 27 j 20:00	23°☾50'07	1°03'48	evening set	-1050 Sep 22 j 18:04	4°☾21'16	
max. Earth dist.	-1056 Jul 28 j 02:55	23°☾52'17	10.39701 AU				
morning rise	-1056 Aug 14 j 10:11	26°☾01'20		conjunction	-1050 Oct 09 j 09:34	6°☾17'55	2°19'39
	-1056 Sep 18 j 15:09	0°♈		minimum elong	-1050 Oct 09 j 09:35	6°☾17'55	2°19'38
retrograde	-1056 Nov 23 j 00:21	3°♈34'23		max. Earth dist.	-1050 Oct 09 j 06:27	6°☾17'00	11.05501 AU
opposition	-1055 Jan 29 j 02:51	0°♈12'17	1°35'34	morning rise	-1050 Oct 25 j 21:44	8°☾13'40	
min. Earth dist.	-1055 Jan 28 j 21:06	0°♈13'26	8.46141 AU	retrograde	-1049 Feb 02 j 03:01	15°☾08'22	
	-1055 Jan 31 j 17:00	30°R☾		opposition	-1049 Apr 12 j 21:21	11°☾51'34	2°46'55
direct	-1055 Apr 08 j 15:01	26°☾44'50		min. Earth dist.	-1049 Apr 13 j 00:54	11°☾50'54	9.08569 AU
	-1055 Jun 11 j 23:13	0°♈		direct	-1049 Jun 23 j 08:59	8°☾30'53	
evening set	-1055 Jul 23 j 18:16	4°♈34'35		evening set	-1049 Oct 04 j 03:52	15°☾36'05	
conjunction	-1055 Aug 10 j 07:52	6°♈43'57	1°30'13	conjunction	-1049 Oct 20 j 17:15	17°☾31'37	2°12'35
minimum elong	-1055 Aug 10 j 07:49	6°♈43'56	1°30'14	minimum elong	-1049 Oct 20 j 17:17	17°☾31'37	2°12'34
max. Earth dist.	-1055 Aug 10 j 13:31	6°♈45'42	10.52673 AU	max. Earth dist.	-1049 Oct 20 j 12:04	17°☾30'06	11.10694 AU
morning rise	-1055 Aug 27 j 16:20	8°♈51'46		morning rise	-1049 Nov 06 j 04:09	19°☾26'29	
	-1055 Oct 28 j 20:29	15°♈		retrograde	-1048 Feb 13 j 16:09	26°☾19'49	
retrograde	-1055 Dec 05 j 15:35	16°♈15'18		opposition	-1048 Apr 23 j 19:54	23°☾03'05	2°35'04
	-1054 Jan 13 j 05:09	15°R♈		min. Earth dist.	-1048 Apr 24 j 01:21	23°☾02'05	9.12571 AU
opposition	-1054 Feb 11 j 03:18	12°♈54'38	2°04'56	direct	-1048 Jul 04 j 07:39	19°☾43'17	
min. Earth dist.	-1054 Feb 10 j 22:50	12°♈55'31	8.59176 AU	evening set	-1048 Oct 14 j 09:20	26°☾44'19	
direct	-1054 Apr 22 j 04:44	9°♈28'17					
	-1054 Jul 18 j 07:44	15°♈		conjunction	-1048 Oct 30 j 21:27	28°☾39'16	2°00'31
evening set	-1054 Aug 05 j 23:50	17°♈09'26		minimum elong	-1048 Oct 30 j 21:29	28°☾39'16	2°00'31
				max. Earth dist.	-1048 Oct 30 j 14:17	28°☾37'10	11.13500 AU
conjunction	-1054 Aug 23 j 08:00	19°♈15'32	1°51'37		-1048 Nov 11 j 10:39	0°♈	
minimum elong	-1054 Aug 23 j 07:57	19°♈15'31	1°51'38	morning rise	-1048 Nov 16 j 08:05	0°♈33'47	
max. Earth dist.	-1054 Aug 23 j 12:12	19°♈16'49	10.65538 AU	retrograde	-1047 Feb 24 j 04:53	7°♈27'22	
morning rise	-1054 Sep 09 j 10:56	21°♈20'07		opposition	-1047 May 05 j 17:35	4°♈10'25	2°17'30
retrograde	-1054 Dec 17 j 23:47	28°♈35'12		min. Earth dist.	-1047 May 05 j 23:55	4°♈09'15	9.14112 AU
opposition	-1053 Feb 23 j 21:31	25°♈15'48	2°27'35	direct	-1047 Jul 16 j 02:09	0°♈51'23	
min. Earth dist.	-1053 Feb 23 j 19:11	25°♈16'15	8.71823 AU	evening set	-1047 Oct 25 j 12:19	7°♈49'36	
direct	-1053 May 05 j 10:11	21°♈50'36					
evening set	-1053 Aug 18 j 18:34	29°♈23'15		conjunction	-1047 Nov 11 j 00:09	9°♈44'27	1°43'58
	-1053 Aug 23 j 22:18	0°mp		minimum elong	-1047 Nov 11 j 00:11	9°♈44'28	1°43'58
				max. Earth dist.	-1047 Nov 10 j 16:38	9°♈42'15	11.13825 AU

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 30

Attention, astronomical year style is used: The year -1047 in astronomical counting style is the year 1048 BCE in historical counting style.

morning rise	-1047 Nov 27 j 11:12	11° $\mathbb{M}$ 39'09		conjunction	-1040 Jan 18 j 06:53	18° $\mathbb{Z}$ 42'39	0°-52'-15
	-1047 Dec 28 j 23:06	15° $\mathbb{M}$		minimum elong	-1040 Jan 18 j 06:51	18° $\mathbb{Z}$ 42'38	0°52'16
retrograde	-1046 Mar 07 j 21:16	18° $\mathbb{M}$ 34'35		max. Earth dist.	-1040 Jan 17 j 23:19	18° $\mathbb{Z}$ 40'20	10.68462 AU
opposition	-1046 May 17 j 15:28	15° $\mathbb{M}$ 17'10	1°54'48	morning rise	-1040 Feb 04 j 07:50	20° $\mathbb{Z}$ 47'04	
min. Earth dist.	-1046 May 17 j 21:57	15° $\mathbb{M}$ 15'59	9.13139 AU	retrograde	-1040 May 19 j 12:50	28° $\mathbb{Z}$ 24'50	
	-1046 May 21 j 13:17	15° $\mathbb{R}$ $\mathbb{M}$		opposition	-1040 Jul 28 j 21:59	25° $\mathbb{Z}$ 00'32	-1°-21'-34
direct	-1046 Jul 27 j 19:25	11° $\mathbb{M}$ 58'42		min. Earth dist.	-1040 Jul 29 j 03:24	24° $\mathbb{Z}$ 59'30	8.62073 AU
	-1046 Sep 28 j 20:59	15° $\mathbb{M}$		direct	-1040 Oct 05 j 04:13	21° $\mathbb{Z}$ 40'26	
evening set	-1046 Nov 05 j 14:38	18° $\mathbb{M}$ 55'32		evening set	-1039 Jan 12 j 22:24	29° $\mathbb{Z}$ 01'41	
					-1039 Jan 20 j 20:48	0° $\approx$	
conjunction	-1046 Nov 22 j 02:55	20° $\mathbb{M}$ 50'48	1°23'27	conjunction	-1039 Jan 29 j 22:00	1° $\approx$ 07'18	-1°-19'-1
minimum elong	-1046 Nov 22 j 02:57	20° $\mathbb{M}$ 50'49	1°23'26	minimum elong	-1039 Jan 29 j 21:58	1° $\approx$ 07'17	1°19'02
max. Earth dist.	-1046 Nov 21 j 19:06	20° $\mathbb{M}$ 48'31	11.11642 AU	max. Earth dist.	-1039 Jan 29 j 15:02	1° $\approx$ 05'08	10.55606 AU
morning rise	-1046 Dec 08 j 15:06	22° $\mathbb{M}$ 46'09		morning rise	-1039 Feb 16 j 02:20	3° $\approx$ 14'22	
retrograde	-1045 Mar 19 j 17:00	29° $\mathbb{M}$ 44'59		retrograde	-1039 Jun 02 j 01:57	11° $\approx$ 02'55	
opposition	-1045 May 29 j 14:50	26° $\mathbb{M}$ 26'55	1°27'41	opposition	-1039 Aug 11 j 02:33	7° $\approx$ 37'05	-1°-53'-8
min. Earth dist.	-1045 May 29 j 21:51	26° $\mathbb{M}$ 25'37	9.09672 AU	min. Earth dist.	-1039 Aug 11 j 07:24	7° $\approx$ 36'09	8.49013 AU
direct	-1045 Aug 08 j 10:04	23° $\mathbb{M}$ 08'48		direct	-1039 Oct 17 j 19:20	4° $\approx$ 15'51	
	-1045 Nov 15 j 22:14	0° $\mathbb{Z}$		evening set	-1038 Jan 25 j 21:48	11° $\approx$ 46'07	
evening set	-1045 Nov 16 j 18:21	0° $\mathbb{Z}$ 05'47					
conjunction	-1045 Dec 03 j 07:24	2° $\mathbb{Z}$ 01'53	0°59'39	conjunction	-1038 Feb 12 j 00:35	13° $\approx$ 54'24	-1°-42'-37
minimum elong	-1045 Dec 03 j 07:26	2° $\mathbb{Z}$ 01'53	0°59'37	minimum elong	-1038 Feb 12 j 00:32	13° $\approx$ 54'23	1°42'38
max. Earth dist.	-1045 Dec 02 j 22:21	1° $\mathbb{Z}$ 59'13	11.07014 AU	max. Earth dist.	-1038 Feb 11 j 18:59	13° $\approx$ 52'38	10.42403 AU
morning rise	-1045 Dec 19 j 21:28	3° $\mathbb{Z}$ 58'20			-1038 Feb 20 j 17:27	15° $\approx$	
retrograde	-1044 Mar 30 j 15:31	11° $\mathbb{Z}$ 02'10		morning rise	-1038 Mar 01 j 08:20	16° $\approx$ 04'15	
opposition	-1044 Jun 09 j 16:50	7° $\mathbb{Z}$ 43'12	0°56'56	retrograde	-1038 Jun 15 j 23:42	24° $\approx$ 03'42	
min. Earth dist.	-1044 Jun 10 j 00:51	7° $\mathbb{Z}$ 41'43	9.03832 AU	opposition	-1038 Aug 24 j 13:48	20° $\approx$ 36'26	-2°-19'-59
direct	-1044 Aug 19 j 01:52	4° $\mathbb{Z}$ 25'10		min. Earth dist.	-1038 Aug 24 j 17:34	20° $\approx$ 35'41	8.35902 AU
evening set	-1044 Nov 27 j 01:10	11° $\mathbb{Z}$ 23'56		direct	-1038 Oct 30 j 19:14	17° $\approx$ 13'57	
				evening set	-1037 Feb 08 j 08:49	24° $\approx$ 54'04	
conjunction	-1044 Dec 13 j 15:35	13° $\mathbb{Z}$ 21'15	0°33'15	conjunction	-1037 Feb 25 j 15:12	27° $\approx$ 05'11	-2°-1'-32
minimum elong	-1044 Dec 13 j 15:36	13° $\mathbb{Z}$ 21'16	0°33'14	minimum elong	-1037 Feb 25 j 15:10	27° $\approx$ 05'10	2°01'34
max. Earth dist.	-1044 Dec 13 j 06:00	13° $\mathbb{Z}$ 18'25	11.00108 AU	max. Earth dist.	-1037 Feb 25 j 11:55	27° $\approx$ 04'08	10.29458 AU
morning rise	-1044 Dec 30 j 08:00	15° $\mathbb{Z}$ 19'12		morning rise	-1037 Mar 15 j 02:27	29° $\approx$ 17'53	
retrograde	-1043 Apr 11 j 21:27	22° $\mathbb{Z}$ 29'36			-1037 Mar 20 j 18:33	0° $\mathbb{H}$	
opposition	-1043 Jun 21 j 22:28	19° $\mathbb{Z}$ 09'31	0°23'27	retrograde	-1037 Jun 30 j 06:57	7° $\mathbb{H}$ 27'45	
min. Earth dist.	-1043 Jun 22 j 06:30	19° $\mathbb{Z}$ 08'01	8.95834 AU	opposition	-1037 Sep 07 j 08:02	3° $\mathbb{H}$ 59'10	-2°-40'-12
direct	-1043 Aug 30 j 21:20	15° $\mathbb{Z}$ 51'20		min. Earth dist.	-1037 Sep 07 j 09:41	3° $\mathbb{H}$ 58'51	8.23427 AU
evening set	-1043 Dec 08 j 12:43	22° $\mathbb{Z}$ 53'24		direct	-1037 Nov 13 j 02:18	0° $\mathbb{H}$ 35'23	
				evening set	-1036 Feb 22 j 07:36	8° $\mathbb{H}$ 25'35	
conjunction	-1043 Dec 25 j 05:06	24° $\mathbb{Z}$ 52'22	0°05'10	conjunction	-1036 Mar 10 j 17:55	10° $\mathbb{H}$ 39'33	-2°-14'-17
minimum elong	-1043 Dec 25 j 05:05	24° $\mathbb{Z}$ 52'22	0°05'09	minimum elong	-1036 Mar 10 j 17:53	10° $\mathbb{H}$ 39'33	2°14'19
behind sun begin	-1043 Dec 24 j 22:18	24° $\mathbb{Z}$ 50'22		max. Earth dist.	-1036 Mar 10 j 17:06	10° $\mathbb{H}$ 39'17	10.17547 AU
behind sun end	-1043 Dec 25 j 11:53	24° $\mathbb{Z}$ 54'23		morning rise	-1036 Mar 28 j 08:52	12° $\mathbb{H}$ 55'04	
max. Earth dist.	-1043 Dec 24 j 20:25	24° $\mathbb{Z}$ 49'47	10.91155 AU	retrograde	-1036 Jul 13 j 21:46	21° $\mathbb{H}$ 13'52	
morning rise	-1042 Jan 11 j 00:05	26° $\mathbb{Z}$ 52'11		opposition	-1036 Sep 20 j 08:37	17° $\mathbb{H}$ 44'13	-2°-51'-57
	-1042 Feb 08 j 09:57	0° $\mathbb{Z}$		min. Earth dist.	-1036 Sep 20 j 07:58	17° $\mathbb{H}$ 44'20	8.12383 AU
desc. node	-1042 Mar 02 j 01:52	1° $\mathbb{Z}$ 57'35		direct	-1036 Nov 25 j 17:27	14° $\mathbb{H}$ 19'03	
retrograde	-1042 Apr 24 j 09:47	4° $\mathbb{Z}$ 10'33		evening set	-1035 Mar 07 j 17:52	22° $\mathbb{H}$ 18'54	
opposition	-1042 Jul 04 j 08:36	0° $\mathbb{Z}$ 49'10	0°-11'-40				
min. Earth dist.	-1042 Jul 04 j 15:41	0° $\mathbb{Z}$ 47'50	8.85952 AU	conjunction	-1035 Mar 25 j 08:23	24° $\mathbb{H}$ 35'34	-2°-19'-36
	-1042 Jul 15 j 09:50	30° $\mathbb{R}$ $\mathbb{Z}$		minimum elong	-1035 Mar 25 j 08:23	24° $\mathbb{H}$ 35'34	2°19'37
direct	-1042 Sep 11 j 18:40	27° $\mathbb{Z}$ 30'36		max. Earth dist.	-1035 Mar 25 j 09:54	24° $\mathbb{H}$ 36'04	10.07467 AU
	-1042 Nov 06 j 02:37	0° $\mathbb{Z}$		morning rise	-1035 Apr 12 j 03:10	26° $\mathbb{H}$ 53'40	
evening set	-1042 Dec 20 j 07:11	4° $\mathbb{Z}$ 37'36			-1035 May 07 j 15:30	0° $\mathbb{Y}$	
conjunction	-1041 Jan 06 j 01:44	6° $\mathbb{Z}$ 38'31	0°-23'-47	retrograde	-1035 Jul 28 j 17:00	5° $\mathbb{Y}$ 18'58	
minimum elong	-1041 Jan 06 j 01:43	6° $\mathbb{Z}$ 38'30	0°23'48	opposition	-1035 Oct 04 j 14:15	1° $\mathbb{Y}$ 48'35	-2°-53'-46
max. Earth dist.	-1041 Jan 05 j 18:00	6° $\mathbb{Z}$ 36'11	10.80469 AU	min. Earth dist.	-1035 Oct 04 j 11:45	1° $\mathbb{Y}$ 49'05	8.03508 AU
morning rise	-1041 Jan 22 j 23:32	8° $\mathbb{Z}$ 40'29			-1035 Oct 27 j 19:04	30° $\mathbb{R}$ $\mathbb{H}$	
retrograde	-1041 May 07 j 06:43	16° $\mathbb{Z}$ 08'04		direct	-1035 Dec 09 j 17:56	28° $\mathbb{H}$ 22'03	
opposition	-1041 Jul 17 j 00:05	12° $\mathbb{Z}$ 45'16	0°-47'-10		-1034 Jan 20 j 21:49	0° $\mathbb{Y}$	
min. Earth dist.	-1041 Jul 17 j 06:04	12° $\mathbb{Z}$ 44'08	8.74549 AU	evening set	-1034 Mar 22 j 13:58	6° $\mathbb{Y}$ 30'20	
direct	-1041 Sep 23 j 21:02	9° $\mathbb{Z}$ 26'03					
evening set	-1040 Jan 01 j 10:00	16° $\mathbb{Z}$ 39'31		conjunction	-1034 Apr 09 j 08:46	8° $\mathbb{Y}$ 49'24	-2°-16'-37



## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 31

Attention, astronomical year style is used: The year -1034 in astronomical counting style is the year 1035 BCE in historical counting style.

minimum elong	-1034 Apr 09 j 08:48	8°Υ49'25	2°16'38	asc. node	-1029 Dec 13 j 07:27	28°Π50'41	
max. Earth dist.	-1034 Apr 09 j 12:26	8°Υ50'36	9.99900 AU	opposition	-1029 Dec 28 j 08:17	27°Π38'22	0°01'40
morning rise	-1034 Apr 27 j 07:14	11°Υ09'40		min. Earth dist.	-1029 Dec 27 j 23:52	27°Π40'05	8.14971 AU
retrograde	-1034 Aug 12 j 14:02	19°Υ38'22		direct	-1028 Mar 05 j 08:23	24°Π08'30	
opposition	-1034 Oct 18 j 23:36	16°Υ07'38	-2°-44'-53		-1028 May 31 j 15:42	0°ϙ	
min. Earth dist.	-1034 Oct 18 j 19:38	16°Υ08'27	7.97402 AU	evening set	-1028 Jun 19 j 14:41	2°ϙ17'34	
direct	-1034 Dec 24 j 01:47	12°Υ39'53					
evening set	-1033 Apr 06 j 17:23	20°Υ54'36		conjunction	-1028 Jul 07 j 16:06	4°ϙ34'55	0°18'17
				minimum elong	-1028 Jul 07 j 16:05	4°ϙ34'54	0°18'18
conjunction	-1033 Apr 24 j 16:14	23°Υ15'32	-2°-5'-7	max. Earth dist.	-1028 Jul 08 j 02:33	4°ϙ38'14	10.20516 AU
minimum elong	-1033 Apr 24 j 16:17	23°Υ15'33	2°05'08	morning rise	-1028 Jul 25 j 13:37	6°ϙ51'02	
max. Earth dist.	-1033 Apr 24 j 21:57	23°Υ17'25	9.95365 AU	retrograde	-1028 Nov 04 j 08:33	14°ϙ39'43	
morning rise	-1033 May 12 j 17:51	25°Υ37'20		opposition	-1027 Jan 10 j 00:51	11°ϙ14'43	0°42'32
	-1033 Jun 18 j 10:35	0°ϙ		min. Earth dist.	-1027 Jan 09 j 17:23	11°ϙ16'14	8.26357 AU
retrograde	-1033 Aug 27 j 10:47	4°ϙ05'58		direct	-1027 Mar 19 j 15:00	7°ϙ45'26	
opposition	-1033 Nov 02 j 10:39	0°ϙ35'20	-2°-25'-29	evening set	-1027 Jul 03 j 23:32	15°ϙ47'18	
min. Earth dist.	-1033 Nov 02 j 05:28	0°ϙ36'25	7.94483 AU				
	-1033 Nov 09 j 12:58	30°ϙΥ		conjunction	-1027 Jul 21 j 20:42	18°ϙ01'37	0°50'06
direct	-1032 Jan 07 j 15:19	27°Υ06'32		minimum elong	-1027 Jul 21 j 20:40	18°ϙ01'37	0°50'08
	-1032 Mar 04 j 19:55	0°ϙ		max. Earth dist.	-1027 Jul 22 j 05:39	18°ϙ04'26	10.32632 AU
evening set	-1032 Apr 21 j 01:27	5°ϙ25'16		morning rise	-1027 Aug 08 j 13:18	20°ϙ14'30	
				retrograde	-1027 Nov 17 j 12:29	27°ϙ52'29	
conjunction	-1032 May 09 j 03:45	7°ϙ47'20	-1°-45'-39	opposition	-1026 Jan 23 j 10:46	24°ϙ29'09	1°19'55
minimum elong	-1032 May 09 j 03:49	7°ϙ47'21	1°45'40	min. Earth dist.	-1026 Jan 23 j 04:36	24°ϙ30'23	8.39048 AU
max. Earth dist.	-1032 May 09 j 11:23	7°ϙ49'51	9.94171 AU	direct	-1026 Apr 02 j 15:22	21°ϙ00'44	
morning rise	-1032 May 27 j 07:36	10°ϙ09'51		evening set	-1026 Jul 17 j 21:32	28°ϙ54'30	
	-1032 Jul 07 j 11:30	15°ϙ			-1026 Jul 26 j 18:40	0°ϙ	
retrograde	-1032 Sep 10 j 04:40	18°ϙ34'55					
opposition	-1032 Nov 15 j 21:10	15°ϙ04'48	-1°-56'-45	conjunction	-1026 Aug 04 j 13:35	1°ϙ05'30	1°18'32
min. Earth dist.	-1032 Nov 15 j 14:46	15°ϙ06'08	7.94946 AU	minimum elong	-1026 Aug 04 j 13:31	1°ϙ05'29	1°18'33
	-1032 Nov 16 j 20:11	15°ϙϙ		max. Earth dist.	-1026 Aug 04 j 20:23	1°ϙ07'37	10.45688 AU
direct	-1031 Jan 21 j 08:17	11°ϙ35'13		morning rise	-1026 Aug 22 j 00:47	3°ϙ14'59	
	-1031 Mar 25 j 05:50	15°ϙ		retrograde	-1026 Nov 30 j 05:20	10°ϙ42'53	
evening set	-1031 May 06 j 10:53	19°ϙ55'15		opposition	-1025 Feb 05 j 13:54	7°ϙ21'10	1°52'06
				min. Earth dist.	-1025 Feb 05 j 08:55	7°ϙ22'09	8.52359 AU
conjunction	-1031 May 24 j 15:28	22°ϙ17'33	-1°-19'-33	direct	-1025 Apr 16 j 09:48	3°ϙ53'53	
minimum elong	-1031 May 24 j 15:32	22°ϙ17'34	1°19'34	evening set	-1025 Jul 31 j 08:06	11°ϙ39'06	
max. Earth dist.	-1031 May 25 j 00:40	22°ϙ20'34	9.96373 AU				
morning rise	-1031 Jun 11 j 20:10	24°ϙ39'50		conjunction	-1025 Aug 17 j 18:44	13°ϙ46'44	1°42'20
	-1031 Jul 28 j 09:22	0°Π		minimum elong	-1025 Aug 17 j 18:41	13°ϙ46'43	1°42'21
retrograde	-1031 Sep 24 j 17:28	2°Π58'21		max. Earth dist.	-1025 Aug 17 j 23:28	13°ϙ48'12	10.59006 AU
	-1031 Nov 24 j 00:19	30°ϙϙ			-1025 Aug 27 j 17:53	15°ϙ	
opposition	-1031 Nov 30 j 05:25	29°ϙ29'07	-1°-20'-48	morning rise	-1025 Sep 04 j 00:28	15°ϙ52'51	
min. Earth dist.	-1031 Nov 29 j 21:53	29°ϙ30'41	7.98731 AU	retrograde	-1025 Dec 12 j 16:19	23°ϙ11'44	
direct	-1030 Feb 05 j 03:01	25°ϙ59'06		opposition	-1024 Feb 18 j 10:32	19°ϙ51'30	2°17'55
	-1030 Apr 15 j 08:49	0°Π		min. Earth dist.	-1024 Feb 18 j 06:22	19°ϙ52'19	8.65604 AU
evening set	-1030 May 21 j 18:09	4°Π17'44		direct	-1024 Apr 28 j 19:17	16°ϙ25'31	
				evening set	-1024 Aug 12 j 07:39	24°ϙ02'07	
conjunction	-1030 Jun 08 j 23:24	6°Π39'15	0°-48'-42				
minimum elong	-1030 Jun 08 j 23:26	6°Π39'16	0°48'42	conjunction	-1024 Aug 29 j 13:00	26°ϙ06'35	2°00'45
max. Earth dist.	-1030 Jun 09 j 09:42	6°Π42'37	10.01783 AU	minimum elong	-1024 Aug 29 j 12:57	26°ϙ06'35	2°00'46
morning rise	-1030 Jun 27 j 03:15	9°Π00'19		max. Earth dist.	-1024 Aug 29 j 16:23	26°ϙ07'37	10.71935 AU
retrograde	-1030 Oct 08 j 22:33	17°Π10'01		morning rise	-1024 Sep 15 j 13:22	28°ϙ09'35	
opposition	-1030 Dec 14 j 09:34	13°Π41'59	0°-40'-21		-1024 Oct 01 j 12:15	0°ϙ	
min. Earth dist.	-1030 Dec 14 j 01:13	13°Π43'43	8.05559 AU	retrograde	-1024 Dec 23 j 21:29	5°ϙ20'36	
direct	-1029 Feb 19 j 19:57	10°Π11'53		opposition	-1023 Mar 02 j 01:19	2°ϙ01'41	2°36'43
evening set	-1029 Jun 05 j 20:16	18°Π26'42		min. Earth dist.	-1023 Mar 01 j 22:27	2°ϙ02'14	8.78164 AU
					-1023 Mar 30 j 12:12	30°ϙϙ	
conjunction	-1029 Jun 24 j 00:27	20°Π46'32	0°-15'-22	direct	-1023 May 11 j 19:32	28°ϙ37'06	
minimum elong	-1029 Jun 24 j 00:27	20°Π46'32	0°15'22		-1023 Jun 22 j 12:15	0°ϙ	
behind sun begin	-1029 Jun 23 j 22:47	20°Π46'00		evening set	-1023 Aug 24 j 20:43	6°ϙ05'21	
behind sun end	-1029 Jun 24 j 02:08	20°Π47'04					
max. Earth dist.	-1029 Jun 24 j 11:16	20°Π50'00	10.10015 AU	conjunction	-1023 Sep 10 j 21:10	8°ϙ07'00	2°13'22
morning rise	-1029 Jul 12 j 01:50	23°Π05'28		minimum elong	-1023 Sep 10 j 21:08	8°ϙ06'59	2°13'22
	-1029 Sep 18 j 11:35	0°ϙ		max. Earth dist.	-1023 Sep 10 j 23:14	8°ϙ07'37	10.83904 AU
retrograde	-1029 Oct 22 j 19:37	1°ϙ04'57		morning rise	-1023 Sep 27 j 16:50	10°ϙ07'16	
	-1029 Nov 26 j 12:37	30°ϙΠ		retrograde	-1022 Jan 04 j 19:58	17°ϙ11'46	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 32

Attention, astronomical year style is used: The year -1022 in astronomical counting style is the year 1023 BCE in historical counting style.

opposition	-1022 Mar 14 j 11:07	13° $\mathring{M}$ 53'57	2°48'16	direct	-1016 Aug 02 j 11:46	18° $\mathring{M}$ 17'57	
min. Earth dist.	-1022 Mar 14 j 10:16	13° $\mathring{M}$ 54'06	8.89513 AU	evening set	-1016 Nov 11 j 02:08	25° $\mathring{M}$ 14'49	
direct	-1022 May 24 j 13:08	10° $\mathring{M}$ 30'45					
evening set	-1022 Sep 06 j 00:12	17° $\mathring{M}$ 51'13		conjunction	-1016 Nov 27 j 14:45	27° $\mathring{M}$ 10'28	1°10'49
				minimum elong	-1016 Nov 27 j 14:47	27° $\mathring{M}$ 10'29	1°10'48
conjunction	-1022 Sep 22 j 20:21	19° $\mathring{M}$ 50'26	2°20'05	max. Earth dist.	-1016 Nov 27 j 04:52	27° $\mathring{M}$ 07'34	11.09784 AU
minimum elong	-1022 Sep 22 j 20:20	19° $\mathring{M}$ 50'26	2°20'04	morning rise	-1016 Dec 14 j 03:54	29° $\mathring{M}$ 06'21	
max. Earth dist.	-1022 Sep 22 j 20:08	19° $\mathring{M}$ 50'22	10.94432 AU		-1016 Dec 22 j 00:53	0° $\mathring{A}$	
morning rise	-1022 Oct 09 j 12:18	21° $\mathring{M}$ 48'28		retrograde	-1015 Mar 25 j 14:05	6° $\mathring{A}$ 07'52	
retrograde	-1021 Jan 16 j 14:17	28° $\mathring{M}$ 47'53		opposition	-1015 Jun 04 j 14:01	2° $\mathring{A}$ 49'32	1°11'17
opposition	-1021 Mar 26 j 16:33	25° $\mathring{M}$ 30'53	2°52'38	min. Earth dist.	-1015 Jun 04 j 22:29	2° $\mathring{A}$ 47'59	9.06904 AU
min. Earth dist.	-1021 Mar 26 j 17:59	25° $\mathring{M}$ 30'37	8.99195 AU		-1015 Jul 20 j 19:11	30° $\mathring{R}$ $\mathring{M}$	
direct	-1021 Jun 06 j 00:04	22° $\mathring{M}$ 08'59		direct	-1015 Aug 14 j 04:58	29° $\mathring{M}$ 31'38	
evening set	-1021 Sep 17 j 19:38	29° $\mathring{M}$ 22'29			-1015 Sep 07 j 05:06	0° $\mathring{A}$	
	-1021 Sep 23 j 04:52	0° $\mathring{A}$		evening set	-1015 Nov 22 j 07:36	6° $\mathring{A}$ 29'36	
conjunction	-1021 Oct 04 j 12:17	1° $\mathring{A}$ 19'48	2°20'59	conjunction	-1015 Dec 08 j 21:31	8° $\mathring{A}$ 26'23	0°45'30
minimum elong	-1021 Oct 04 j 12:17	1° $\mathring{A}$ 19'48	2°20'58	minimum elong	-1015 Dec 08 j 21:32	8° $\mathring{A}$ 26'23	0°45'29
max. Earth dist.	-1021 Oct 04 j 09:19	1° $\mathring{A}$ 18'55	11.03111 AU	max. Earth dist.	-1015 Dec 08 j 11:45	8° $\mathring{A}$ 23'30	11.03405 AU
morning rise	-1021 Oct 21 j 01:34	3° $\mathring{A}$ 16'07		morning rise	-1015 Dec 25 j 12:41	10° $\mathring{A}$ 23'37	
retrograde	-1020 Jan 28 j 04:21	10° $\mathring{A}$ 11'53		retrograde	-1014 Apr 06 j 18:28	17° $\mathring{A}$ 31'04	
opposition	-1020 Apr 06 j 18:21	6° $\mathring{A}$ 55'24	2°50'05	opposition	-1014 Jun 16 j 18:03	14° $\mathring{A}$ 11'32	0°38'56
min. Earth dist.	-1020 Apr 06 j 21:10	6° $\mathring{A}$ 54'53	9.06833 AU	min. Earth dist.	-1014 Jun 17 j 02:30	14° $\mathring{A}$ 09'58	8.99353 AU
direct	-1020 Jun 17 j 05:24	3° $\mathring{A}$ 34'41		direct	-1014 Aug 25 j 22:23	10° $\mathring{A}$ 53'25	
evening set	-1020 Sep 28 j 08:18	10° $\mathring{A}$ 42'13		evening set	-1014 Dec 03 j 17:09	17° $\mathring{A}$ 54'04	
conjunction	-1020 Oct 14 j 22:31	12° $\mathring{A}$ 38'09	2°16'20	conjunction	-1014 Dec 20 j 08:38	19° $\mathring{A}$ 52'20	0°18'04
minimum elong	-1020 Oct 14 j 22:32	12° $\mathring{A}$ 38'09	2°16'20	minimum elong	-1014 Dec 20 j 08:38	19° $\mathring{A}$ 52'20	0°18'03
max. Earth dist.	-1020 Oct 14 j 18:13	12° $\mathring{A}$ 36'53	11.09609 AU	max. Earth dist.	-1014 Dec 19 j 22:07	19° $\mathring{A}$ 49'13	10.94834 AU
morning rise	-1020 Oct 31 j 09:58	14° $\mathring{A}$ 33'18		morning rise	-1013 Jan 06 j 02:23	21° $\mathring{A}$ 51'21	
retrograde	-1019 Feb 07 j 19:13	21° $\mathring{A}$ 26'58		retrograde	-1013 Apr 19 j 02:54	29° $\mathring{A}$ 06'11	
opposition	-1019 Apr 18 j 17:54	18° $\mathring{A}$ 10'42	2°41'03	opposition	-1013 Jun 29 j 02:19	25° $\mathring{A}$ 45'16	0°04'25
min. Earth dist.	-1019 Apr 18 j 21:42	18° $\mathring{A}$ 10'00	9.12124 AU	min. Earth dist.	-1013 Jun 29 j 11:05	25° $\mathring{A}$ 43'37	8.89770 AU
direct	-1019 Jun 29 j 06:45	14° $\mathring{A}$ 51'01		desc. node	-1013 Aug 15 j 07:27	22° $\mathring{A}$ 51'35	
evening set	-1019 Oct 09 j 15:45	21° $\mathring{A}$ 53'41		direct	-1013 Sep 06 j 17:15	22° $\mathring{A}$ 26'38	
conjunction	-1019 Oct 26 j 04:28	23° $\mathring{A}$ 48'47	2°06'31	evening set	-1013 Dec 15 j 08:24	29° $\mathring{A}$ 31'38	
minimum elong	-1019 Oct 26 j 04:30	23° $\mathring{A}$ 48'47	2°06'30		-1013 Dec 19 j 08:16	0° $\mathring{B}$	
max. Earth dist.	-1019 Oct 25 j 23:07	23° $\mathring{A}$ 47'13	11.13650 AU	conjunction	-1012 Jan 01 j 01:48	1° $\mathring{B}$ 31'43	0°-10'-39
morning rise	-1019 Nov 11 j 15:00	25° $\mathring{A}$ 43'19		minimum elong	-1012 Jan 01 j 01:48	1° $\mathring{B}$ 31'43	0°10'41
	-1019 Dec 23 j 11:26	0° $\mathring{M}$		behind sun begin	-1013 Dec 31 j 20:21	1° $\mathring{B}$ 30'06	
retrograde	-1018 Feb 19 j 08:51	2° $\mathring{M}$ 36'27		behind sun end	-1012 Jan 01 j 07:15	1° $\mathring{B}$ 33'21	
	-1018 Apr 21 j 12:53	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	-1013 Dec 31 j 15:16	1° $\mathring{B}$ 28'34	10.84390 AU
opposition	-1018 Apr 30 j 16:08	29° $\mathring{A}$ 20'06	2°26'03	morning rise	-1012 Jan 17 j 22:26	3° $\mathring{B}$ 32'48	
min. Earth dist.	-1018 Apr 30 j 21:34	29° $\mathring{A}$ 19'06	9.14834 AU	retrograde	-1012 Apr 30 j 19:04	10° $\mathring{B}$ 56'28	
direct	-1018 Jul 11 j 01:39	26° $\mathring{A}$ 01'14		opposition	-1012 Jul 10 j 15:39	7° $\mathring{B}$ 33'59	0°-31'-6
	-1018 Sep 22 j 19:18	0° $\mathring{M}$		min. Earth dist.	-1012 Jul 11 j 00:07	7° $\mathring{B}$ 32'24	8.78524 AU
evening set	-1018 Oct 20 j 20:06	3° $\mathring{M}$ 00'27		direct	-1012 Sep 17 j 19:10	4° $\mathring{B}$ 14'38	
conjunction	-1018 Nov 06 j 08:00	4° $\mathring{M}$ 55'14	1°51'57	evening set	-1012 Dec 26 j 07:14	11° $\mathring{B}$ 25'31	
minimum elong	-1018 Nov 06 j 08:03	4° $\mathring{M}$ 55'14	1°51'57	conjunction	-1011 Jan 12 j 03:04	13° $\mathring{B}$ 27'47	0°-39'-27
max. Earth dist.	-1018 Nov 06 j 00:22	4° $\mathring{M}$ 53'00	11.15039 AU	minimum elong	-1011 Jan 12 j 03:02	13° $\mathring{B}$ 27'47	0°39'29
morning rise	-1018 Nov 22 j 18:42	6° $\mathring{M}$ 49'43		max. Earth dist.	-1011 Jan 11 j 18:03	13° $\mathring{B}$ 25'02	10.72473 AU
retrograde	-1017 Mar 02 j 23:13	13° $\mathring{M}$ 43'58		morning rise	-1011 Jan 29 j 02:40	15° $\mathring{B}$ 31'15	
opposition	-1017 May 12 j 14:00	10° $\mathring{M}$ 27'16	2°05'38	retrograde	-1011 May 13 j 20:44	23° $\mathring{B}$ 04'52	
min. Earth dist.	-1017 May 12 j 21:40	10° $\mathring{M}$ 25'52	9.14829 AU	opposition	-1011 Jul 23 j 10:45	19° $\mathring{B}$ 40'44	-1°-6'-14
direct	-1017 Jul 22 j 19:08	7° $\mathring{M}$ 08'58		min. Earth dist.	-1011 Jul 23 j 17:46	19° $\mathring{B}$ 39'24	8.66058 AU
evening set	-1017 Oct 31 j 23:01	14° $\mathring{M}$ 06'17		direct	-1011 Sep 30 j 00:45	16° $\mathring{B}$ 20'29	
	-1017 Nov 08 j 17:10	15° $\mathring{M}$		evening set	-1010 Jan 07 j 15:11	23° $\mathring{B}$ 38'44	
conjunction	-1017 Nov 17 j 10:52	16° $\mathring{M}$ 01'15	1°33'11	conjunction	-1010 Jan 24 j 13:45	25° $\mathring{B}$ 43'25	-1°-7'-11
minimum elong	-1017 Nov 17 j 10:54	16° $\mathring{M}$ 01'16	1°33'11	minimum elong	-1010 Jan 24 j 13:43	25° $\mathring{B}$ 43'24	1°07'13
max. Earth dist.	-1017 Nov 17 j 01:12	15° $\mathring{M}$ 58'26	11.13721 AU	max. Earth dist.	-1010 Jan 24 j 06:31	25° $\mathring{B}$ 41'11	10.59557 AU
morning rise	-1017 Dec 03 j 22:33	17° $\mathring{M}$ 56'13		morning rise	-1010 Feb 10 j 16:29	27° $\mathring{B}$ 49'29	
retrograde	-1016 Mar 13 j 16:22	24° $\mathring{M}$ 53'16			-1010 Mar 01 j 06:49	0° $\approx$	
opposition	-1016 May 23 j 12:58	21° $\mathring{M}$ 35'55	1°40'28	retrograde	-1010 May 27 j 06:57	5° $\approx$ 33'52	
min. Earth dist.	-1016 May 23 j 21:37	21° $\mathring{M}$ 34'20	9.12136 AU	opposition	-1010 Aug 05 j 12:23	2° $\approx$ 08'06	-1°-39'-21

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 33

Attention, astronomical year style is used: The year -1010 in astronomical counting style is the year 1011 BCE in historical counting style.

min. Earth dist.	-1010 Aug 05 j 17:29	2° $\approx$ 07'07	8.52878 AU	retrograde	-1004 Aug 20 j 04:59	27° $\Upsilon$ 54'46	
	-1010 Sep 04 j 08:19	30° $\approx$ 3		opposition	-1004 Oct 26 j 09:46	24° $\Upsilon$ 23'53	-2°-35'-22
direct	-1010 Oct 12 j 12:08	28° $\approx$ 46'47		min. Earth dist.	-1004 Oct 26 j 03:26	24° $\Upsilon$ 25'12	7.94752 AU
	-1010 Nov 18 j 17:53	0° $\approx$		direct	-1004 Dec 31 j 12:30	20° $\Upsilon$ 55'31	
evening set	-1009 Jan 20 j 09:45	6° $\approx$ 13'41		evening set	-1003 Apr 14 j 14:36	29° $\Upsilon$ 13'09	
					-1003 Apr 20 j 14:47	0° $\approx$	
conjunction	-1009 Feb 06 j 11:11	8° $\approx$ 21'00	-1°-32'-26				
minimum elong	-1009 Feb 06 j 11:08	8° $\approx$ 20'59	1°32'28	conjunction	-1003 May 02 j 15:39	1° $\approx$ 34'56	-1°-55'-11
max. Earth dist.	-1009 Feb 06 j 05:17	8° $\approx$ 19'09	10.46196 AU	minimum elong	-1003 May 02 j 15:42	1° $\approx$ 34'58	1°55'12
morning rise	-1009 Feb 23 j 17:16	10° $\approx$ 29'49		max. Earth dist.	-1003 May 03 j 01:01	1° $\approx$ 38'02	9.93864 AU
	-1009 Apr 05 j 02:58	15° $\approx$		morning rise	-1003 May 20 j 18:32	3° $\approx$ 57'20	
retrograde	-1009 Jun 10 j 02:19	18° $\approx$ 25'18		retrograde	-1003 Sep 04 j 02:03	12° $\approx$ 24'52	
opposition	-1009 Aug 18 j 20:57	14° $\approx$ 57'59	-2°-8'-39	opposition	-1003 Nov 09 j 21:09	8° $\approx$ 54'30	-2°-10'-30
	-1009 Aug 18 j 10:44	15° $\approx$		min. Earth dist.	-1003 Nov 09 j 13:26	8° $\approx$ 56'07	7.94114 AU
min. Earth dist.	-1009 Aug 19 j 00:25	14° $\approx$ 57'18	8.39578 AU	direct	-1002 Jan 15 j 03:48	5° $\approx$ 25'26	
direct	-1009 Oct 25 j 07:33	11° $\approx$ 35'28		evening set	-1002 Apr 30 j 00:26	13° $\approx$ 45'31	
	-1009 Dec 27 j 17:31	15° $\approx$			-1002 May 09 j 13:32	15° $\approx$	
evening set	-1008 Feb 02 j 15:44	19° $\approx$ 11'57					
				conjunction	-1002 May 18 j 04:14	16° $\approx$ 07'53	-1°-31'-47
conjunction	-1008 Feb 19 j 20:24	21° $\approx$ 22'02	-1°-53'-42	minimum elong	-1002 May 18 j 04:18	16° $\approx$ 07'54	1°31'47
minimum elong	-1008 Feb 19 j 20:21	21° $\approx$ 22'01	1°53'44	max. Earth dist.	-1002 May 18 j 15:05	16° $\approx$ 11'27	9.94989 AU
max. Earth dist.	-1008 Feb 19 j 15:50	21° $\approx$ 20'35	10.33038 AU	morning rise	-1002 Jun 05 j 08:35	18° $\approx$ 30'26	
morning rise	-1008 Mar 08 j 06:07	23° $\approx$ 33'43		retrograde	-1002 Sep 18 j 18:49	26° $\approx$ 52'32	
	-1008 May 09 j 13:40	0° $\approx$		opposition	-1002 Nov 24 j 07:16	23° $\approx$ 23'05	-1°-37'-22
retrograde	-1008 Jun 23 j 06:31	1° $\approx$ 39'56		min. Earth dist.	-1002 Nov 23 j 22:53	23° $\approx$ 24'50	7.96877 AU
	-1008 Aug 07 j 14:21	30° $\approx$		direct	-1001 Jan 29 j 22:05	19° $\approx$ 53'35	
opposition	-1008 Aug 31 j 12:37	28° $\approx$ 11'15	-2°-32'-9	evening set	-1001 May 15 j 09:32	28° $\approx$ 13'18	
min. Earth dist.	-1008 Aug 31 j 14:41	28° $\approx$ 10'51	8.26832 AU		-1001 May 29 j 02:43	0° $\approx$	
direct	-1008 Nov 06 j 10:36	24° $\approx$ 47'27					
	-1007 Jan 25 j 04:12	0° $\approx$		conjunction	-1001 Jun 02 j 14:37	0° $\approx$ 35'16	-1°-2'-44
evening set	-1007 Feb 15 j 09:30	2° $\approx$ 33'57		minimum elong	-1001 Jun 02 j 14:40	0° $\approx$ 35'17	1°02'44
				max. Earth dist.	-1001 Jun 03 j 02:07	0° $\approx$ 39'02	9.99454 AU
conjunction	-1007 Mar 04 j 17:55	4° $\approx$ 46'51	-2°-9'-26	morning rise	-1001 Jun 20 j 19:00	2° $\approx$ 56'59	
minimum elong	-1007 Mar 04 j 17:53	4° $\approx$ 46'51	2°09'27	retrograde	-1001 Oct 03 j 04:13	11° $\approx$ 10'59	
max. Earth dist.	-1007 Mar 04 j 15:33	4° $\approx$ 46'06	10.20775 AU	opposition	-1001 Dec 08 j 13:58	7° $\approx$ 42'47	0°-58'-30
morning rise	-1007 Mar 22 j 07:24	7° $\approx$ 01'24		min. Earth dist.	-1001 Dec 08 j 05:27	7° $\approx$ 44'32	8.02841 AU
retrograde	-1007 Jul 07 j 17:46	15° $\approx$ 17'12		direct	-1000 Feb 13 j 16:49	4° $\approx$ 13'07	
opposition	-1007 Sep 14 j 10:51	11° $\approx$ 47'24	-2°-47'-56	evening set	-1000 May 29 j 14:54	12° $\approx$ 29'52	
min. Earth dist.	-1007 Sep 14 j 11:20	11° $\approx$ 47'18	8.15328 AU				
direct	-1007 Nov 19 j 23:15	8° $\approx$ 22'17		conjunction	-1000 Jun 16 j 19:36	14° $\approx$ 50'28	0°-30'-10
evening set	-1006 Mar 01 j 15:01	16° $\approx$ 18'39		minimum elong	-1000 Jun 16 j 19:38	14° $\approx$ 50'29	0°30'11
				max. Earth dist.	-1000 Jun 17 j 06:47	14° $\approx$ 54'05	10.06911 AU
conjunction	-1006 Mar 19 j 03:34	18° $\approx$ 34'20	-2°-18'-13	morning rise	-1000 Jul 04 j 22:21	17° $\approx$ 10'24	
minimum elong	-1006 Mar 19 j 03:33	18° $\approx$ 34'19	2°18'15	retrograde	-1000 Oct 16 j 04:28	25° $\approx$ 14'25	
max. Earth dist.	-1006 Mar 19 j 04:10	18° $\approx$ 34'31	10.10103 AU	opposition	-1000 Dec 21 j 15:31	21° $\approx$ 47'40	0°-16'-48
morning rise	-1006 Apr 05 j 20:48	20° $\approx$ 51'31		min. Earth dist.	-1000 Dec 21 j 07:19	21° $\approx$ 49'21	8.11548 AU
retrograde	-1006 Jul 22 j 10:15	29° $\approx$ 14'55		direct	-999 Feb 27 j 08:26	18° $\approx$ 18'09	
opposition	-1006 Sep 28 j 14:38	25° $\approx$ 44'21	-2°-54'-19	asc. node	-999 May 22 j 02:28	23° $\approx$ 47'19	
min. Earth dist.	-1006 Sep 28 j 12:56	25° $\approx$ 44'42	8.05751 AU	evening set	-999 Jun 13 j 13:26	26° $\approx$ 29'45	
direct	-1006 Dec 03 j 21:21	22° $\approx$ 18'00					
	-1005 Mar 13 j 06:04	0° $\approx$		conjunction	-999 Jul 01 j 16:03	28° $\approx$ 48'09	0°03'40
evening set	-1005 Mar 16 j 07:02	0° $\approx$ 23'18		minimum elong	-999 Jul 01 j 16:03	28° $\approx$ 48'09	0°03'41
				behind sun begin	-999 Jul 01 j 08:48	28° $\approx$ 45'51	
conjunction	-1005 Apr 02 j 23:58	2° $\approx$ 41'31	-2°-19'00	behind sun end	-999 Jul 01 j 23:19	28° $\approx$ 50'27	
minimum elong	-1005 Apr 02 j 23:59	2° $\approx$ 41'32	2°19'02	max. Earth dist.	-999 Jul 02 j 02:05	28° $\approx$ 51'21	10.16779 AU
max. Earth dist.	-1005 Apr 03 j 03:48	2° $\approx$ 42'47	10.01706 AU		-999 Jul 11 j 00:35	0° $\approx$	
morning rise	-1005 Apr 20 j 20:52	5° $\approx$ 01'03		morning rise	-999 Jul 19 j 15:33	1° $\approx$ 05'29	
retrograde	-1005 Aug 06 j 06:31	13° $\approx$ 29'15		retrograde	-999 Oct 29 j 20:38	8° $\approx$ 58'42	
opposition	-1005 Oct 12 j 22:54	9° $\approx$ 58'18	-2°-50'-13	opposition	-998 Jan 04 j 11:03	5° $\approx$ 33'30	0°24'52
min. Earth dist.	-1005 Oct 12 j 18:45	9° $\approx$ 59'10	7.98729 AU	min. Earth dist.	-998 Jan 04 j 03:15	5° $\approx$ 35'05	8.22331 AU
direct	-1005 Dec 18 j 01:56	6° $\approx$ 30'52		direct	-998 Mar 13 j 18:56	2° $\approx$ 04'26	
evening set	-1004 Mar 30 j 07:39	14° $\approx$ 43'26		evening set	-998 Jun 28 j 02:43	10° $\approx$ 09'18	
conjunction	-1004 Apr 17 j 04:55	17° $\approx$ 03'46	-2°-11'-16	conjunction	-998 Jul 16 j 01:47	12° $\approx$ 24'53	0°36'27
minimum elong	-1004 Apr 17 j 04:58	17° $\approx$ 03'47	2°11'17	minimum elong	-998 Jul 16 j 01:45	12° $\approx$ 24'53	0°36'28
max. Earth dist.	-1004 Apr 17 j 11:54	17° $\approx$ 06'04	9.96161 AU	max. Earth dist.	-998 Jul 16 j 10:30	12° $\approx$ 27'39	10.28316 AU
morning rise	-1004 May 05 j 05:11	19° $\approx$ 25'06		morning rise	-998 Aug 02 j 20:45	14° $\approx$ 39'08	

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 34

Attention, astronomical year style is used: The year -998 in astronomical counting style is the year 999 BCE in historical counting style.

retrograde	-998 Nov 12 j 04:13	22° <del>5</del> 21'35		max. Earth dist.	-992 Sep 28 j 20:15	26° <del>7</del> 38'57	10.98086 AU
opposition	-997 Jan 17 j 23:57	18° <del>5</del> 58'00	1°04'01	morning rise	-992 Oct 15 j 12:43	28° <del>7</del> 36'45	
min. Earth dist.	-997 Jan 17 j 16:56	18° <del>5</del> 59'24	8.34436 AU		-992 Oct 27 j 18:05	0° <del>5</del>	
direct	-997 Mar 27 j 22:41	15° <del>5</del> 29'41		retrograde	-991 Jan 22 j 15:20	5° <del>5</del> 34'34	
evening set	-997 Jul 12 j 05:45	23° <del>5</del> 26'56		opposition	-991 Apr 01 j 23:25	2° <del>5</del> 17'31	2°52'05
				min. Earth dist.	-991 Apr 02 j 01:54	2° <del>5</del> 17'03	9.02075 AU
conjunction	-997 Jul 30 j 00:15	25° <del>5</del> 39'21	1°06'32		-991 May 05 j 22:06	30° <del>8</del>	
minimum elong	-997 Jul 30 j 00:12	25° <del>5</del> 39'20	1°06'33	direct	-991 Jun 12 j 09:14	28° <del>7</del> 55'53	
max. Earth dist.	-997 Jul 30 j 07:38	25° <del>5</del> 41'39	10.40813 AU		-991 Jul 19 j 06:34	0° <del>5</del>	
morning rise	-997 Aug 16 j 13:53	27° <del>5</del> 50'16		evening set	-991 Sep 23 j 19:49	6° <del>5</del> 06'34	
	-997 Sep 03 j 20:10	0° <del>5</del>					
retrograde	-997 Nov 25 j 02:59	5° <del>5</del> 22'32		conjunction	-991 Oct 10 j 11:11	8° <del>5</del> 03'15	2°19'01
opposition	-996 Jan 31 j 06:07	2° <del>5</del> 00'33	1°38'40	minimum elong	-991 Oct 10 j 11:12	8° <del>5</del> 03'15	2°19'00
min. Earth dist.	-996 Jan 31 j 00:39	2° <del>5</del> 01'38	8.47217 AU	max. Earth dist.	-991 Oct 10 j 07:12	8° <del>5</del> 02'05	11.05183 AU
	-996 Feb 27 j 10:31	30° <del>8</del>		morning rise	-991 Oct 26 j 23:20	9° <del>5</del> 59'03	
direct	-996 Apr 09 j 19:14	28° <del>5</del> 33'11		retrograde	-990 Feb 03 j 05:59	16° <del>5</del> 54'08	
	-996 May 21 j 17:23	0° <del>5</del>		opposition	-990 Apr 14 j 00:16	13° <del>5</del> 37'19	2°45'48
evening set	-996 Jul 24 j 21:55	6° <del>5</del> 22'16		min. Earth dist.	-990 Apr 14 j 04:47	13° <del>5</del> 36'29	9.08100 AU
				direct	-990 Jun 24 j 12:05	10° <del>5</del> 16'39	
conjunction	-996 Aug 11 j 11:08	8° <del>5</del> 31'23	1°32'30	evening set	-990 Oct 05 j 05:38	17° <del>5</del> 22'03	
minimum elong	-996 Aug 11 j 11:05	8° <del>5</del> 31'22	1°32'31				
max. Earth dist.	-996 Aug 11 j 16:40	8° <del>5</del> 33'06	10.53676 AU	conjunction	-990 Oct 21 j 18:56	19° <del>5</del> 17'41	2°11'22
morning rise	-996 Aug 28 j 19:08	10° <del>5</del> 38'57		minimum elong	-990 Oct 21 j 18:58	19° <del>5</del> 17'41	2°11'22
	-996 Oct 07 j 13:09	15° <del>5</del>		max. Earth dist.	-990 Oct 21 j 12:47	19° <del>5</del> 15'52	11.10077 AU
retrograde	-996 Dec 06 j 18:28	18° <del>5</del> 01'52		morning rise	-990 Nov 07 j 06:01	21° <del>5</del> 12'39	
	-995 Feb 08 j 06:21	15° <del>8</del>		retrograde	-989 Feb 14 j 18:16	28° <del>5</del> 06'32	
opposition	-995 Feb 12 j 06:04	14° <del>5</del> 41'22	2°07'24	opposition	-989 Apr 25 j 23:10	24° <del>5</del> 49'42	2°33'18
min. Earth dist.	-995 Feb 12 j 02:39	14° <del>5</del> 42'02	8.60101 AU	min. Earth dist.	-989 Apr 26 j 04:52	24° <del>5</del> 48'39	9.11807 AU
direct	-995 Apr 23 j 07:25	11° <del>5</del> 15'05		direct	-989 Jul 06 j 09:54	21° <del>5</del> 29'53	
	-995 Jul 02 j 10:57	15° <del>5</del>		evening set	-989 Oct 16 j 11:22	28° <del>5</del> 31'15	
evening set	-995 Aug 07 j 02:50	18° <del>5</del> 55'45			-989 Oct 29 j 05:39	0° <del>5</del>	
conjunction	-995 Aug 24 j 10:31	21° <del>5</del> 01'39	1°53'22	conjunction	-989 Nov 01 j 23:36	0° <del>5</del> 26'19	1°58'47
minimum elong	-995 Aug 24 j 10:28	21° <del>5</del> 01'38	1°53'23	minimum elong	-989 Nov 01 j 23:39	0° <del>5</del> 26'20	1°58'46
max. Earth dist.	-995 Aug 24 j 13:35	21° <del>5</del> 02'35	10.66349 AU	max. Earth dist.	-989 Nov 01 j 16:33	0° <del>5</del> 24'15	11.12597 AU
morning rise	-995 Sep 10 j 13:09	23° <del>5</del> 06'01		morning rise	-989 Nov 18 j 10:20	2° <del>5</del> 21'00	
	-995 Nov 29 j 06:54	0° <del>5</del>		retrograde	-988 Feb 26 j 08:47	9° <del>5</del> 15'16	
retrograde	-995 Dec 19 j 01:20	0° <del>5</del> 20'42		opposition	-988 May 06 j 21:13	5° <del>5</del> 58'10	2°15'06
	-994 Jan 07 j 23:38	30° <del>8</del>		min. Earth dist.	-988 May 07 j 03:08	5° <del>5</del> 57'05	9.13067 AU
opposition	-994 Feb 24 j 23:59	27° <del>5</del> 01'26	2°29'22	direct	-988 Jul 17 j 06:03	2° <del>5</del> 39'04	
min. Earth dist.	-994 Feb 24 j 22:28	27° <del>5</del> 01'44	8.72529 AU	evening set	-988 Oct 26 j 14:47	9° <del>5</del> 37'44	
direct	-994 May 06 j 12:40	23° <del>5</del> 36'20					
	-994 Aug 10 j 00:33	0° <del>5</del>		conjunction	-988 Nov 12 j 02:49	11° <del>5</del> 32'46	1°41'44
evening set	-994 Aug 19 j 20:57	1° <del>5</del> 08'39		minimum elong	-988 Nov 12 j 02:51	11° <del>5</del> 32'47	1°41'43
				max. Earth dist.	-988 Nov 11 j 19:37	11° <del>5</del> 30'40	11.12655 AU
conjunction	-994 Sep 05 j 23:26	3° <del>5</del> 11'35	2°08'34	morning rise	-988 Nov 28 j 13:57	13° <del>5</del> 27'39	
minimum elong	-994 Sep 05 j 23:23	3° <del>5</del> 11'35	2°08'34		-988 Dec 12 j 08:30	15° <del>5</del>	
max. Earth dist.	-994 Sep 05 j 23:50	3° <del>5</del> 11'43	10.78296 AU	retrograde	-987 Mar 09 j 02:42	20° <del>5</del> 23'52	
morning rise	-994 Sep 22 j 21:15	5° <del>5</del> 13'08		opposition	-987 May 18 j 19:52	17° <del>5</del> 06'18	1°51'51
retrograde	-994 Dec 31 j 01:19	12° <del>5</del> 20'48		min. Earth dist.	-987 May 19 j 02:26	17° <del>5</del> 05'06	9.11844 AU
opposition	-993 Mar 09 j 12:10	9° <del>5</del> 02'31	2°44'08		-987 Jun 18 j 23:02	15° <del>8</del>	
min. Earth dist.	-993 Mar 09 j 11:53	9° <del>5</del> 02'35	8.83969 AU	direct	-987 Jul 28 j 22:23	13° <del>5</del> 47'45	
direct	-993 May 19 j 11:37	5° <del>5</del> 38'36			-987 Sep 05 j 21:00	15° <del>5</del>	
evening set	-993 Sep 01 j 04:57	13° <del>5</del> 02'59		evening set	-987 Nov 06 j 17:42	20° <del>5</del> 45'07	
conjunction	-993 Sep 18 j 02:57	15° <del>5</del> 03'22	2°17'52	conjunction	-987 Nov 23 j 06:03	22° <del>5</del> 40'35	1°20'48
minimum elong	-993 Sep 18 j 02:56	15° <del>5</del> 03'21	2°17'52	minimum elong	-987 Nov 23 j 06:06	22° <del>5</del> 40'36	1°20'47
max. Earth dist.	-993 Sep 18 j 01:50	15° <del>5</del> 03'01	10.89018 AU	max. Earth dist.	-987 Nov 22 j 21:39	22° <del>5</del> 38'07	11.10247 AU
morning rise	-993 Oct 04 j 20:39	17° <del>5</del> 02'28		morning rise	-987 Dec 09 j 18:32	24° <del>5</del> 36'11	
retrograde	-992 Jan 11 j 22:58	24° <del>5</del> 04'29			-986 Feb 03 j 20:01	0° <del>5</del>	
opposition	-992 Mar 20 j 19:41	20° <del>5</del> 46'57	2°51'38	retrograde	-986 Mar 20 j 21:13	1° <del>5</del> 35'56	
min. Earth dist.	-992 Mar 20 j 20:28	20° <del>5</del> 46'48	8.93941 AU		-986 May 06 j 10:07	30° <del>8</del>	
direct	-992 May 31 j 01:59	17° <del>5</del> 24'13		opposition	-986 May 30 j 20:03	28° <del>5</del> 17'39	1°24'14
evening set	-992 Sep 12 j 04:04	24° <del>5</del> 41'18		min. Earth dist.	-986 May 31 j 03:41	28° <del>5</del> 16'15	9.08179 AU
				direct	-986 Aug 09 j 13:31	24° <del>5</del> 59'24	
conjunction	-992 Sep 28 j 22:23	26° <del>5</del> 39'35	2°21'17		-986 Oct 31 j 10:09	0° <del>5</del>	
minimum elong	-992 Sep 28 j 22:23	26° <del>5</del> 39'35	2°21'17	evening set	-986 Nov 17 j 22:09	1° <del>5</del> 57'04	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 35

Attention, astronomical year style is used: The year -986 in astronomical counting style is the year 987 BCE in historical counting style.

conjunction	-986 Dec 04 j 11:22	3°♂53'24	0°56'38	evening set	-979 Jan 27 j 07:50	13°♂51'19	
minimum elong	-986 Dec 04 j 11:24	3°♂53'25	0°56'37		-979 Feb 05 j 12:38	15°♂	
max. Earth dist.	-986 Dec 04 j 01:52	3°♂50'36	11.05447 AU				
morning rise	-986 Dec 21 j 01:48	5°♂50'07		conjunction	-979 Feb 13 j 10:58	15°♂59'52	-1°-45'-5
retrograde	-985 Apr 01 j 21:42	12°♂54'59		minimum elong	-979 Feb 13 j 10:55	15°♂59'51	1°45'06
opposition	-985 Jun 11 j 22:39	9°♂35'47	0°53'06	max. Earth dist.	-979 Feb 13 j 07:05	15°♂58'38	10.41162 AU
min. Earth dist.	-985 Jun 12 j 06:50	9°♂34'16	9.02190 AU	morning rise	-979 Mar 02 j 18:53	18°♂09'57	
direct	-985 Aug 21 j 07:36	6°♂17'35		retrograde	-979 Jun 17 j 12:14	26°♂10'23	
evening set	-985 Nov 29 j 05:44	13°♂17'07		opposition	-979 Aug 26 j 00:39	22°♂42'58	-2°-22'-40
				min. Earth dist.	-979 Aug 26 j 03:05	22°♂42'29	8.34855 AU
conjunction	-985 Dec 15 j 20:29	15°♂14'44	0°29'59	direct	-979 Nov 01 j 04:36	19°♂20'24	
minimum elong	-985 Dec 15 j 20:30	15°♂14'44	0°29'58	evening set	-978 Feb 09 j 19:55	27°♂01'17	
max. Earth dist.	-985 Dec 15 j 11:35	15°♂12'05	10.98409 AU				
morning rise	-984 Jan 01 j 13:08	17°♂12'58		conjunction	-978 Feb 27 j 02:36	29°♂12'36	-2°-3'-18
retrograde	-984 Apr 13 j 04:15	24°♂24'29		minimum elong	-978 Feb 27 j 02:33	29°♂12'35	2°03'20
opposition	-984 Jun 23 j 05:05	21°♂04'09	0°19'21	max. Earth dist.	-978 Feb 27 j 00:27	29°♂11'55	10.28582 AU
min. Earth dist.	-984 Jun 23 j 12:24	21°♂02'47	8.94086 AU		-978 Mar 05 j 07:14	0°♂	
direct	-984 Sep 01 j 02:35	17°♂45'48		morning rise	-978 Mar 16 j 14:03	1°♂25'30	
evening set	-984 Dec 09 j 18:16	24°♂48'45		retrograde	-978 Jul 01 j 20:03	9°♂36'00	
				opposition	-978 Sep 08 j 19:17	6°♂07'20	-2°-41'-55
conjunction	-984 Dec 26 j 10:55	26°♂48'00	0°01'44	min. Earth dist.	-978 Sep 08 j 19:52	6°♂07'13	8.22744 AU
minimum elong	-984 Dec 26 j 10:55	26°♂48'00	0°01'44	direct	-978 Nov 14 j 12:13	2°♂43'29	
behind sun begin	-984 Dec 26 j 03:55	26°♂45'56		evening set	-977 Feb 23 j 19:36	10°♂34'19	
behind sun end	-984 Dec 26 j 17:55	26°♂50'05					
max. Earth dist.	-984 Dec 26 j 02:55	26°♂45'38	10.89376 AU	conjunction	-977 Mar 13 j 06:06	12°♂48'25	-2°-15'-13
morning rise	-983 Jan 12 j 06:07	28°♂48'07		minimum elong	-977 Mar 13 j 06:05	12°♂48'25	2°15'15
desc. node	-983 Jan 17 j 11:17	29°♂24'33		max. Earth dist.	-977 Mar 13 j 05:32	12°♂48'14	10.17031 AU
	-983 Jan 22 j 15:22	0°♂		morning rise	-977 Mar 30 j 21:20	15°♂04'05	
retrograde	-983 Apr 25 j 18:47	6°♂07'43		retrograde	-977 Jul 16 j 10:18	23°♂23'11	
opposition	-983 Jul 05 j 16:11	2°♂46'04	0°-15'-54	opposition	-977 Sep 22 j 20:06	19°♂53'32	-2°-52'-32
min. Earth dist.	-983 Jul 05 j 22:34	2°♂44'52	8.84161 AU	min. Earth dist.	-977 Sep 22 j 19:07	19°♂53'44	8.12047 AU
	-983 Aug 18 j 08:37	30°♂		direct	-977 Nov 28 j 04:43	16°♂28'20	
direct	-983 Sep 13 j 01:13	29°♂27'20		evening set	-976 Mar 09 j 06:23	24°♂28'36	
	-983 Oct 08 j 07:20	0°♂					
evening set	-983 Dec 21 j 13:50	6°♂35'17		conjunction	-976 Mar 26 j 21:05	26°♂45'23	-2°-19'-35
				minimum elong	-976 Mar 26 j 21:05	26°♂45'24	2°19'37
conjunction	-982 Jan 07 j 08:34	8°♂36'30	0°-27'-13	max. Earth dist.	-976 Mar 26 j 22:26	26°♂45'50	10.07303 AU
minimum elong	-982 Jan 07 j 08:33	8°♂36'30	0°27'14	morning rise	-976 Apr 13 j 16:11	29°♂03'35	
max. Earth dist.	-982 Jan 07 j 00:42	8°♂34'07	10.78687 AU		-976 Apr 21 j 02:53	0°♂	
morning rise	-982 Jan 24 j 06:44	10°♂38'48		retrograde	-976 Jul 30 j 05:00	7°♂28'51	
retrograde	-982 May 08 j 16:48	18°♂07'37		opposition	-976 Oct 06 j 01:51	3°♂58'32	-2°-53'-7
opposition	-982 Jul 18 j 08:38	14°♂44'36	0°-51'-21	min. Earth dist.	-976 Oct 05 j 23:28	3°♂59'01	8.03520 AU
min. Earth dist.	-982 Jul 18 j 14:35	14°♂43'29	8.72796 AU	direct	-976 Dec 11 j 05:10	0°♂32'00	
direct	-982 Sep 25 j 03:09	11°♂25'13		evening set	-975 Mar 24 j 02:42	8°♂40'27	
evening set	-981 Jan 02 j 17:48	18°♂39'42					
				conjunction	-975 Apr 10 j 21:46	10°♂59'35	-2°-15'-37
conjunction	-981 Jan 19 j 14:53	20°♂43'08	0°-55'-32	minimum elong	-975 Apr 10 j 21:48	10°♂59'36	2°15'39
minimum elong	-981 Jan 19 j 14:51	20°♂43'07	0°55'33	max. Earth dist.	-975 Apr 11 j 01:19	11°♂00'45	10.00085 AU
max. Earth dist.	-981 Jan 19 j 07:17	20°♂40'48	10.66760 AU	morning rise	-975 Apr 28 j 20:33	13°♂19'53	
morning rise	-981 Feb 05 j 16:14	22°♂47'52		retrograde	-975 Aug 14 j 02:04	21°♂48'12	
	-981 Apr 28 j 15:44	0°♂		opposition	-975 Oct 20 j 11:00	18°♂17'35	-2°-43'-2
retrograde	-981 May 21 j 22:01	0°♂26'53		min. Earth dist.	-975 Oct 20 j 07:12	18°♂18'23	7.97752 AU
	-981 Jun 14 j 08:20	30°♂		direct	-975 Dec 25 j 13:21	14°♂49'51	
opposition	-981 Jul 31 j 07:23	27°♂02'23	-1°-25'-28	evening set	-974 Apr 08 j 06:13	23°♂04'30	
min. Earth dist.	-981 Jul 31 j 12:53	27°♂01'20	8.60448 AU				
direct	-981 Oct 07 j 12:16	23°♂42'07		conjunction	-974 Apr 26 j 05:22	25°♂25'25	-2°-3'-12
	-980 Jan 06 j 08:12	0°♂		minimum elong	-974 Apr 26 j 05:25	25°♂25'27	2°03'13
evening set	-980 Jan 15 j 07:19	1°♂04'27		max. Earth dist.	-974 Apr 26 j 11:14	25°♂27'22	9.95879 AU
				morning rise	-974 May 14 j 07:11	27°♂47'11	
conjunction	-980 Feb 01 j 07:13	3°♂10'20	-1°-21'-59		-974 May 31 j 23:34	0°♂	
minimum elong	-980 Feb 01 j 07:10	3°♂10'20	1°22'00	retrograde	-974 Aug 28 j 22:08	6°♂15'05	
max. Earth dist.	-980 Feb 01 j 01:17	3°♂08'30	10.54076 AU	opposition	-974 Nov 03 j 21:32	2°♂44'36	-2°-22'-34
morning rise	-980 Feb 18 j 11:48	5°♂17'41		min. Earth dist.	-974 Nov 03 j 16:12	2°♂45'43	7.95147 AU
retrograde	-980 Jun 03 j 12:10	13°♂07'26			-974 Dec 11 j 23:51	30°♂	
opposition	-980 Aug 12 j 12:44	9°♂41'26	-1°-56'-32	direct	-973 Jan 09 j 03:24	29°♂15'52	
min. Earth dist.	-980 Aug 12 j 16:53	9°♂40'38	8.47624 AU		-973 Feb 06 j 03:23	0°♂	
direct	-980 Oct 19 j 05:32	6°♂20'06		evening set	-973 Apr 23 j 13:58	7°♂34'15	

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 36

Attention, astronomical year style is used: The year -973 in astronomical counting style is the year 974 BCE in historical counting style.

conjunction	-973 May 11 j 16:31	9°8'56"14	-1°-42'-58	opposition	-967 Jan 24 j 17:01	26°25'30	1°23'35
minimum elong	-973 May 11 j 16:34	9°8'56"15	1°42'59	min. Earth dist.	-967 Jan 24 j 11:15	26°26'39	8.40333 AU
max. Earth dist.	-973 May 12 j 00:41	9°8'58"55	9.94984 AU	direct	-967 Apr 04 j 00:38	22°25'07	
morning rise	-973 May 29 j 20:23	12°8'18"37			-967 Jul 12 j 06:06	0°0	
	-973 Jun 20 j 12:57	15°8		evening set	-967 Jul 19 j 04:26	0°0'50"02	
retrograde	-973 Sep 12 j 14:55	20°8'42"43					
opposition	-973 Nov 18 j 07:28	17°8'12"45	-1°-52'-59	conjunction	-967 Aug 05 j 20:02	3°0'00"42	1°21'15
min. Earth dist.	-973 Nov 18 j 00:30	17°8'14"13	7.95887 AU	minimum elong	-967 Aug 05 j 19:58	3°0'00"41	1°21'16
	-973 Dec 17 j 03:22	15°8		max. Earth dist.	-967 Aug 06 j 01:57	3°0'02"33	10.46890 AU
direct	-972 Jan 23 j 20:28	13°8'43"17		morning rise	-967 Aug 23 j 06:50	5°0'09"52	
	-972 Mar 01 j 05:35	15°8		retrograde	-967 Dec 01 j 10:18	12°0'36"55	
evening set	-972 May 07 j 22:43	22°8'02"43		opposition	-966 Feb 06 j 19:29	9°0'15"16	1°55'06
				min. Earth dist.	-966 Feb 06 j 14:22	9°0'16"16	8.53471 AU
conjunction	-972 May 26 j 03:28	24°8'24"50	-1°-16'-18	direct	-966 Apr 17 j 16:44	5°0'48"01	
minimum elong	-972 May 26 j 03:31	24°8'24"51	1°16'18	evening set	-966 Aug 01 j 13:53	13°0'32"25	
max. Earth dist.	-972 May 26 j 13:25	24°8'28"06	9.97440 AU		-966 Aug 13 j 14:23	15°0	
morning rise	-972 Jun 13 j 08:02	26°8'46"55					
	-972 Jul 09 j 16:53	0°II		conjunction	-966 Aug 19 j 00:09	15°0'39"48	1°44'30
retrograde	-972 Sep 26 j 02:24	5°II'04"17		minimum elong	-966 Aug 19 j 00:06	15°0'39"47	1°44'31
opposition	-972 Dec 01 j 14:58	1°II'35"14	-1°-16'-29	max. Earth dist.	-966 Aug 19 j 04:52	15°0'41"15	10.60006 AU
min. Earth dist.	-972 Dec 01 j 06:56	1°II'36"54	7.99894 AU	morning rise	-966 Sep 05 j 05:22	17°0'45"38	
	-972 Dec 21 j 11:23	30°R8		retrograde	-966 Dec 13 j 21:08	25°0'03"51	
direct	-971 Feb 06 j 13:59	28°8'05"19		opposition	-965 Feb 19 j 15:35	21°0'43"38	2°20'11
	-971 Mar 25 j 01:01	0°II		min. Earth dist.	-965 Feb 19 j 11:32	21°0'44"25	8.66489 AU
evening set	-971 May 23 j 05:19	6°II'23"10		direct	-965 May 01 j 00:27	18°0'17"42	
				evening set	-965 Aug 14 j 12:32	25°0'53"36	
conjunction	-971 Jun 10 j 10:33	8°II'44"28	0°-45'-7				
minimum elong	-971 Jun 10 j 10:36	8°II'44"29	0°45'07	conjunction	-965 Aug 31 j 17:34	27°0'57"52	2°02'18
max. Earth dist.	-971 Jun 10 j 21:21	8°II'47"59	10.03038 AU	minimum elong	-965 Aug 31 j 17:31	27°0'57"51	2°02'18
morning rise	-971 Jun 28 j 14:08	11°II'05"14		max. Earth dist.	-965 Aug 31 j 21:01	27°0'58"55	10.72687 AU
retrograde	-971 Oct 10 j 07:07	19°II'13"41		morning rise	-965 Sep 17 j 17:30	0°0'00"39	
opposition	-971 Dec 15 j 18:17	15°II'45"51	0°-35'-48		-965 Sep 17 j 15:18	0°0	
min. Earth dist.	-971 Dec 15 j 10:01	15°II'47"34	8.06873 AU	retrograde	-965 Dec 26 j 00:59	7°0'11"12	
direct	-970 Feb 21 j 04:48	12°II'15"50		opposition	-964 Mar 03 j 05:54	3°0'52"18	2°38'13
evening set	-970 Jun 07 j 06:33	20°II'29"46		min. Earth dist.	-964 Mar 03 j 03:57	3°0'52"40	8.78788 AU
				direct	-964 May 13 j 00:43	0°0'27"43	
conjunction	-970 Jun 25 j 10:29	22°II'49"19	0°-11'-42	evening set	-964 Aug 26 j 00:58	7°0'55"29	
minimum elong	-970 Jun 25 j 10:29	22°II'49"19	0°11'43				
behind sun begin	-970 Jun 25 j 05:24	22°II'47"42		conjunction	-964 Sep 12 j 01:03	9°0'56"58	2°14'17
behind sun end	-970 Jun 25 j 15:34	22°II'50"56		minimum elong	-964 Sep 12 j 01:01	9°0'56"57	2°14'17
max. Earth dist.	-970 Jun 25 j 21:13	22°II'52"46	10.11377 AU	max. Earth dist.	-964 Sep 12 j 02:11	9°0'57"18	10.84378 AU
morning rise	-970 Jul 13 j 11:30	25°II'07"55		morning rise	-964 Sep 28 j 20:28	11°0'57"05	
	-970 Aug 25 j 07:15	0°2		retrograde	-963 Jan 05 j 23:51	19°0'01"20	
retrograde	-970 Oct 24 j 04:19	3°2'06"08		opposition	-963 Mar 15 j 15:26	15°0'43"30	2°48'59
asc. node	-970 Nov 03 j 20:22	2°2'59"41		min. Earth dist.	-963 Mar 15 j 15:37	15°0'43"28	8.89848 AU
	-970 Dec 25 j 13:08	30°RII		direct	-963 May 25 j 17:33	12°0'20"18	
opposition	-970 Dec 29 j 16:17	29°II'39"45	0°06'10	evening set	-963 Sep 07 j 03:58	19°0'40"28	
min. Earth dist.	-970 Dec 29 j 08:35	29°II'41"19	8.16356 AU				
direct	-969 Mar 07 j 16:37	26°II'09"57		conjunction	-963 Sep 23 j 23:46	21°0'39"36	2°20'20
	-969 May 15 j 13:12	0°2		minimum elong	-963 Sep 23 j 23:45	21°0'39"36	2°20'20
evening set	-969 Jun 21 j 23:47	4°2'18"04		max. Earth dist.	-963 Sep 23 j 22:20	21°0'39"10	10.94613 AU
				morning rise	-963 Oct 10 j 15:38	23°0'37"34	
conjunction	-969 Jul 10 j 00:46	6°2'35"06	0°21'48		-963 Dec 21 j 18:04	0°0	
minimum elong	-969 Jul 10 j 00:45	6°2'35"06	0°21'49	retrograde	-962 Jan 17 j 16:43	0°0'36"57	
max. Earth dist.	-969 Jul 10 j 10:25	6°2'38"10	10.21905 AU		-962 Feb 14 j 03:19	30°R0	
morning rise	-969 Jul 27 j 21:55	8°2'50"54		opposition	-962 Mar 27 j 20:47	27°0'19"54	2°52'34
retrograde	-969 Nov 06 j 15:16	16°2'38"22		min. Earth dist.	-962 Mar 27 j 22:25	27°0'19"36	8.99233 AU
opposition	-968 Jan 12 j 08:01	13°2'13"33	0°46'42	direct	-962 Jun 07 j 04:49	23°0'58"00	
min. Earth dist.	-968 Jan 12 j 01:25	13°2'14"53	8.27734 AU		-962 Sep 08 j 11:13	0°0	
direct	-968 Mar 20 j 23:43	9°2'44"18		evening set	-962 Sep 18 j 23:00	1°0'11"23	
evening set	-968 Jul 05 j 07:32	17°2'45"16					
				conjunction	-962 Oct 05 j 15:33	3°0'08"40	2°20'36
conjunction	-968 Jul 23 j 04:12	19°2'59"14	0°53'18	minimum elong	-962 Oct 05 j 15:33	3°0'08"40	2°20'36
minimum elong	-968 Jul 23 j 04:10	19°2'59"13	0°53'19	max. Earth dist.	-962 Oct 05 j 12:28	3°0'07"45	11.03004 AU
max. Earth dist.	-968 Jul 23 j 11:50	20°2'01"38	10.33967 AU	morning rise	-962 Oct 22 j 04:44	5°0'04"59	
morning rise	-968 Aug 09 j 20:28	22°2'11"48		retrograde	-961 Jan 29 j 09:01	12°0'00"57	
retrograde	-968 Nov 18 j 16:16	29°2'48"42		opposition	-961 Apr 08 j 22:38	8°0'44"24	2°49'15

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 37

Attention, astronomical year style is used: The year -961 in astronomical counting style is the year 962 BCE in historical counting style.

min. Earth dist.	-961 Apr 09 j 01:09	8° $\overline{43}$ '56	9.06582 AU	min. Earth dist.	-955 Jun 18 j 10:22	16° $\overline{20}$ '62	8.98113 AU
direct	-961 Jun 19 j 10:36	5° $\overline{23}$ '42		direct	-955 Aug 27 j 03:09	12° $\overline{27}$ '49	
evening set	-961 Sep 30 j 11:33	12° $\overline{31}$ '16		evening set	-955 Dec 04 j 23:14	19° $\overline{27}$ '51	
conjunction	-961 Oct 17 j 01:49	14° $\overline{27}$ '14	2°15'20	conjunction	-955 Dec 21 j 14:52	21° $\overline{27}$ '49	0°14'34
minimum elong	-961 Oct 17 j 01:51	14° $\overline{27}$ '15	2°15'20	minimum elong	-955 Dec 21 j 14:53	21° $\overline{27}$ '49	0°14'34
max. Earth dist.	-961 Oct 16 j 21:53	14° $\overline{26}$ '05	11.09227 AU	behind sun begin	-955 Dec 21 j 11:40	21° $\overline{27}$ '48	
morning rise	-961 Nov 02 j 13:11	16° $\overline{22}$ '27		behind sun end	-955 Dec 21 j 18:06	21° $\overline{27}$ '50	
retrograde	-960 Feb 09 j 23:42	23° $\overline{16}$ '28		max. Earth dist.	-955 Dec 21 j 04:07	21° $\overline{27}$ '46	10.93559 AU
opposition	-960 Apr 19 j 22:28	20° $\overline{00}$ '09	2°39'30	morning rise	-954 Jan 07 j 09:01	23° $\overline{27}$ '49	
min. Earth dist.	-960 Apr 20 j 02:34	19° $\overline{59}$ '24	9.11616 AU		-954 Mar 14 j 16:32	0° $\overline{00}$ '00	
direct	-960 Jun 30 j 09:21	16° $\overline{40}$ '30		retrograde	-954 Apr 20 j 11:17	1° $\overline{00}$ '04	
evening set	-960 Oct 10 j 19:14	23° $\overline{43}$ '21			-954 May 28 j 00:08	30° $\overline{R}$ ' $\overline{27}$	
conjunction	-960 Oct 27 j 07:55	25° $\overline{38}$ '32	2°04'56	opposition	-954 Jun 30 j 10:37	27° $\overline{27}$ '43	0°00'04
minimum elong	-960 Oct 27 j 07:57	25° $\overline{38}$ '33	2°04'56	min. Earth dist.	-954 Jun 30 j 19:31	27° $\overline{27}$ '42	8.88461 AU
max. Earth dist.	-960 Oct 27 j 02:06	25° $\overline{36}$ '50	11.13039 AU	desc. node	-954 Jul 01 j 02:42	27° $\overline{27}$ '40	
morning rise	-960 Nov 12 j 18:33	27° $\overline{33}$ '11		direct	-954 Sep 08 j 01:19	24° $\overline{27}$ '25	
	-960 Dec 05 j 03:36	0° $\overline{00}$ '00			-954 Dec 03 j 11:31	0° $\overline{00}$ '00	
retrograde	-959 Feb 20 j 13:21	4° $\overline{00}$ '26		evening set	-954 Dec 16 j 15:29	1° $\overline{00}$ '31	
opposition	-959 May 01 j 21:10	1° $\overline{00}$ '10	2°23'48	conjunction	-953 Jan 02 j 09:13	3° $\overline{00}$ '31	0°-14'-13
min. Earth dist.	-959 May 02 j 03:20	1° $\overline{00}$ '09	9.14131 AU	minimum elong	-953 Jan 02 j 09:12	3° $\overline{00}$ '31	0°14'14
	-959 May 18 j 06:13	30° $\overline{R}$ ' $\overline{27}$		behind sun begin	-953 Jan 02 j 05:43	3° $\overline{00}$ '30	
direct	-959 Jul 12 j 06:04	27° $\overline{51}$ '34		behind sun end	-953 Jan 02 j 12:40	3° $\overline{00}$ '32	
	-959 Sep 03 j 01:58	0° $\overline{00}$ '00		max. Earth dist.	-953 Jan 01 j 23:25	3° $\overline{00}$ '28	10.83061 AU
evening set	-959 Oct 21 j 23:50	4° $\overline{00}$ '51		morning rise	-953 Jan 19 j 06:05	5° $\overline{00}$ '32	
conjunction	-959 Nov 07 j 11:44	6° $\overline{00}$ '45	1°49'51	retrograde	-953 May 03 j 05:17	12° $\overline{00}$ '57	
minimum elong	-959 Nov 07 j 11:46	6° $\overline{00}$ '46	1°49'51	opposition	-953 Jul 13 j 00:36	9° $\overline{00}$ '34	0°-35'-27
max. Earth dist.	-959 Nov 07 j 03:31	6° $\overline{00}$ '43	11.14266 AU	min. Earth dist.	-953 Jul 13 j 08:26	9° $\overline{00}$ '33	8.77188 AU
morning rise	-959 Nov 23 j 22:39	8° $\overline{00}$ '40		direct	-953 Sep 20 j 02:32	6° $\overline{00}$ '15	
	-958 Feb 05 j 03:59	15° $\overline{00}$ '00		evening set	-953 Dec 28 j 15:23	13° $\overline{00}$ '27	
retrograde	-958 Mar 04 j 04:24	15° $\overline{00}$ '35		conjunction	-952 Jan 14 j 11:31	15° $\overline{00}$ '29	0°-42'-56
	-958 Mar 31 j 15:52	15° $\overline{00}$ ' $\overline{00}$		minimum elong	-952 Jan 14 j 11:29	15° $\overline{00}$ '29	0°42'57
opposition	-958 May 13 j 19:33	12° $\overline{00}$ '18	2°02'47	max. Earth dist.	-952 Jan 14 j 03:24	15° $\overline{00}$ '27	10.71137 AU
min. Earth dist.	-958 May 14 j 03:12	12° $\overline{00}$ '17	9.13985 AU	morning rise	-952 Jan 31 j 11:17	17° $\overline{00}$ '33	
direct	-958 Jul 24 j 00:07	9° $\overline{00}$ '00		retrograde	-952 May 15 j 07:21	25° $\overline{00}$ '08	
	-958 Oct 24 j 13:10	15° $\overline{00}$ '00		opposition	-952 Jul 24 j 20:34	21° $\overline{00}$ '44	-1°-10'-24
evening set	-958 Nov 02 j 02:59	15° $\overline{00}$ '58		min. Earth dist.	-952 Jul 25 j 02:38	21° $\overline{00}$ '42	8.64747 AU
conjunction	-958 Nov 18 j 15:03	17° $\overline{00}$ '53	1°30'36	direct	-952 Oct 01 j 08:59	18° $\overline{00}$ '23	
minimum elong	-958 Nov 18 j 15:05	17° $\overline{00}$ '53	1°30'36	evening set	-951 Jan 09 j 00:26	25° $\overline{00}$ '42	
max. Earth dist.	-958 Nov 18 j 05:57	17° $\overline{00}$ '50	11.12811 AU	conjunction	-951 Jan 25 j 23:10	27° $\overline{00}$ '47	-1°-10'-24
morning rise	-958 Dec 05 j 02:54	19° $\overline{00}$ '48		minimum elong	-951 Jan 25 j 23:08	27° $\overline{00}$ '47	1°10'26
retrograde	-957 Mar 15 j 22:21	26° $\overline{00}$ '46		max. Earth dist.	-951 Jan 25 j 16:03	27° $\overline{00}$ '45	10.58279 AU
opposition	-957 May 25 j 18:57	23° $\overline{00}$ '28	1°37'04	morning rise	-951 Feb 12 j 02:11	29° $\overline{00}$ '54	
min. Earth dist.	-957 May 26 j 02:55	23° $\overline{00}$ '27	9.11150 AU		-951 Feb 12 j 21:40	0° $\overline{00}$ '00	
direct	-957 Aug 04 j 17:09	20° $\overline{00}$ '10		retrograde	-951 May 28 j 18:52	7° $\overline{00}$ '39	
evening set	-957 Nov 13 j 06:42	27° $\overline{00}$ '08		opposition	-951 Aug 06 j 23:02	4° $\overline{00}$ '13	-1°-43'-6
conjunction	-957 Nov 29 j 19:33	29° $\overline{00}$ '03	1°07'49	min. Earth dist.	-951 Aug 07 j 03:47	4° $\overline{00}$ '12	8.51660 AU
minimum elong	-957 Nov 29 j 19:35	29° $\overline{00}$ '03	1°07'48	direct	-951 Oct 13 j 21:36	0° $\overline{00}$ '52	
max. Earth dist.	-957 Nov 29 j 10:14	29° $\overline{00}$ '01	11.08726 AU	evening set	-950 Jan 21 j 20:08	8° $\overline{00}$ '20	
	-957 Dec 07 j 18:15	0° $\overline{00}$ '00		conjunction	-950 Feb 07 j 21:44	10° $\overline{00}$ '27	-1°-35'-13
morning rise	-957 Dec 16 j 08:51	1° $\overline{00}$ '00		minimum elong	-950 Feb 07 j 21:41	10° $\overline{00}$ '27	1°35'15
retrograde	-956 Mar 26 j 22:26	8° $\overline{00}$ '22		max. Earth dist.	-950 Feb 07 j 15:36	10° $\overline{00}$ '25	10.45048 AU
opposition	-956 Jun 05 j 20:36	4° $\overline{00}$ '44	1°07'27	morning rise	-950 Feb 25 j 04:13	12° $\overline{00}$ '36	
min. Earth dist.	-956 Jun 06 j 04:45	4° $\overline{00}$ '42	9.05776 AU		-950 Mar 17 j 08:43	15° $\overline{00}$ '00	
direct	-956 Aug 15 j 10:07	1° $\overline{00}$ '26		retrograde	-950 Jun 11 j 15:22	20° $\overline{00}$ '33	
evening set	-956 Nov 23 j 12:55	8° $\overline{00}$ '24		opposition	-950 Aug 20 j 08:12	17° $\overline{00}$ '05	-2°-11'-45
conjunction	-956 Dec 10 j 02:56	10° $\overline{00}$ '21	0°42'12	min. Earth dist.	-950 Aug 20 j 11:50	17° $\overline{00}$ '04	8.38521 AU
minimum elong	-956 Dec 10 j 02:58	10° $\overline{00}$ '21	0°42'11	direct	-950 Sep 17 j 23:41	15° $\overline{00}$ ' $\overline{00}$	
max. Earth dist.	-956 Dec 09 j 16:44	10° $\overline{00}$ '18	11.02220 AU		-950 Oct 26 j 16:50	13° $\overline{00}$ '42	
morning rise	-956 Dec 26 j 18:25	12° $\overline{00}$ '19			-950 Dec 03 j 14:23	15° $\overline{00}$ '00	
retrograde	-955 Apr 08 j 01:33	19° $\overline{00}$ '27		evening set	-949 Feb 04 j 03:05	21° $\overline{00}$ '20	
opposition	-955 Jun 18 j 01:33	16° $\overline{00}$ '27	0°34'46	conjunction	-949 Feb 21 j 08:01	23° $\overline{00}$ '30	-1°-55'-51

# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 38

Attention, astronomical year style is used: The year -949 in astronomical counting style is the year 950 BCE in historical counting style.

minimum elong	-949 Feb 21 j 07:58	23° $\approx$ 30'30	1°55'52	evening set	-943 May 01 j 13:04	15° $\text{U}$ 54'15	
max. Earth dist.	-949 Feb 21 j 03:44	23° $\approx$ 29'10	10.32076 AU				
morning rise	-949 Mar 10 j 18:03	25° $\approx$ 42'25		conjunction	-943 May 19 j 16:57	18° $\text{U}$ 16'31	-1°-28'-44
	-949 Apr 17 j 06:33	0° $\text{X}$		minimum elong	-943 May 19 j 17:00	18° $\text{U}$ 16'32	1°28'45
retrograde	-949 Jun 25 j 18:30	3° $\text{X}$ 49'19		max. Earth dist.	-943 May 20 j 02:57	18° $\text{U}$ 19'48	9.95604 AU
opposition	-949 Sep 03 j 00:19	0° $\text{X}$ 20'33	-2°-34'-22	morning rise	-943 Jun 06 j 21:28	20° $\text{U}$ 38'57	
min. Earth dist.	-949 Sep 03 j 02:24	0° $\text{X}$ 20'08	8.25988 AU	retrograde	-943 Sep 20 j 04:35	29° $\text{U}$ 00'03	
	-949 Sep 07 j 07:12	30° $\text{R}$ $\approx$		opposition	-943 Nov 25 j 17:43	25° $\text{U}$ 30'42	-1°-33'-14
direct	-949 Nov 08 j 22:16	26° $\approx$ 56'36		min. Earth dist.	-943 Nov 25 j 09:56	25° $\text{U}$ 32'20	7.97584 AU
	-948 Jan 07 j 05:38	0° $\text{X}$		direct	-942 Jan 31 j 10:24	22° $\text{U}$ 01'09	
evening set	-948 Feb 17 j 21:34	4° $\text{X}$ 43'46			-942 May 14 j 05:42	0° $\text{II}$	
				evening set	-942 May 16 j 21:35	0° $\text{II}$ 20'21	
conjunction	-948 Mar 06 j 06:20	6° $\text{X}$ 56'52	-2°-10'-47				
minimum elong	-948 Mar 06 j 06:18	6° $\text{X}$ 56'51	2°10'48	conjunction	-942 Jun 04 j 02:38	2° $\text{II}$ 42'10	0°-59'-13
max. Earth dist.	-948 Mar 06 j 05:01	6° $\text{X}$ 56'26	10.20046 AU	minimum elong	-942 Jun 04 j 02:41	2° $\text{II}$ 42'11	0°59'14
morning rise	-948 Mar 23 j 20:03	9° $\text{X}$ 11'33		max. Earth dist.	-942 Jun 04 j 13:24	2° $\text{II}$ 45'41	10.00252 AU
retrograde	-948 Jul 09 j 05:15	17° $\text{X}$ 27'48		morning rise	-942 Jun 22 j 07:00	5° $\text{II}$ 03'42	
opposition	-948 Sep 15 j 22:48	13° $\text{X}$ 57'54	-2°-49'-4	retrograde	-942 Oct 04 j 12:47	13° $\text{II}$ 16'40	
min. Earth dist.	-948 Sep 15 j 22:44	13° $\text{X}$ 57'54	8.14739 AU	opposition	-942 Dec 09 j 23:43	9° $\text{II}$ 48'35	0°-53'-57
direct	-948 Nov 21 j 12:04	10° $\text{X}$ 32'40		min. Earth dist.	-942 Dec 09 j 15:19	9° $\text{II}$ 50'19	8.03713 AU
evening set	-947 Mar 03 j 03:43	18° $\text{X}$ 29'29		direct	-941 Feb 15 j 03:48	6° $\text{II}$ 18'56	
				evening set	-941 Jun 01 j 02:06	14° $\text{II}$ 35'05	
conjunction	-947 Mar 20 j 16:42	20° $\text{X}$ 45'19	-2°-18'-40				
minimum elong	-947 Mar 20 j 16:41	20° $\text{X}$ 45'18	2°18'41	conjunction	-941 Jun 19 j 06:42	16° $\text{II}$ 55'30	0°-26'-27
max. Earth dist.	-947 Mar 20 j 18:30	20° $\text{X}$ 45'54	10.09647 AU	minimum elong	-941 Jun 19 j 06:43	16° $\text{II}$ 55'30	0°26'28
morning rise	-947 Apr 07 j 10:07	23° $\text{X}$ 02'37		max. Earth dist.	-941 Jun 19 j 17:41	16° $\text{II}$ 59'03	10.07858 AU
	-947 Jun 13 j 08:10	0° $\text{Y}$		morning rise	-941 Jul 07 j 09:14	19° $\text{II}$ 15'11	
retrograde	-947 Jul 23 j 22:20	1° $\text{Y}$ 26'08		retrograde	-941 Oct 18 j 13:21	27° $\text{II}$ 18'13	
	-947 Sep 02 j 22:50	30° $\text{R}$ $\text{X}$		opposition	-941 Dec 24 j 00:33	23° $\text{II}$ 51'36	0°-12'-9
opposition	-947 Sep 30 j 02:37	27° $\text{X}$ 55'27	-2°-54'-16	min. Earth dist.	-941 Dec 23 j 15:54	23° $\text{II}$ 53'22	8.12559 AU
min. Earth dist.	-947 Sep 30 j 00:04	27° $\text{X}$ 55'59	8.05442 AU	direct	-940 Feb 29 j 18:44	20° $\text{II}$ 22'09	
direct	-947 Dec 05 j 09:01	24° $\text{X}$ 28'59		asc. node	-940 Apr 11 j 16:57	21° $\text{II}$ 53'52	
	-946 Feb 24 j 23:56	0° $\text{Y}$		evening set	-940 Jun 14 j 23:45	28° $\text{II}$ 33'06	
evening set	-946 Mar 17 j 20:13	2° $\text{Y}$ 34'31			-940 Jun 26 j 10:05	0° $\text{U}$	
conjunction	-946 Apr 04 j 13:31	4° $\text{Y}$ 52'51	-2°-18'-28	conjunction	-940 Jul 03 j 02:13	0° $\text{U}$ 51'16	0°07'21
minimum elong	-946 Apr 04 j 13:32	4° $\text{Y}$ 52'51	2°18'29	minimum elong	-940 Jul 03 j 02:12	0° $\text{U}$ 51'15	0°07'22
max. Earth dist.	-946 Apr 04 j 18:07	4° $\text{Y}$ 54'21	10.01537 AU	behind sun begin	-940 Jul 02 j 19:32	0° $\text{U}$ 49'08	
morning rise	-946 Apr 22 j 10:37	7° $\text{Y}$ 12'27		behind sun end	-940 Jul 03 j 08:53	0° $\text{U}$ 53'22	
retrograde	-946 Aug 07 j 19:53	15° $\text{Y}$ 40'25		max. Earth dist.	-940 Jul 03 j 12:44	0° $\text{U}$ 54'37	10.17861 AU
opposition	-946 Oct 14 j 10:44	12° $\text{Y}$ 09'23	-2°-48'-56	morning rise	-940 Jul 21 j 01:19	3° $\text{U}$ 08'20	
min. Earth dist.	-946 Oct 14 j 06:01	12° $\text{Y}$ 10'22	7.98702 AU	retrograde	-940 Oct 31 j 04:39	11° $\text{U}$ 00'34	
direct	-946 Dec 19 j 12:56	8° $\text{Y}$ 41'49		opposition	-939 Jan 05 j 19:24	7° $\text{U}$ 35'31	0°29'20
evening set	-945 Apr 01 j 20:57	16° $\text{Y}$ 54'24		min. Earth dist.	-939 Jan 05 j 11:04	7° $\text{U}$ 37'13	8.23477 AU
				direct	-939 Mar 15 j 04:44	4° $\text{U}$ 06'34	
conjunction	-945 Apr 19 j 18:28	19° $\text{Y}$ 14'46	-2°-9'-46	evening set	-939 Jun 29 j 12:15	12° $\text{U}$ 10'42	
minimum elong	-945 Apr 19 j 18:31	19° $\text{Y}$ 14'47	2°09'47				
max. Earth dist.	-945 Apr 20 j 01:34	19° $\text{Y}$ 17'07	9.96275 AU	conjunction	-939 Jul 17 j 11:01	14° $\text{U}$ 25'59	0°39'54
morning rise	-945 May 07 j 18:55	21° $\text{Y}$ 36'07		minimum elong	-939 Jul 17 j 10:59	14° $\text{U}$ 25'58	0°39'55
	-945 Aug 13 j 02:01	0° $\text{U}$		max. Earth dist.	-939 Jul 17 j 20:31	14° $\text{U}$ 28'59	10.29528 AU
retrograde	-945 Aug 22 j 18:11	0° $\text{U}$ 05'13		morning rise	-939 Aug 04 j 05:26	16° $\text{U}$ 39'55	
	-945 Sep 01 j 08:56	30° $\text{R}$ $\text{Y}$		retrograde	-939 Nov 13 j 11:13	24° $\text{U}$ 21'23	
opposition	-945 Oct 28 j 21:20	26° $\text{Y}$ 34'18	-2°-32'-55	opposition	-938 Jan 19 j 07:40	20° $\text{U}$ 57'58	1°08'03
min. Earth dist.	-945 Oct 28 j 14:58	26° $\text{Y}$ 35'38	7.94998 AU	min. Earth dist.	-938 Jan 19 j 00:47	20° $\text{U}$ 59'20	8.35696 AU
direct	-944 Jan 03 j 00:23	23° $\text{Y}$ 05'48		direct	-938 Mar 29 j 07:39	17° $\text{U}$ 29'44	
	-944 Apr 05 j 05:14	0° $\text{U}$		evening set	-938 Jul 13 j 14:18	25° $\text{U}$ 26'09	
evening set	-944 Apr 16 j 03:39	1° $\text{U}$ 23'15					
conjunction	-944 May 04 j 04:52	3° $\text{U}$ 45'00	-1°-52'-50	conjunction	-938 Jul 31 j 08:18	27° $\text{U}$ 38'14	1°09'35
minimum elong	-944 May 04 j 04:55	3° $\text{U}$ 45'01	1°52'51	minimum elong	-938 Jul 31 j 08:15	27° $\text{U}$ 38'14	1°09'36
max. Earth dist.	-944 May 04 j 13:48	3° $\text{U}$ 47'56	9.94246 AU	max. Earth dist.	-938 Jul 31 j 15:45	27° $\text{U}$ 40'34	10.42091 AU
morning rise	-944 May 22 j 07:57	6° $\text{U}$ 07'21		morning rise	-938 Aug 17 j 21:22	29° $\text{U}$ 48'50	
retrograde	-944 Sep 05 j 13:41	14° $\text{U}$ 34'03			-938 Aug 19 j 10:01	0° $\text{U}$	
opposition	-944 Nov 11 j 08:15	11° $\text{U}$ 03'43	-2°-7'-4	retrograde	-938 Nov 26 j 10:08	7° $\text{U}$ 20'10	
min. Earth dist.	-944 Nov 11 j 01:02	11° $\text{U}$ 05'13	7.94611 AU	opposition	-937 Feb 01 j 13:14	3° $\text{U}$ 58'20	1°42'05
direct	-943 Jan 16 j 16:18	7° $\text{U}$ 34'32		min. Earth dist.	-937 Feb 01 j 08:31	3° $\text{U}$ 59'16	8.48493 AU
	-943 Apr 24 j 10:44	15° $\text{U}$		direct	-937 Apr 12 j 02:16	0° $\text{U}$ 31'05	
				evening set	-937 Jul 27 j 05:20	8° $\text{U}$ 19'20	



# Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 39

Attention, astronomical year style is used: The year -937 in astronomical counting style is the year 938 BCE in historical counting style.

conjunction	-937 Aug 13 j 17:59	10° $\Omega$ 28'10	1°35'00	conjunction	-931 Oct 22 j 23:26	21° $\underline{\Omega}$ 10'28	2°09'58
minimum elong	-937 Aug 13 j 17:56	10° $\Omega$ 28'09	1°35'01	minimum elong	-931 Oct 22 j 23:27	21° $\underline{\Omega}$ 10'29	2°09'58
max. Earth dist.	-937 Aug 13 j 22:37	10° $\Omega$ 29'35	10.54902 AU	max. Earth dist.	-931 Oct 22 j 17:06	21° $\underline{\Omega}$ 08'37	11.09694 AU
morning rise	-937 Aug 31 j 01:35	12° $\Omega$ 35'26		morning rise	-931 Nov 08 j 10:32	23° $\underline{\Omega}$ 05'32	
	-937 Sep 20 j 20:09	15° $\Omega$		retrograde	-930 Feb 16 j 00:16	29° $\underline{\Omega}$ 59'49	
retrograde	-937 Dec 08 j 23:32	19° $\Omega$ 57'35		opposition	-930 Apr 27 j 05:11	26° $\underline{\Omega}$ 42'54	2°31'15
opposition	-936 Feb 14 j 12:31	16° $\Omega$ 37'13	2°10'05	min. Earth dist.	-930 Apr 27 j 10:36	26° $\underline{\Omega}$ 41'54	9.11258 AU
min. Earth dist.	-936 Feb 14 j 09:47	16° $\Omega$ 37'45	8.61269 AU	direct	-930 Jul 07 j 16:38	23° $\underline{\Omega}$ 23'06	
	-936 Mar 07 j 05:10	15° $\mathbb{R}\Omega$			-930 Oct 14 j 01:36	0° $\mathbb{M}$	
direct	-936 Apr 24 j 14:49	13° $\Omega$ 11'03		evening set	-930 Oct 17 j 16:00	0° $\mathbb{M}$ 24'36	
	-936 Jun 11 j 06:06	15° $\Omega$					
evening set	-936 Aug 08 j 09:23	20° $\Omega$ 51'02		conjunction	-930 Nov 03 j 04:24	2° $\mathbb{M}$ 19'47	1°56'49
				minimum elong	-930 Nov 03 j 04:26	2° $\mathbb{M}$ 19'48	1°56'48
conjunction	-936 Aug 25 j 16:33	22° $\Omega$ 56'40	1°55'14	max. Earth dist.	-930 Nov 02 j 21:41	2° $\mathbb{M}$ 17'50	11.11896 AU
minimum elong	-936 Aug 25 j 16:30	22° $\Omega$ 56'39	1°55'15	morning rise	-930 Nov 19 j 15:10	4° $\mathbb{M}$ 14'35	
max. Earth dist.	-936 Aug 25 j 18:27	22° $\Omega$ 57'15	10.67416 AU	retrograde	-929 Feb 27 j 16:11	11° $\mathbb{M}$ 09'23	
morning rise	-936 Sep 11 j 18:51	25° $\Omega$ 00'49		opposition	-929 May 09 j 03:37	7° $\mathbb{M}$ 52'11	2°12'24
	-936 Oct 29 j 13:48	0° $\mathbb{M}$		min. Earth dist.	-929 May 09 j 09:42	7° $\mathbb{M}$ 51'04	9.12207 AU
retrograde	-936 Dec 20 j 05:23	2° $\mathbb{M}$ 14'56		direct	-929 Jul 19 j 11:15	4° $\mathbb{M}$ 33'03	
	-935 Feb 12 j 01:38	30° $\mathbb{R}\Omega$		evening set	-929 Oct 28 j 19:50	11° $\mathbb{M}$ 31'59	
opposition	-935 Feb 26 j 05:50	28° $\Omega$ 55'48	2°31'15				
min. Earth dist.	-935 Feb 26 j 04:22	28° $\Omega$ 56'04	8.73495 AU	conjunction	-929 Nov 14 j 07:57	13° $\mathbb{M}$ 27'11	1°39'15
direct	-935 May 07 j 20:46	25° $\Omega$ 30'49		minimum elong	-929 Nov 14 j 07:59	13° $\mathbb{M}$ 27'12	1°39'14
	-935 Jul 24 j 19:48	0° $\mathbb{M}$		max. Earth dist.	-929 Nov 14 j 00:08	13° $\mathbb{M}$ 24'54	11.11654 AU
evening set	-935 Aug 21 j 02:43	3° $\mathbb{M}$ 02'36			-929 Nov 27 j 14:02	15° $\mathbb{M}$	
				morning rise	-929 Nov 30 j 19:18	15° $\mathbb{M}$ 22'15	
conjunction	-935 Sep 07 j 04:51	5° $\mathbb{M}$ 05'20	2°09'47	retrograde	-928 Mar 10 j 08:25	22° $\mathbb{M}$ 19'09	
minimum elong	-935 Sep 07 j 04:48	5° $\mathbb{M}$ 05'19	2°09'48	opposition	-928 May 20 j 02:51	19° $\mathbb{M}$ 01'26	1°48'33
max. Earth dist.	-935 Sep 07 j 04:57	5° $\mathbb{M}$ 05'21	10.79132 AU	min. Earth dist.	-928 May 20 j 10:15	19° $\mathbb{M}$ 00'04	9.10700 AU
morning rise	-935 Sep 24 j 02:17	7° $\mathbb{M}$ 06'39		direct	-928 Jul 30 j 03:29	15° $\mathbb{M}$ 42'46	
retrograde	-934 Jan 01 j 07:39	14° $\mathbb{M}$ 14'01		evening set	-928 Nov 07 j 23:16	22° $\mathbb{M}$ 40'37	
opposition	-934 Mar 10 j 17:50	10° $\mathbb{M}$ 55'50	2°45'11				
min. Earth dist.	-934 Mar 10 j 17:24	10° $\mathbb{M}$ 55'54	8.84672 AU	conjunction	-928 Nov 24 j 11:41	24° $\mathbb{M}$ 36'17	1°17'52
direct	-934 May 20 j 17:42	7° $\mathbb{M}$ 32'04		minimum elong	-928 Nov 24 j 11:43	24° $\mathbb{M}$ 36'17	1°17'51
evening set	-934 Sep 02 j 10:01	14° $\mathbb{M}$ 56'00		max. Earth dist.	-928 Nov 24 j 02:30	24° $\mathbb{M}$ 33'35	11.08980 AU
				morning rise	-928 Dec 11 j 00:29	26° $\mathbb{M}$ 32'05	
conjunction	-934 Sep 19 j 07:49	16° $\mathbb{M}$ 56'15	2°18'25		-927 Jan 12 j 13:04	0° $\mathbb{Z}$	
minimum elong	-934 Sep 19 j 07:47	16° $\mathbb{M}$ 56'15	2°18'25	retrograde	-927 Mar 22 j 05:00	3° $\mathbb{Z}$ 32'42	
max. Earth dist.	-934 Sep 19 j 06:52	16° $\mathbb{M}$ 55'58	10.89576 AU	opposition	-927 Jun 01 j 03:42	0° $\mathbb{Z}$ 14'14	1°20'27
morning rise	-934 Oct 06 j 01:08	18° $\mathbb{M}$ 55'14		min. Earth dist.	-927 Jun 01 j 11:45	0° $\mathbb{Z}$ 12'45	9.06787 AU
retrograde	-933 Jan 13 j 03:42	25° $\mathbb{M}$ 57'07			-927 Jun 04 j 09:05	30° $\mathbb{R}\mathbb{M}$	
opposition	-933 Mar 23 j 01:15	22° $\mathbb{M}$ 39'39	2°51'53	direct	-927 Aug 10 j 21:10	26° $\mathbb{M}$ 55'50	
min. Earth dist.	-933 Mar 23 j 02:36	22° $\mathbb{M}$ 39'24	8.94352 AU		-927 Oct 13 j 00:55	0° $\mathbb{Z}$	
direct	-933 Jun 02 j 06:27	19° $\mathbb{M}$ 17'02		evening set	-927 Nov 19 j 04:16	3° $\mathbb{Z}$ 54'06	
evening set	-933 Sep 14 j 08:51	26° $\mathbb{M}$ 33'51					
				conjunction	-927 Dec 05 j 17:45	5° $\mathbb{Z}$ 50'41	0°53'21
conjunction	-933 Oct 01 j 02:56	28° $\mathbb{M}$ 32'03	2°21'10	minimum elong	-927 Dec 05 j 17:47	5° $\mathbb{Z}$ 50'41	0°53'20
minimum elong	-933 Oct 01 j 02:56	28° $\mathbb{M}$ 32'03	2°21'09	max. Earth dist.	-927 Dec 05 j 08:38	5° $\mathbb{Z}$ 47'59	11.03951 AU
max. Earth dist.	-933 Oct 01 j 00:08	28° $\mathbb{M}$ 31'14	10.98340 AU	morning rise	-927 Dec 22 j 08:26	7° $\mathbb{Z}$ 47'39	
	-933 Oct 13 j 12:58	0° $\underline{\Omega}$		retrograde	-926 Apr 03 j 06:01	14° $\mathbb{Z}$ 53'33	
morning rise	-933 Oct 17 j 17:07	0° $\underline{\Omega}$ 29'11		opposition	-926 Jun 13 j 06:59	11° $\mathbb{Z}$ 34'06	0°48'55
retrograde	-932 Jan 24 j 20:26	7° $\underline{\Omega}$ 27'01		min. Earth dist.	-926 Jun 13 j 14:39	11° $\mathbb{Z}$ 32'41	9.00592 AU
opposition	-932 Apr 03 j 04:57	4° $\underline{\Omega}$ 10'02	2°51'31	direct	-926 Aug 22 j 14:42	8° $\mathbb{Z}$ 15'45	
min. Earth dist.	-932 Apr 03 j 08:32	4° $\underline{\Omega}$ 09'22	9.02175 AU	evening set	-926 Nov 30 j 12:39	15° $\mathbb{Z}$ 16'02	
direct	-932 Jun 13 j 14:56	0° $\underline{\Omega}$ 48'27					
evening set	-932 Sep 25 j 00:26	7° $\underline{\Omega}$ 59'03		conjunction	-926 Dec 17 j 03:43	17° $\mathbb{Z}$ 13'55	0°26'26
				minimum elong	-926 Dec 17 j 03:44	17° $\mathbb{Z}$ 13'56	0°26'26
conjunction	-932 Oct 11 j 15:35	9° $\underline{\Omega}$ 55'44	2°18'14	max. Earth dist.	-926 Dec 16 j 19:24	17° $\mathbb{Z}$ 11'27	10.96721 AU
minimum elong	-932 Oct 11 j 15:36	9° $\underline{\Omega}$ 55'44	2°18'13	morning rise	-925 Jan 02 j 20:36	19° $\mathbb{Z}$ 12'26	
max. Earth dist.	-932 Oct 11 j 10:20	9° $\underline{\Omega}$ 54'11	11.05121 AU	retrograde	-925 Apr 15 j 14:28	26° $\mathbb{Z}$ 25'08	
morning rise	-932 Oct 28 j 03:47	11° $\underline{\Omega}$ 51'33		opposition	-925 Jun 25 j 14:10	23° $\mathbb{Z}$ 04'32	0°14'54
retrograde	-931 Feb 04 j 10:28	18° $\underline{\Omega}$ 46'49		min. Earth dist.	-925 Jun 25 j 21:01	23° $\mathbb{Z}$ 03'15	8.92321 AU
opposition	-931 Apr 15 j 05:58	15° $\underline{\Omega}$ 30'00	2°44'29	direct	-925 Sep 03 j 10:41	19° $\mathbb{Z}$ 46'02	
min. Earth dist.	-931 Apr 15 j 10:53	15° $\underline{\Omega}$ 29'06	9.07876 AU	desc. node	-925 Dec 02 j 16:38	25° $\mathbb{Z}$ 44'39	
direct	-931 Jun 25 j 17:21	12° $\underline{\Omega}$ 09'23		evening set	-925 Dec 12 j 02:15	26° $\mathbb{Z}$ 49'52	
evening set	-931 Oct 06 j 10:07	19° $\underline{\Omega}$ 14'49					
				conjunction	-925 Dec 28 j 19:03	28° $\mathbb{Z}$ 49'25	0°-2'-2

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 40

Attention, astronomical year style is used: The year -925 in astronomical counting style is the year 926 BCE in historical counting style.

minimum elong	-925 Dec 28 j 19:04	28° $\overline{\text{A}}$ 49'26	0°02'03	evening set	-918 Feb 25 j 10:59	12° $\text{H}$ 51'30	
behind sun begin	-925 Dec 28 j 12:03	28° $\overline{\text{A}}$ 47'21					
behind sun end	-925 Dec 29 j 02:04	28° $\overline{\text{A}}$ 51'30		conjunction	-918 Mar 14 j 21:47	15° $\text{H}$ 05'51	-2°-16'-6
max. Earth dist.	-925 Dec 28 j 10:43	28° $\overline{\text{A}}$ 46'57	10.87550 AU	minimum elong	-918 Mar 14 j 21:45	15° $\text{H}$ 05'50	2°16'07
	-924 Jan 07 j 14:27	0° $\overline{\text{B}}$		max. Earth dist.	-918 Mar 14 j 21:10	15° $\text{H}$ 05'39	10.16188 AU
morning rise	-924 Jan 14 j 14:36	0° $\overline{\text{B}}$ 49'52		morning rise	-918 Apr 01 j 13:26	17° $\text{H}$ 21'44	
retrograde	-924 Apr 27 j 06:09	8° $\overline{\text{B}}$ 10'43		retrograde	-918 Jul 18 j 02:24	25° $\text{H}$ 41'21	
opposition	-924 Jul 07 j 02:14	4° $\overline{\text{B}}$ 48'51	0°-20'-26	opposition	-918 Sep 24 j 11:02	22° $\text{H}$ 11'40	-2°-53'00
min. Earth dist.	-924 Jul 07 j 08:48	4° $\overline{\text{B}}$ 47'37	8.82289 AU	min. Earth dist.	-918 Sep 24 j 10:10	22° $\text{H}$ 11'51	8.11396 AU
direct	-924 Sep 14 j 08:33	1° $\overline{\text{B}}$ 29'56		direct	-918 Nov 29 j 18:45	18° $\text{H}$ 46'23	
evening set	-924 Dec 22 j 22:53	8° $\overline{\text{B}}$ 38'56		evening set	-917 Mar 11 j 22:31	26° $\text{H}$ 47'20	
conjunction	-923 Jan 08 j 17:47	10° $\overline{\text{B}}$ 40'27	0°-30'-52	conjunction	-917 Mar 29 j 13:34	29° $\text{H}$ 04'17	-2°-19'-25
minimum elong	-923 Jan 08 j 17:46	10° $\overline{\text{B}}$ 40'27	0°30'53	minimum elong	-917 Mar 29 j 13:34	29° $\text{H}$ 04'17	2°19'27
max. Earth dist.	-923 Jan 08 j 09:33	10° $\overline{\text{B}}$ 37'57	10.76793 AU	max. Earth dist.	-917 Mar 29 j 15:09	29° $\text{H}$ 04'48	10.06835 AU
morning rise	-923 Jan 25 j 16:21	12° $\overline{\text{B}}$ 43'06			-917 Apr 05 j 16:40	0° $\text{Y}$	
retrograde	-923 May 10 j 03:30	20° $\overline{\text{B}}$ 13'18		morning rise	-917 Apr 16 j 09:03	1° $\text{Y}$ 22'39	
opposition	-923 Jul 19 j 19:44	16° $\overline{\text{B}}$ 50'03	0°-55'-48	retrograde	-917 Aug 01 j 21:22	9° $\text{Y}$ 48'05	
min. Earth dist.	-923 Jul 20 j 01:58	16° $\overline{\text{B}}$ 48'52	8.70898 AU	opposition	-917 Oct 08 j 17:00	6° $\text{Y}$ 17'48	-2°-52'-16
direct	-923 Sep 26 j 12:58	13° $\overline{\text{B}}$ 30'28		min. Earth dist.	-917 Oct 08 j 14:35	6° $\text{Y}$ 18'18	8.03239 AU
evening set	-922 Jan 04 j 03:59	20° $\overline{\text{B}}$ 46'08		direct	-917 Dec 13 j 20:13	2° $\text{Y}$ 51'14	
				evening set	-916 Mar 25 j 19:11	11° $\text{Y}$ 00'04	
conjunction	-922 Jan 21 j 01:25	22° $\overline{\text{B}}$ 49'53	0°-59'-1	conjunction	-916 Apr 12 j 14:42	13° $\text{Y}$ 19'19	-2°-14'-24
minimum elong	-922 Jan 21 j 01:23	22° $\overline{\text{B}}$ 49'53	0°59'03	minimum elong	-916 Apr 12 j 14:44	13° $\text{Y}$ 19'20	2°14'25
max. Earth dist.	-922 Jan 20 j 18:29	22° $\overline{\text{B}}$ 47'45	10.64875 AU	max. Earth dist.	-916 Apr 12 j 18:59	13° $\text{Y}$ 20'44	9.99990 AU
morning rise	-922 Feb 07 j 03:06	24° $\overline{\text{B}}$ 54'58		morning rise	-916 Apr 30 j 13:46	15° $\text{Y}$ 39'44	
	-922 Mar 27 j 02:43	0° $\approx$		retrograde	-916 Aug 15 j 17:43	24° $\text{Y}$ 07'50	
retrograde	-922 May 23 j 10:36	2° $\approx$ 35'26		opposition	-916 Oct 22 j 02:06	20° $\text{Y}$ 37'18	-2°-40'-51
	-922 Jul 22 j 00:36	30° $\text{R}$ $\overline{\text{B}}$		min. Earth dist.	-916 Oct 21 j 21:50	20° $\text{Y}$ 38'11	7.97841 AU
opposition	-922 Aug 01 j 19:24	29° $\overline{\text{B}}$ 10'43	-1°-29'-36	direct	-916 Dec 27 j 05:47	17° $\text{Y}$ 09'34	
min. Earth dist.	-922 Aug 02 j 00:29	29° $\overline{\text{B}}$ 09'44	8.58605 AU	evening set	-915 Apr 09 j 23:01	25° $\text{Y}$ 24'20	
direct	-922 Oct 08 j 23:54	25° $\overline{\text{B}}$ 50'17					
	-922 Dec 19 j 14:20	0° $\approx$		conjunction	-915 Apr 27 j 22:37	27° $\text{Y}$ 45'19	-2°00'-59
evening set	-921 Jan 16 j 18:55	3° $\approx$ 13'50		minimum elong	-915 Apr 27 j 22:40	27° $\text{Y}$ 45'20	2°00'59
conjunction	-921 Feb 02 j 19:13	5° $\approx$ 20'04	-1°-25'-6	max. Earth dist.	-915 Apr 28 j 05:29	27° $\text{Y}$ 47'35	9.96155 AU
minimum elong	-921 Feb 02 j 19:10	5° $\approx$ 20'03	1°25'08		-915 May 15 j 02:37	0° $\text{B}$	
max. Earth dist.	-921 Feb 02 j 14:30	5° $\approx$ 18'36	10.52286 AU	morning rise	-915 May 16 j 00:36	0° $\text{B}$ 07'05	
morning rise	-921 Feb 20 j 00:01	7° $\approx$ 27'45		retrograde	-915 Aug 30 j 12:43	8° $\text{B}$ 34'24	
	-921 May 17 j 19:36	15° $\approx$		opposition	-915 Nov 05 j 12:19	5° $\text{B}$ 04'03	-2°-19'-12
retrograde	-921 Jun 06 j 03:16	15° $\approx$ 18'54		min. Earth dist.	-915 Nov 05 j 06:13	5° $\text{B}$ 05'19	7.95597 AU
	-921 Jun 25 j 12:55	15° $\text{R}$ $\approx$		direct	-914 Jan 10 j 19:21	1° $\text{B}$ 35'21	
opposition	-921 Aug 15 j 01:37	11° $\approx$ 52'43	-2°00'-7	evening set	-914 Apr 25 j 06:44	9° $\text{B}$ 53'33	
min. Earth dist.	-921 Aug 15 j 04:42	11° $\approx$ 52'07	8.45935 AU				
direct	-921 Oct 21 j 16:25	8° $\approx$ 31'16		conjunction	-914 May 13 j 09:37	12° $\text{B}$ 15'30	-1°-39'-54
	-920 Jan 21 j 03:38	15° $\approx$		minimum elong	-914 May 13 j 09:40	12° $\text{B}$ 15'31	1°39'54
evening set	-920 Jan 29 j 20:50	16° $\approx$ 03'42		max. Earth dist.	-914 May 13 j 18:44	12° $\text{B}$ 18'30	9.95612 AU
				morning rise	-914 May 31 j 13:30	14° $\text{B}$ 37'47	
conjunction	-920 Feb 16 j 00:16	18° $\approx$ 12'33	-1°-47'-38		-914 Jun 03 j 10:48	15° $\text{B}$	
minimum elong	-920 Feb 16 j 00:14	18° $\approx$ 12'33	1°47'40	retrograde	-914 Sep 14 j 05:14	23° $\text{B}$ 01'00	
max. Earth dist.	-920 Feb 15 j 21:20	18° $\approx$ 11'38	10.39588 AU	opposition	-914 Nov 19 j 21:53	19° $\text{B}$ 31'12	-1°-48'-41
morning rise	-920 Mar 04 j 08:27	20° $\approx$ 22'58		min. Earth dist.	-914 Nov 19 j 14:18	19° $\text{B}$ 32'47	7.96671 AU
retrograde	-920 Jun 19 j 03:42	28° $\approx$ 24'39		direct	-913 Jan 25 j 11:18	16° $\text{B}$ 01'47	
opposition	-920 Aug 27 j 14:31	24° $\approx$ 57'04	-2°-25'-26	evening set	-913 May 10 j 15:01	24° $\text{B}$ 20'43	
min. Earth dist.	-920 Aug 27 j 15:52	24° $\approx$ 56'48	8.33451 AU				
direct	-920 Nov 02 j 16:59	21° $\approx$ 34'24		conjunction	-913 May 28 j 19:52	26° $\text{B}$ 42'44	-1°-12'-36
evening set	-919 Feb 11 j 10:10	29° $\approx$ 16'22		minimum elong	-913 May 28 j 19:56	26° $\text{B}$ 42'45	1°12'36
	-919 Feb 17 j 04:51	0° $\text{H}$		max. Earth dist.	-913 May 29 j 06:25	26° $\text{B}$ 46'11	9.98386 AU
				morning rise	-913 Jun 16 j 00:19	29° $\text{B}$ 04'37	
conjunction	-919 Feb 28 j 17:06	1° $\text{H}$ 27'58	-2°-5'-7		-913 Jun 23 j 07:05	0° $\text{II}$	
minimum elong	-919 Feb 28 j 17:03	1° $\text{H}$ 27'57	2°05'08	retrograde	-913 Sep 28 j 16:43	7° $\text{II}$ 20'52	
max. Earth dist.	-919 Feb 28 j 15:19	1° $\text{H}$ 27'23	10.27353 AU	opposition	-913 Dec 04 j 04:49	3° $\text{II}$ 51'59	-1°-11'-35
morning rise	-919 Mar 18 j 04:57	3° $\text{H}$ 41'08		min. Earth dist.	-913 Dec 03 j 20:46	3° $\text{II}$ 53'39	8.00975 AU
retrograde	-919 Jul 03 j 11:49	11° $\text{H}$ 52'32		direct	-912 Feb 09 j 03:36	0° $\text{II}$ 22'08	
opposition	-919 Sep 10 j 09:52	8° $\text{H}$ 23'46	-2°-43'-38	evening set	-912 May 24 j 20:57	8° $\text{II}$ 39'16	
min. Earth dist.	-919 Sep 10 j 10:00	8° $\text{H}$ 23'44	8.21715 AU				
direct	-919 Nov 16 j 01:47	4° $\text{H}$ 59'48		conjunction	-912 Jun 12 j 02:05	11° $\text{II}$ 00'21	0°-41'-4

## Planetary Phenomena of Saturn from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 41

Attention, astronomical year style is used: The year -912 in astronomical counting style is the year 913 BCE in historical counting style.

minimum elong	-912 Jun 12 j 02:07	11° $\Pi$ 00'22	0°41'04	evening set	-906 Aug 15 j 21:16	27° $\Omega$ 54'05	
max. Earth dist.	-912 Jun 12 j 12:48	11° $\Pi$ 03'50	10.04253 AU				
morning rise	-912 Jun 30 j 05:29	13° $\Pi$ 20'52		conjunction	-906 Sep 02 j 01:45	29° $\Omega$ 58'03	2°03'58
retrograde	-912 Oct 11 j 21:07	21° $\Pi$ 28'01		minimum elong	-906 Sep 02 j 01:42	29° $\Omega$ 58'02	2°03'59
opposition	-912 Dec 17 j 07:22	18° $\Pi$ 00'23	0°-30'-38	max. Earth dist.	-906 Sep 02 j 04:30	29° $\Omega$ 58'53	10.73808 AU
min. Earth dist.	-912 Dec 16 j 23:38	18° $\Pi$ 01'58	8.08192 AU		-906 Sep 02 j 08:11	0° $\mathbb{M}$	
direct	-911 Feb 22 j 18:55	14° $\Pi$ 30'25		morning rise	-906 Sep 19 j 01:14	2° $\mathbb{M}$ 00'33	
evening set	-911 Jun 08 j 21:19	22° $\Pi$ 43'30		retrograde	-906 Dec 27 j 08:23	9° $\mathbb{M}$ 10'25	
				opposition	-905 Mar 05 j 14:12	5° $\mathbb{M}$ 51'34	2°39'47
conjunction	-911 Jun 27 j 00:55	25° $\Pi$ 02'44	0°-7'-35	min. Earth dist.	-905 Mar 05 j 13:12	5° $\mathbb{M}$ 51'46	8.79799 AU
minimum elong	-911 Jun 27 j 00:55	25° $\Pi$ 02'44	0°07'35	direct	-905 May 15 j 09:24	2° $\mathbb{M}$ 27'02	
behind sun begin	-911 Jun 26 j 18:17	25° $\Pi$ 00'37		evening set	-905 Aug 28 j 08:42	9° $\mathbb{M}$ 54'04	
behind sun end	-911 Jun 27 j 07:33	25° $\Pi$ 04'51					
max. Earth dist.	-911 Jun 27 j 10:54	25° $\Pi$ 05'56	10.12788 AU	conjunction	-905 Sep 14 j 08:18	11° $\mathbb{M}$ 55'19	2°15'13
morning rise	-911 Jul 15 j 01:40	27° $\Pi$ 21'01		minimum elong	-905 Sep 14 j 08:17	11° $\mathbb{M}$ 55'18	2°15'13
	-911 Aug 05 j 23:27	0° $\mathfrak{S}$		max. Earth dist.	-905 Sep 14 j 08:10	11° $\mathbb{M}$ 55'16	10.85249 AU
asc. node	-911 Sep 20 j 02:32	4° $\mathfrak{S}$ 08'44		morning rise	-905 Oct 01 j 03:29	13° $\mathbb{M}$ 55'15	
retrograde	-911 Oct 25 j 15:41	5° $\mathfrak{S}$ 17'52		retrograde	-904 Jan 08 j 05:08	20° $\mathbb{M}$ 59'01	
opposition	-911 Dec 31 j 04:34	1° $\mathfrak{S}$ 51'41	0°11'13	opposition	-904 Mar 16 j 23:09	17° $\mathbb{M}$ 41'12	2°49'40
min. Earth dist.	-911 Dec 30 j 21:28	1° $\mathfrak{S}$ 53'08	8.17832 AU	min. Earth dist.	-904 Mar 16 j 23:38	17° $\mathbb{M}$ 41'07	8.90583 AU
	-910 Jan 24 j 06:46	30° $\mathbb{R}$ $\Pi$		direct	-904 May 27 j 02:14	14° $\mathbb{M}$ 18'02	
direct	-910 Mar 09 j 07:26	28° $\Pi$ 21'58		evening set	-904 Sep 08 j 10:55	21° $\mathbb{M}$ 37'39	
	-910 Apr 21 j 22:50	0° $\mathfrak{S}$					
evening set	-910 Jun 23 j 13:23	6° $\mathfrak{S}$ 29'07		conjunction	-904 Sep 25 j 06:27	23° $\mathbb{M}$ 36'37	2°20'33
				minimum elong	-904 Sep 25 j 06:26	23° $\mathbb{M}$ 36'37	2°20'33
conjunction	-910 Jul 11 j 13:52	8° $\mathfrak{S}$ 45'45	0°25'45	max. Earth dist.	-904 Sep 25 j 04:34	23° $\mathbb{M}$ 36'03	10.95192 AU
minimum elong	-910 Jul 11 j 13:51	8° $\mathfrak{S}$ 45'45	0°25'46	morning rise	-904 Oct 11 j 22:04	25° $\mathbb{M}$ 34'27	
max. Earth dist.	-910 Jul 11 j 22:34	8° $\mathfrak{S}$ 48'31	10.23425 AU		-904 Nov 23 j 15:13	0° $\mathfrak{A}$	
morning rise	-910 Jul 29 j 10:39	11° $\mathfrak{S}$ 01'11		retrograde	-903 Jan 19 j 00:05	2° $\mathfrak{A}$ 33'36	
retrograde	-910 Nov 08 j 00:34	18° $\mathfrak{S}$ 47'22			-903 Mar 19 j 09:29	30° $\mathbb{R}$ $\mathbb{M}$	
opposition	-909 Jan 13 j 19:22	15° $\mathfrak{S}$ 22'43	0°51'23	opposition	-903 Mar 29 j 04:09	29° $\mathbb{M}$ 16'33	2°52'23
min. Earth dist.	-909 Jan 13 j 12:52	15° $\mathfrak{S}$ 24'02	8.29281 AU	min. Earth dist.	-903 Mar 29 j 05:35	29° $\mathbb{M}$ 16'16	8.99652 AU
direct	-909 Mar 23 j 13:48	11° $\mathfrak{S}$ 53'34		direct	-903 Jun 08 j 13:35	25° $\mathbb{M}$ 54'42	
evening set	-909 Jul 07 j 19:46	19° $\mathfrak{S}$ 53'28			-903 Aug 22 j 08:25	0° $\mathfrak{A}$	
				evening set	-903 Sep 20 j 05:22	3° $\mathfrak{A}$ 07'41	
conjunction	-909 Jul 25 j 15:58	22° $\mathfrak{S}$ 07'03	0°56'52				
minimum elong	-909 Jul 25 j 15:55	22° $\mathfrak{S}$ 07'02	0°56'53	conjunction	-903 Oct 06 j 21:49	5° $\mathfrak{A}$ 04'54	2°20'07
max. Earth dist.	-909 Jul 25 j 23:09	22° $\mathfrak{S}$ 09'18	10.35511 AU	minimum elong	-903 Oct 06 j 21:50	5° $\mathfrak{A}$ 04'54	2°20'07
morning rise	-909 Aug 12 j 07:45	24° $\mathfrak{S}$ 19'13		max. Earth dist.	-903 Oct 06 j 19:00	5° $\mathfrak{A}$ 04'04	11.03262 AU
	-909 Oct 05 j 09:05	0° $\Omega$		morning rise	-903 Oct 23 j 10:45	7° $\mathfrak{A}$ 01'08	
retrograde	-909 Nov 21 j 01:46	1° $\Omega$ 54'57		retrograde	-902 Jan 30 j 16:10	13° $\mathfrak{A}$ 57'05	
	-908 Jan 08 j 01:30	30° $\mathbb{R}$ $\mathfrak{S}$		opposition	-902 Apr 10 j 06:01	10° $\mathfrak{A}$ 40'31	2°48'15
opposition	-908 Jan 27 j 03:22	28° $\mathfrak{S}$ 31'51	1°27'39	min. Earth dist.	-902 Apr 10 j 08:51	10° $\mathfrak{A}$ 40'00	9.06678 AU
min. Earth dist.	-908 Jan 26 j 21:20	28° $\mathfrak{S}$ 33'03	8.41858 AU	direct	-902 Jun 20 j 16:42	7° $\mathfrak{A}$ 19'53	
direct	-908 Apr 05 j 12:29	25° $\mathfrak{S}$ 03'35		evening set	-902 Oct 01 j 17:32	14° $\mathfrak{A}$ 27'13	
	-908 Jun 25 j 08:28	0° $\Omega$					
evening set	-908 Jul 20 j 15:23	2° $\Omega$ 55'25		conjunction	-902 Oct 18 j 07:42	16° $\mathfrak{A}$ 23'11	2°14'11
				minimum elong	-902 Oct 18 j 07:43	16° $\mathfrak{A}$ 23'12	2°14'11
conjunction	-908 Aug 07 j 06:33	5° $\Omega$ 05'44	1°24'17	max. Earth dist.	-902 Oct 18 j 03:16	16° $\mathfrak{A}$ 21'53	11.09164 AU
minimum elong	-908 Aug 07 j 06:30	5° $\Omega$ 05'43	1°24'17	morning rise	-902 Nov 03 j 19:02	18° $\mathfrak{A}$ 18'25	
max. Earth dist.	-908 Aug 07 j 12:38	5° $\Omega$ 07'37	10.48367 AU	retrograde	-901 Feb 11 j 06:13	25° $\mathfrak{A}$ 12'38	
morning rise	-908 Aug 24 j 16:45	7° $\Omega$ 14'31		opposition	-901 Apr 22 j 05:53	21° $\mathfrak{A}$ 56'17	2°37'43
retrograde	-908 Dec 02 j 19:20	14° $\Omega$ 40'31		min. Earth dist.	-901 Apr 22 j 10:52	21° $\mathfrak{A}$ 55'22	9.11400 AU
opposition	-907 Feb 08 j 05:00	11° $\Omega$ 18'57	1°58'25	direct	-901 Jul 02 j 16:20	18° $\mathfrak{A}$ 36'39	
min. Earth dist.	-907 Feb 07 j 23:58	11° $\Omega$ 19'56	8.54887 AU	evening set	-901 Oct 13 j 01:11	25° $\mathfrak{A}$ 39'31	
direct	-907 Apr 19 j 03:08	7° $\Omega$ 51'48					
	-907 Jul 29 j 01:26	15° $\Omega$		conjunction	-901 Oct 29 j 13:46	27° $\mathfrak{A}$ 34'45	2°03'09
evening set	-907 Aug 02 j 23:42	15° $\Omega$ 35'12		minimum elong	-901 Oct 29 j 13:48	27° $\mathfrak{A}$ 34'46	2°03'09
				max. Earth dist.	-901 Oct 29 j 06:58	27° $\mathfrak{A}$ 32'46	11.12679 AU
conjunction	-907 Aug 20 j 09:30	17° $\Omega$ 42'14	1°46'52	morning rise	-901 Nov 15 j 00:35	29° $\mathfrak{A}$ 29'29	
minimum elong	-907 Aug 20 j 09:27	17° $\Omega$ 42'13	1°46'53		-901 Nov 19 j 11:50	0° $\mathbb{M}$	
max. Earth dist.	-907 Aug 20 j 14:20	17° $\Omega$ 43'43	10.61334 AU	retrograde	-900 Feb 22 j 20:10	6° $\mathbb{M}$ 23'31	
morning rise	-907 Sep 06 j 14:05	19° $\Omega$ 47'44		opposition	-900 May 03 j 04:42	3° $\mathbb{M}$ 07'04	2°21'18
retrograde	-907 Dec 15 j 05:03	27° $\Omega$ 05'04		min. Earth dist.	-900 May 03 j 11:15	3° $\mathbb{M}$ 05'52	9.13634 AU
opposition	-906 Feb 21 j 00:28	23° $\Omega$ 44'56	2°22'39		-900 Jun 27 j 19:15	30° $\mathbb{R}$ $\mathfrak{A}$	
min. Earth dist.	-906 Feb 20 j 21:12	23° $\Omega$ 45'34	8.67727 AU	direct	-900 Jul 13 j 12:58	29° $\mathfrak{A}$ 48'13	
direct	-906 May 02 j 10:23	20° $\Omega$ 19'03			-900 Jul 29 j 04:37	0° $\mathbb{M}$	

Attention, astronomical year style is used: The year -900 in astronomical counting style is the year 901 BCE in historical counting style.

evening set	-900 Oct 23 j 05:48	6° $\mathbb{M}$ 47'54	
conjunction	-900 Nov 08 j 17:49	8° $\mathbb{M}$ 42'54	1°47'30
minimum elong	-900 Nov 08 j 17:51	8° $\mathbb{M}$ 42'55	1°47'30
max. Earth dist.	-900 Nov 08 j 09:41	8° $\mathbb{M}$ 40'31	11.13651 AU
morning rise	-900 Nov 25 j 04:52	10° $\mathbb{M}$ 37'40	

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 1

Attention, astronomical year style is used: The year -900 in astronomical counting style is the year 901 BCE in historical counting style.

retrograde	-900 Feb 22 j 20:10	6°♄23'31			-895 Nov 14 j 23:59	0°♄	
opposition	-900 May 03 j 04:42	3°♄07'04	2°21'18	evening set	-895 Dec 18 j 00:58	3°♄36'30	
min. Earth dist.	-900 May 03 j 11:15	3°♄05'52	9.13634 AU				
	-900 Jun 27 j 19:15	30°♄		conjunction	-894 Jan 03 j 19:02	5°♄37'09	0°-18'00
direct	-900 Jul 13 j 12:58	29°♄48'13		minimum elong	-894 Jan 03 j 19:02	5°♄37'08	0°18'01
	-900 Jul 29 j 04:37	0°♄		max. Earth dist.	-894 Jan 03 j 09:56	5°♄34'24	10.81473 AU
evening set	-900 Oct 23 j 05:48	6°♄47'54		morning rise	-894 Jan 20 j 16:09	7°♄38'48	
				retrograde	-894 May 04 j 17:41	15°♄04'53	
conjunction	-900 Nov 08 j 17:49	8°♄42'54	1°47'30	opposition	-894 Jul 14 j 12:08	11°♄42'09	0°-40'-5
minimum elong	-900 Nov 08 j 17:51	8°♄42'55	1°47'30	min. Earth dist.	-894 Jul 14 j 19:18	11°♄40'48	8.75553 AU
max. Earth dist.	-900 Nov 08 j 09:41	8°♄40'31	11.13651 AU	direct	-894 Sep 21 j 12:29	8°♄22'43	
morning rise	-900 Nov 25 j 04:52	10°♄37'40		evening set	-894 Dec 30 j 02:12	15°♄35'30	
	-899 Jan 07 j 02:29	15°♄					
retrograde	-899 Mar 05 j 11:36	17°♄33'07		conjunction	-893 Jan 15 j 22:34	17°♄38'20	0°-46'-37
	-899 May 05 j 02:14	15°♄		minimum elong	-893 Jan 15 j 22:32	17°♄38'19	0°46'38
opposition	-899 May 15 j 03:28	14°♄16'14	1°59'38	max. Earth dist.	-893 Jan 15 j 14:20	17°♄35'49	10.69468 AU
min. Earth dist.	-899 May 15 j 10:34	14°♄14'56	9.13251 AU	morning rise	-893 Feb 01 j 22:41	19°♄42'22	
direct	-899 Jul 25 j 07:38	10°♄57'57		retrograde	-893 May 17 j 21:55	27°♄18'29	
	-899 Oct 07 j 05:14	15°♄		opposition	-893 Jul 27 j 09:08	23°♄54'05	-1°-14'-49
evening set	-899 Nov 03 j 09:10	17°♄55'52		min. Earth dist.	-893 Jul 27 j 15:03	23°♄52'57	8.63068 AU
				direct	-893 Oct 03 j 19:42	20°♄33'41	
conjunction	-899 Nov 19 j 21:27	19°♄51'10	1°27'47	evening set	-892 Jan 11 j 12:35	27°♄53'56	
minimum elong	-899 Nov 19 j 21:29	19°♄51'11	1°27'45				
max. Earth dist.	-899 Nov 19 j 13:00	19°♄48'41	11.11974 AU	conjunction	-892 Jan 28 j 11:29	29°♄59'11	-1°-13'-48
morning rise	-899 Dec 06 j 09:24	21°♄46'27		minimum elong	-892 Jan 28 j 11:27	29°♄59'10	1°13'50
retrograde	-898 Mar 17 j 08:25	28°♄44'58		max. Earth dist.	-892 Jan 28 j 03:55	29°♄56'50	10.56608 AU
opposition	-898 May 27 j 03:23	25°♄27'25	1°33'23		-892 Jan 28 j 14:09	0°≈	
min. Earth dist.	-898 May 27 j 11:05	25°♄26'00	9.10200 AU	morning rise	-892 Feb 14 j 14:55	2°≈05'50	
direct	-898 Aug 06 j 00:59	22°♄09'27		retrograde	-892 May 30 j 10:12	9°≈52'38	
evening set	-898 Nov 14 j 13:31	29°♄07'12		opposition	-892 Aug 08 j 12:42	6°≈26'37	-1°-47'-4
	-898 Nov 22 j 03:15	0°♄		min. Earth dist.	-892 Aug 08 j 17:44	6°≈25'38	8.50023 AU
				direct	-892 Oct 15 j 08:57	3°≈05'04	
conjunction	-898 Dec 01 j 02:29	1°♄03'15	1°04'36	evening set	-891 Jan 23 j 09:34	10°≈34'00	
minimum elong	-898 Dec 01 j 02:31	1°♄03'15	1°04'34				
max. Earth dist.	-898 Nov 30 j 16:45	1°♄00'23	11.07674 AU	conjunction	-891 Feb 09 j 11:29	12°≈41'51	-1°-38'-7
morning rise	-898 Dec 17 j 16:04	2°♄59'33		minimum elong	-891 Feb 09 j 11:27	12°≈41'50	1°38'09
retrograde	-897 Mar 29 j 06:48	10°♄02'44		max. Earth dist.	-891 Feb 09 j 05:42	12°≈40'02	10.43463 AU
opposition	-897 Jun 08 j 05:34	6°♄44'15	1°03'18	morning rise	-891 Feb 26 j 18:22	14°≈51'15	
min. Earth dist.	-897 Jun 08 j 14:18	6°♄42'38	9.04611 AU		-891 Feb 27 j 22:52	15°≈	
direct	-897 Aug 17 j 16:10	3°♄26'20		retrograde	-891 Jun 13 j 05:56	22°≈48'54	
evening set	-897 Nov 25 j 20:28	10°♄25'31		opposition	-891 Aug 21 j 22:49	19°≈21'19	-2°-14'-59
				min. Earth dist.	-891 Aug 22 j 02:27	19°≈20'36	8.37017 AU
conjunction	-897 Dec 12 j 10:36	12°♄22'43	0°38'40	direct	-891 Oct 28 j 07:03	15°≈58'31	
minimum elong	-897 Dec 12 j 10:37	12°♄22'44	0°38'39	evening set	-890 Feb 05 j 17:53	23°≈36'58	
max. Earth dist.	-897 Dec 11 j 23:41	12°♄19'29	11.00959 AU				
morning rise	-897 Dec 29 j 02:27	14°♄20'27		conjunction	-890 Feb 22 j 23:17	25°≈47'34	-1°-58'-4
retrograde	-896 Apr 09 j 11:08	21°♄29'54		minimum elong	-890 Feb 22 j 23:14	25°≈47'33	1°58'06
opposition	-896 Jun 19 j 11:19	18°♄10'12	0°30'18	max. Earth dist.	-890 Feb 22 j 20:05	25°≈46'33	10.30658 AU
min. Earth dist.	-896 Jun 19 j 20:36	18°♄08'29	8.96751 AU	morning rise	-890 Mar 12 j 09:37	27°≈59'45	
direct	-896 Aug 28 j 12:30	14°♄52'01			-890 Mar 28 j 22:29	0°✠	
evening set	-896 Dec 06 j 07:35	21°♄54'11		retrograde	-890 Jun 27 j 10:19	6°✠07'45	
				opposition	-890 Sep 04 j 15:41	2°✠38'49	-2°-36'-38
conjunction	-896 Dec 22 j 23:30	23°♄52'57	0°10'51	min. Earth dist.	-890 Sep 04 j 17:10	2°✠38'31	8.24692 AU
minimum elong	-896 Dec 22 j 23:30	23°♄52'57	0°10'50		-890 Oct 12 j 13:17	30°♄≈	
behind sun begin	-896 Dec 22 j 18:08	23°♄51'22		direct	-890 Nov 10 j 13:22	29°≈14'44	
behind sun end	-896 Dec 23 j 04:53	23°♄54'32			-890 Dec 09 j 02:49	0°✠	
max. Earth dist.	-896 Dec 22 j 13:08	23°♄49'51	10.92113 AU	evening set	-889 Feb 19 j 13:41	7°✠02'55	
morning rise	-895 Jan 08 j 17:54	25°♄52'30					
	-895 Feb 16 j 13:01	0°♄		conjunction	-889 Mar 08 j 22:54	9°✠16'18	-2°-12'-8
retrograde	-895 Apr 21 j 23:03	3°♄09'38		minimum elong	-889 Mar 08 j 22:52	9°✠16'18	2°12'09
desc. node	-895 May 14 j 01:27	2°♄46'16		max. Earth dist.	-889 Mar 08 j 22:47	9°✠16'16	10.18870 AU
	-895 Jun 29 j 07:35	30°♄		morning rise	-889 Mar 26 j 12:51	11°✠31'15	
opposition	-895 Jul 01 j 21:15	29°♄48'29	0°-4'-34	retrograde	-889 Jul 11 j 22:58	19°✠48'20	
min. Earth dist.	-895 Jul 02 j 05:45	29°♄46'54	8.86937 AU	opposition	-889 Sep 18 j 14:48	16°✠18'17	-2°-50'-10
direct	-895 Sep 09 j 10:44	26°♄29'48		min. Earth dist.	-889 Sep 18 j 13:43	16°✠18'30	8.13722 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), AstroDienst AG 7-Dez-2017 14:46, page 2

Attention, astronomical year style is used: The year -889 in astronomical counting style is the year 890 BCE in historical counting style.

direct	-889 Nov 24 j 02:44	12° <del>✕</del> 52'54		max. Earth dist.	-883 Jun 06 j 06:52	5° <del>Π</del> 05'01	10.01194 AU
evening set	-888 Mar 04 j 20:52	20° <del>✕</del> 50'33		morning rise	-883 Jun 24 j 00:04	7° <del>Π</del> 22'44	
				retrograde	-883 Oct 06 j 03:00	15° <del>Π</del> 34'28	
conjunction	-888 Mar 22 j 10:13	23° <del>✕</del> 06'37	-2°-18'-59	opposition	-883 Dec 11 j 14:02	12° <del>Π</del> 06'30	0°-48'-46
minimum elong	-888 Mar 22 j 10:13	23° <del>✕</del> 06'37	2°19'01	min. Earth dist.	-883 Dec 11 j 05:08	12° <del>Π</del> 08'21	8.04775 AU
max. Earth dist.	-888 Mar 22 j 12:46	23° <del>✕</del> 07'27	10.08787 AU	direct	-882 Feb 16 j 20:07	8° <del>Π</del> 36'53	
morning rise	-888 Apr 09 j 03:57	25° <del>✕</del> 24'09		evening set	-882 Jun 02 j 18:18	16° <del>Π</del> 52'17	
	-888 May 18 j 13:19	0° <del>Υ</del>					
retrograde	-888 Jul 25 j 17:02	3° <del>Υ</del> 48'07		conjunction	-882 Jun 20 j 22:49	19° <del>Π</del> 12'27	0°-22'-15
opposition	-888 Oct 01 j 19:05	0° <del>Υ</del> 17'20	-2°-54'-1	minimum elong	-882 Jun 20 j 22:50	19° <del>Π</del> 12'28	0°22'15
min. Earth dist.	-888 Oct 01 j 15:49	0° <del>Υ</del> 18'00	8.04767 AU	max. Earth dist.	-882 Jun 21 j 10:24	19° <del>Π</del> 16'12	10.09040 AU
	-888 Oct 05 j 07:36	30° <del>℞</del>		morning rise	-882 Jul 09 j 00:59	21° <del>Π</del> 31'51	
direct	-888 Dec 07 j 00:17	26° <del>✕</del> 50'43		retrograde	-882 Oct 20 j 02:16	29° <del>Π</del> 33'38	
	-887 Feb 04 j 19:57	0° <del>Υ</del>		opposition	-882 Dec 25 j 14:07	26° <del>Π</del> 07'10	0°-6'-54
evening set	-887 Mar 19 j 14:07	4° <del>Υ</del> 56'51		min. Earth dist.	-882 Dec 25 j 05:02	26° <del>Π</del> 09'02	8.13837 AU
				asc. node	-881 Feb 26 j 03:12	22° <del>Π</del> 39'19	
conjunction	-887 Apr 06 j 07:47	7° <del>Υ</del> 15'21	-2°-17'-42	direct	-881 Mar 03 j 10:03	22° <del>Π</del> 37'49	
minimum elong	-887 Apr 06 j 07:48	7° <del>Υ</del> 15'21	2°17'44		-881 Jun 11 j 04:27	0° <del>☿</del>	
max. Earth dist.	-887 Apr 06 j 12:30	7° <del>Υ</del> 16'54	10.01047 AU	evening set	-881 Jun 17 j 14:48	0° <del>☿</del> 47'53	
morning rise	-887 Apr 24 j 05:15	9° <del>Υ</del> 35'06					
retrograde	-887 Aug 09 j 14:01	18° <del>Υ</del> 03'04		conjunction	-881 Jul 05 j 16:59	3° <del>☿</del> 05'44	0°11'28
opposition	-887 Oct 16 j 03:20	14° <del>Υ</del> 31'59	-2°-47'-19	minimum elong	-881 Jul 05 j 16:58	3° <del>☿</del> 05'44	0°11'30
min. Earth dist.	-887 Oct 15 j 22:31	14° <del>Υ</del> 32'59	7.98405 AU	behind sun begin	-881 Jul 05 j 11:47	3° <del>☿</del> 04'05	
direct	-887 Dec 21 j 05:56	11° <del>Υ</del> 04'16		behind sun end	-881 Jul 05 j 22:10	3° <del>☿</del> 07'22	
evening set	-886 Apr 03 j 15:20	19° <del>Υ</del> 17'11		max. Earth dist.	-881 Jul 06 j 04:12	3° <del>☿</del> 09'18	10.19234 AU
				morning rise	-881 Jul 23 j 15:36	5° <del>☿</del> 22'27	
conjunction	-886 Apr 21 j 13:07	21° <del>Υ</del> 37'39	-2°-7'-56	retrograde	-881 Nov 02 j 17:07	13° <del>☿</del> 13'28	
minimum elong	-886 Apr 21 j 13:10	21° <del>Υ</del> 37'39	2°07'57	opposition	-880 Jan 08 j 08:09	9° <del>☿</del> 48'37	0°34'18
max. Earth dist.	-886 Apr 21 j 19:54	21° <del>Υ</del> 39'52	9.96173 AU	min. Earth dist.	-880 Jan 07 j 23:53	9° <del>☿</del> 50'18	8.24934 AU
morning rise	-886 May 09 j 13:55	23° <del>Υ</del> 59'04		direct	-880 Mar 16 j 18:08	6° <del>☿</del> 19'46	
	-886 Jul 02 j 06:23	0° <del>♄</del>		evening set	-880 Jul 01 j 02:14	14° <del>☿</del> 22'56	
retrograde	-886 Aug 24 j 10:46	2° <del>♄</del> 27'43					
	-886 Oct 17 j 17:15	30° <del>℞</del> <del>Υ</del>		conjunction	-880 Jul 19 j 00:32	16° <del>☿</del> 37'52	0°43'44
opposition	-886 Oct 30 j 13:44	28° <del>Υ</del> 56'49	-2°-30'00	minimum elong	-880 Jul 19 j 00:30	16° <del>☿</del> 37'51	0°43'46
min. Earth dist.	-886 Oct 30 j 07:39	28° <del>Υ</del> 58'05	7.95085 AU	max. Earth dist.	-880 Jul 19 j 10:13	16° <del>☿</del> 40'55	10.31069 AU
direct	-885 Jan 04 j 17:37	25° <del>Υ</del> 28'12		morning rise	-880 Aug 05 j 18:25	18° <del>☿</del> 51'25	
	-885 Mar 18 j 20:50	0° <del>♄</del>		retrograde	-880 Nov 14 j 23:10	26° <del>☿</del> 31'38	
evening set	-885 Apr 18 j 21:55	3° <del>♄</del> 45'37		opposition	-879 Jan 20 j 19:31	23° <del>☿</del> 08'24	1°12'30
				min. Earth dist.	-879 Jan 20 j 13:11	23° <del>☿</del> 09'40	8.37316 AU
conjunction	-885 May 06 j 23:21	6° <del>♄</del> 07'23	-1°-50'-3	direct	-879 Mar 30 j 19:57	19° <del>☿</del> 40'18	
minimum elong	-885 May 06 j 23:25	6° <del>♄</del> 07'24	1°50'04	evening set	-879 Jul 15 j 03:02	27° <del>☿</del> 35'37	
max. Earth dist.	-885 May 07 j 07:55	6° <del>♄</del> 10'12	9.94528 AU				
morning rise	-885 May 25 j 02:42	8° <del>♄</del> 29'42		conjunction	-879 Aug 01 j 20:24	29° <del>☿</del> 47'19	1°12'55
	-885 Jul 23 j 17:44	15° <del>♄</del>		minimum elong	-879 Aug 01 j 20:22	29° <del>☿</del> 47'18	1°12'56
retrograde	-885 Sep 08 j 05:20	16° <del>♄</del> 55'37		max. Earth dist.	-879 Aug 02 j 03:15	29° <del>☿</del> 49'27	10.43764 AU
	-885 Oct 25 j 08:25	15° <del>℞</del> <del>♄</del>			-879 Aug 03 j 13:06	0° <del>♁</del>	
opposition	-885 Nov 14 j 00:13	13° <del>♄</del> 25'20	-2°-3'-5	morning rise	-879 Aug 19 j 08:59	1° <del>♁</del> 57'30	
min. Earth dist.	-885 Nov 13 j 17:09	13° <del>♄</del> 26'48	7.95072 AU	retrograde	-879 Nov 27 j 19:30	9° <del>♁</del> 27'35	
direct	-884 Jan 19 j 09:20	9° <del>♄</del> 56'04		opposition	-878 Feb 03 j 00:14	6° <del>♁</del> 05'56	1°45'48
	-884 Apr 06 j 15:27	15° <del>♄</del>		min. Earth dist.	-878 Feb 02 j 19:53	6° <del>♁</del> 06'48	8.50200 AU
evening set	-884 May 03 j 06:48	18° <del>♄</del> 15'26		direct	-878 Apr 13 j 15:02	2° <del>♁</del> 38'48	
				evening set	-878 Jul 28 j 16:32	10° <del>♁</del> 25'54	
conjunction	-884 May 21 j 10:51	20° <del>♄</del> 37'38	-1°-25'-13				
minimum elong	-884 May 21 j 10:55	20° <del>♄</del> 37'39	1°25'14	conjunction	-878 Aug 15 j 04:33	12° <del>♁</del> 34'18	1°37'42
max. Earth dist.	-884 May 21 j 20:47	20° <del>♄</del> 40'53	9.96244 AU	minimum elong	-878 Aug 15 j 04:29	12° <del>♁</del> 34'17	1°37'43
morning rise	-884 Jun 08 j 15:29	22° <del>♄</del> 59'57		max. Earth dist.	-878 Aug 15 j 08:22	12° <del>♁</del> 35'28	10.56592 AU
	-884 Aug 14 j 13:47	0° <del>♁</del>		morning rise	-878 Sep 01 j 11:41	14° <del>♁</del> 41'12	
retrograde	-884 Sep 21 j 19:30	1° <del>♁</del> 20'00			-878 Sep 04 j 02:21	15° <del>♁</del>	
	-884 Oct 30 j 09:13	30° <del>℞</del> <del>♄</del>		retrograde	-878 Dec 10 j 07:16	22° <del>♁</del> 02'15	
opposition	-884 Nov 27 j 08:56	27° <del>♄</del> 50'43	-1°-28'-28	opposition	-877 Feb 15 j 22:32	18° <del>♁</del> 42'02	2°12'57
min. Earth dist.	-884 Nov 27 j 00:54	27° <del>♄</del> 52'23	7.98375 AU	min. Earth dist.	-877 Feb 15 j 19:40	18° <del>♁</del> 42'35	8.62922 AU
direct	-883 Feb 02 j 03:03	24° <del>♄</del> 21'07		direct	-877 Apr 27 j 03:37	15° <del>♁</del> 16'01	
	-883 Apr 26 j 23:09	0° <del>♁</del>		evening set	-877 Aug 10 j 19:12	22° <del>♁</del> 54'52	
evening set	-883 May 18 j 14:42	2° <del>♁</del> 39'45					
				conjunction	-877 Aug 28 j 01:54	25° <del>♁</del> 00'09	1°57'14
conjunction	-883 Jun 05 j 19:51	5° <del>♁</del> 01'25	0°-55'-13	minimum elong	-877 Aug 28 j 01:51	25° <del>♁</del> 00'08	1°57'14
minimum elong	-883 Jun 05 j 19:54	5° <del>♁</del> 01'26	0°55'13	max. Earth dist.	-877 Aug 28 j 03:34	25° <del>♁</del> 00'39	10.68985 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 3

Attention, astronomical year style is used: The year -877 in astronomical counting style is the year 878 BCE in historical counting style.

morning rise	-877 Sep 14 j 03:42	27°♈03'56		morning rise	-871 Nov 20 j 21:58	6°♌12'47	
	-877 Oct 10 j 04:12	0°♏		retrograde	-870 Feb 28 j 23:44	13°♌08'02	
retrograde	-877 Dec 22 j 14:25	4°♏17'10		opposition	-870 May 10 j 12:14	9°♌50'45	2°09'25
opposition	-876 Feb 28 j 14:56	0°♏58'09	2°33'12	min. Earth dist.	-870 May 10 j 19:16	9°♌49'27	9.11523 AU
min. Earth dist.	-876 Feb 28 j 13:18	0°♏58'28	8.74961 AU	direct	-870 Jul 20 j 18:02	6°♌31'35	
	-876 Mar 12 j 10:23	30°♏		evening set	-870 Oct 30 j 02:46	13°♌30'46	
direct	-876 May 09 j 06:29	27°♈33'21			-870 Nov 11 j 21:53	15°♌	
	-876 Jul 04 j 08:50	0°♏					
evening set	-876 Aug 22 j 11:24	5°♏04'08		conjunction	-870 Nov 15 j 14:54	15°♌26'06	1°36'33
				minimum elong	-870 Nov 15 j 14:56	15°♌26'07	1°36'32
conjunction	-876 Sep 08 j 13:11	7°♏06'36	2°11'02	max. Earth dist.	-870 Nov 15 j 05:55	15°♌23'28	11.10791 AU
minimum elong	-876 Sep 08 j 13:09	7°♏06'35	2°11'02	morning rise	-870 Dec 02 j 02:34	17°♌21'20	
max. Earth dist.	-876 Sep 08 j 13:32	7°♏06'42	10.80466 AU	retrograde	-869 Mar 12 j 17:11	24°♌18'55	
morning rise	-876 Sep 25 j 10:07	9°♏07'39		opposition	-869 May 22 j 11:50	21°♌01'03	1°44'59
retrograde	-875 Jan 02 j 15:10	16°♏14'18		min. Earth dist.	-869 May 22 j 19:58	20°♌59'34	9.09655 AU
opposition	-875 Mar 12 j 02:27	12°♏56'15	2°46'14	direct	-869 Aug 01 j 12:20	17°♌42'19	
min. Earth dist.	-875 Mar 12 j 02:37	12°♏56'13	8.85863 AU	evening set	-869 Nov 10 j 06:37	24°♌40'36	
direct	-875 May 22 j 01:59	9°♏32'39					
evening set	-875 Sep 03 j 17:53	16°♏55'48		conjunction	-869 Nov 26 j 19:14	26°♌36'28	1°14'43
				minimum elong	-869 Nov 26 j 19:16	26°♌36'29	1°14'41
conjunction	-875 Sep 20 j 15:17	18°♏55'49	2°18'55	max. Earth dist.	-869 Nov 26 j 09:55	26°♌33'43	11.07770 AU
minimum elong	-875 Sep 20 j 15:16	18°♏55'48	2°18'54	morning rise	-869 Dec 13 j 08:16	28°♌32'30	
max. Earth dist.	-875 Sep 20 j 13:47	18°♏55'22	10.90603 AU		-869 Dec 26 j 07:06	0°♏	
morning rise	-875 Oct 07 j 08:15	20°♏54'35		retrograde	-868 Mar 23 j 14:06	5°♏34'01	
retrograde	-874 Jan 14 j 11:18	27°♏56'03		opposition	-868 Jun 02 j 13:13	2°♏15'21	1°16'22
opposition	-874 Mar 24 j 09:35	24°♏38'42	2°52'01	min. Earth dist.	-868 Jun 02 j 21:05	2°♏13'54	9.05411 AU
min. Earth dist.	-874 Mar 24 j 12:00	24°♏38'14	8.95216 AU		-868 Jul 06 j 06:38	30°♏	
direct	-874 Jun 03 j 15:35	21°♏16'12		direct	-868 Aug 12 j 05:33	28°♌56'52	
evening set	-874 Sep 15 j 16:05	28°♏32'26			-868 Sep 17 j 07:23	0°♏	
	-874 Sep 28 j 02:45	0°♏		evening set	-868 Nov 20 j 12:14	5°♏55'46	
conjunction	-874 Oct 02 j 09:49	0°♏30'29	2°20'56	conjunction	-868 Dec 07 j 02:01	7°♏52'36	0°49'49
minimum elong	-874 Oct 02 j 09:49	0°♏30'29	2°20'55	minimum elong	-868 Dec 07 j 02:03	7°♏52'36	0°49'48
max. Earth dist.	-874 Oct 02 j 05:43	0°♏29'17	10.99024 AU	max. Earth dist.	-868 Dec 06 j 17:19	7°♏50'01	11.02428 AU
morning rise	-874 Oct 18 j 23:55	2°♏27'30		morning rise	-868 Dec 23 j 16:52	9°♏49'49	
retrograde	-873 Jan 26 j 02:59	9°♏25'07		retrograde	-867 Apr 04 j 17:44	16°♏56'50	
opposition	-873 Apr 05 j 12:58	6°♏08'11	2°50'48	opposition	-867 Jun 14 j 17:21	13°♏37'10	0°44'26
min. Earth dist.	-873 Apr 05 j 17:12	6°♏07'24	9.02677 AU	min. Earth dist.	-867 Jun 15 j 00:38	13°♏35'50	8.98931 AU
direct	-873 Jun 15 j 22:42	2°♏46'43		direct	-867 Aug 24 j 00:13	10°♏18'43	
evening set	-873 Sep 27 j 07:13	9°♏56'56		evening set	-867 Dec 01 j 21:30	17°♏19'48	
conjunction	-873 Oct 13 j 22:15	11°♏53'33	2°17'18	conjunction	-867 Dec 18 j 12:47	19°♏18'00	0°22'40
minimum elong	-873 Oct 13 j 22:16	11°♏53'33	2°17'18	minimum elong	-867 Dec 18 j 12:48	19°♏18'00	0°22'39
max. Earth dist.	-873 Oct 13 j 16:22	11°♏51'49	11.05430 AU	max. Earth dist.	-867 Dec 18 j 04:07	19°♏15'25	10.94943 AU
morning rise	-873 Oct 30 j 10:24	13°♏49'19		morning rise	-866 Jan 04 j 06:00	21°♏16'50	
retrograde	-872 Feb 06 j 17:23	20°♏44'38		retrograde	-866 Apr 17 j 03:00	28°♏30'47	
opposition	-872 Apr 16 j 13:54	17°♏27'49	2°42'57	opposition	-866 Jun 27 j 01:29	25°♏09'59	0°10'11
min. Earth dist.	-872 Apr 16 j 18:46	17°♏26'55	9.07981 AU	min. Earth dist.	-866 Jun 27 j 08:37	25°♏08'39	8.90436 AU
direct	-872 Jun 27 j 02:06	14°♏07'16		direct	-866 Sep 04 j 19:22	21°♏51'20	
evening set	-872 Oct 07 j 16:44	21°♏12'31		desc. node	-866 Oct 14 j 04:43	23°♏08'22	
				evening set	-866 Dec 13 j 12:15	28°♏56'12	
conjunction	-872 Oct 24 j 06:05	23°♏08'12	2°08'24		-866 Dec 22 j 10:48	0°♏	
minimum elong	-872 Oct 24 j 06:07	23°♏08'13	2°08'24				
max. Earth dist.	-872 Oct 23 j 23:53	23°♏06'23	11.09600 AU	conjunction	-866 Dec 30 j 05:15	0°♏56'04	0°-5'-56
morning rise	-872 Nov 09 j 17:05	25°♏03'16		minimum elong	-866 Dec 30 j 05:14	0°♏56'03	0°05'58
	-872 Dec 29 j 16:12	0°♌		behind sun begin	-866 Dec 29 j 22:33	0°♏54'04	
retrograde	-871 Feb 17 j 09:21	1°♌57'48		behind sun end	-866 Dec 30 j 11:56	0°♏58'03	
	-871 Apr 10 j 02:36	30°♏		max. Earth dist.	-866 Dec 29 j 20:12	0°♏53'21	10.85580 AU
opposition	-871 Apr 28 j 13:22	28°♏40'51	2°28'58	morning rise	-865 Jan 16 j 01:13	2°♏56'51	
min. Earth dist.	-871 Apr 28 j 19:01	28°♏39'49	9.10958 AU	retrograde	-865 Apr 29 j 17:41	10°♏19'09	
direct	-871 Jul 09 j 00:19	25°♏21'06		opposition	-865 Jul 09 j 14:27	6°♏57'02	0°-25'-14
	-871 Sep 27 j 06:20	0°♌		min. Earth dist.	-865 Jul 09 j 21:32	6°♏55'42	8.80248 AU
evening set	-871 Oct 18 j 22:42	2°♌22'36		direct	-865 Sep 16 j 19:13	3°♏37'56	
				evening set	-865 Dec 25 j 10:03	10°♏48'09	
conjunction	-871 Nov 04 j 11:07	4°♌17'53	1°54'38				
minimum elong	-871 Nov 04 j 11:09	4°♌17'53	1°54'38	conjunction	-864 Jan 11 j 05:16	12°♏50'01	0°-34'-44
max. Earth dist.	-871 Nov 04 j 03:53	4°♌15'46	11.11404 AU	minimum elong	-864 Jan 11 j 05:14	12°♏50'01	0°34'46

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 4

Attention, astronomical year style is used: The year -864 in astronomical counting style is the year 865 BCE in historical counting style.

max. Earth dist.	-864 Jan 10 j 21:17	12° $\overline{3}$ 47'36	10.74702 AU	conjunction	-858 Mar 31 j 09:31	1° $\overline{Y}$ 31'21	-2°-19'-7
morning rise	-864 Jan 28 j 04:10	14° $\overline{3}$ 53'02		minimum elong	-858 Mar 31 j 09:31	1° $\overline{Y}$ 31'21	2°19'08
retrograde	-864 May 11 j 17:59	22° $\overline{3}$ 24'50		max. Earth dist.	-858 Mar 31 j 12:14	1° $\overline{Y}$ 32'14	10.06203 AU
opposition	-864 Jul 21 j 09:04	19° $\overline{3}$ 01'19	-1°00'-29	morning rise	-858 Apr 18 j 05:19	3° $\overline{Y}$ 49'54	
min. Earth dist.	-864 Jul 21 j 15:05	19° $\overline{3}$ 00'11	8.68780 AU	retrograde	-858 Aug 03 j 15:53	12° $\overline{Y}$ 15'32	
direct	-864 Sep 28 j 01:30	15° $\overline{3}$ 41'34		opposition	-858 Oct 10 j 11:15	8° $\overline{Y}$ 45'14	-2°-51'-9
evening set	-863 Jan 05 j 16:29	22° $\overline{3}$ 58'31		min. Earth dist.	-858 Oct 10 j 08:09	8° $\overline{Y}$ 45'52	8.02826 AU
				direct	-858 Dec 15 j 15:38	5° $\overline{Y}$ 18'36	
conjunction	-863 Jan 22 j 14:19	25° $\overline{3}$ 02'40	-1°-2'-41	evening set	-857 Mar 28 j 15:12	13° $\overline{Y}$ 27'54	
minimum elong	-863 Jan 22 j 14:17	25° $\overline{3}$ 02'40	1°02'42				
max. Earth dist.	-863 Jan 22 j 08:26	25° $\overline{3}$ 00'51	10.62746 AU	conjunction	-857 Apr 15 j 11:13	15° $\overline{Y}$ 47'19	-2°-12'-56
morning rise	-863 Feb 08 j 16:15	27° $\overline{3}$ 08'08		minimum elong	-857 Apr 15 j 11:15	15° $\overline{Y}$ 47'20	2°12'57
	-863 Mar 05 j 15:02	0° $\approx$		max. Earth dist.	-857 Apr 15 j 16:44	15° $\overline{Y}$ 49'08	9.99789 AU
retrograde	-863 May 25 j 02:54	4° $\approx$ 50'15		morning rise	-857 May 03 j 10:31	18° $\overline{Y}$ 07'49	
opposition	-863 Aug 03 j 09:51	1° $\approx$ 25'17	-1°-33'-56	retrograde	-857 Aug 18 j 11:59	26° $\overline{Y}$ 35'44	
min. Earth dist.	-863 Aug 03 j 13:59	1° $\approx$ 24'29	8.56502 AU	opposition	-857 Oct 24 j 20:24	23° $\overline{Y}$ 05'15	-2°-38'-20
	-863 Aug 22 j 10:16	30° $\overline{R}$ 3		min. Earth dist.	-857 Oct 24 j 15:15	23° $\overline{Y}$ 06'19	7.97851 AU
direct	-863 Oct 10 j 12:11	28° $\overline{3}$ 04'41		direct	-857 Dec 30 j 00:14	19° $\overline{Y}$ 37'30	
	-863 Nov 26 j 17:53	0° $\approx$		evening set	-856 Apr 11 j 19:19	27° $\overline{Y}$ 52'23	
evening set	-862 Jan 18 j 09:05	5° $\approx$ 29'39			-856 Apr 28 j 02:26	0° $\overline{8}$	
conjunction	-862 Feb 04 j 09:43	7° $\approx$ 36'16	-1°-28'-21	conjunction	-856 Apr 29 j 19:21	0° $\overline{8}$ 13'27	-1°-58'-27
minimum elong	-862 Feb 04 j 09:40	7° $\approx$ 36'15	1°28'23	minimum elong	-856 Apr 29 j 19:24	0° $\overline{8}$ 13'28	1°58'28
max. Earth dist.	-862 Feb 04 j 05:34	7° $\approx$ 34'58	10.50221 AU	max. Earth dist.	-856 Apr 30 j 03:12	0° $\overline{8}$ 16'02	9.96378 AU
morning rise	-862 Feb 21 j 14:50	9° $\approx$ 44'20		morning rise	-856 May 17 j 21:31	2° $\overline{8}$ 35'14	
	-862 Apr 11 j 13:58	15° $\approx$		retrograde	-856 Sep 01 j 07:48	11° $\overline{8}$ 01'57	
retrograde	-862 Jun 07 j 20:10	17° $\approx$ 37'06		opposition	-856 Nov 07 j 06:26	7° $\overline{8}$ 31'41	-2°-15'-26
	-862 Aug 06 j 02:34	15° $\overline{R}$ $\approx$		min. Earth dist.	-856 Nov 06 j 23:45	7° $\overline{8}$ 33'05	7.96016 AU
opposition	-862 Aug 16 j 17:05	14° $\approx$ 10'42	-2°-3'-50	direct	-855 Jan 12 j 12:52	4° $\overline{8}$ 02'59	
min. Earth dist.	-862 Aug 16 j 19:22	14° $\approx$ 10'15	8.43957 AU	evening set	-855 Apr 27 j 03:05	12° $\overline{8}$ 21'00	
direct	-862 Oct 23 j 06:11	10° $\approx$ 49'04					
	-861 Jan 02 j 09:48	15° $\approx$		conjunction	-855 May 15 j 06:13	14° $\overline{8}$ 42'56	-1°-36'-28
evening set	-861 Jan 31 j 12:36	18° $\approx$ 22'58		minimum elong	-855 May 15 j 06:17	14° $\overline{8}$ 42'58	1°36'29
				max. Earth dist.	-855 May 15 j 15:44	14° $\overline{8}$ 46'04	9.96233 AU
conjunction	-861 Feb 17 j 16:18	20° $\approx$ 32'12	-1°-50'-16		-855 May 17 j 10:09	15° $\overline{8}$	
minimum elong	-861 Feb 17 j 16:15	20° $\approx$ 32'11	1°50'18	morning rise	-855 Jun 02 j 10:12	17° $\overline{8}$ 05'10	
max. Earth dist.	-861 Feb 17 j 13:26	20° $\approx$ 31'17	10.37716 AU	retrograde	-855 Sep 16 j 00:36	25° $\overline{8}$ 27'23	
morning rise	-861 Mar 07 j 00:54	22° $\approx$ 42'59		opposition	-855 Nov 21 j 15:37	21° $\overline{8}$ 57'45	-1°-43'-56
	-861 May 22 j 19:45	0° $\overline{H}$		min. Earth dist.	-855 Nov 21 j 08:04	21° $\overline{8}$ 59'19	7.97469 AU
retrograde	-861 Jun 21 j 21:59	0° $\overline{H}$ 46'06		direct	-854 Jan 27 j 05:13	18° $\overline{8}$ 28'21	
	-861 Jul 22 j 04:20	30° $\overline{R}$ $\approx$		evening set	-854 May 12 j 11:00	26° $\overline{8}$ 46'50	
opposition	-861 Aug 30 j 07:06	27° $\approx$ 18'22	-2°-28'-15				
min. Earth dist.	-861 Aug 30 j 08:05	27° $\approx$ 18'10	8.31737 AU	conjunction	-854 May 30 j 15:50	29° $\overline{8}$ 08'42	-1°-8'-31
direct	-861 Nov 05 j 07:49	23° $\approx$ 55'33		minimum elong	-854 May 30 j 15:53	29° $\overline{8}$ 08'43	1°08'32
	-860 Jan 31 j 16:20	0° $\overline{H}$		max. Earth dist.	-854 May 31 j 02:09	29° $\overline{8}$ 12'04	9.99364 AU
evening set	-860 Feb 14 j 03:20	1° $\overline{H}$ 38'51			-854 Jun 06 j 04:52	0° $\overline{II}$	
conjunction	-860 Mar 02 j 10:34	3° $\overline{H}$ 50'46	-2°-6'-55	morning rise	-854 Jun 17 j 20:15	1° $\overline{II}$ 30'24	
minimum elong	-860 Mar 02 j 10:32	3° $\overline{H}$ 50'46	2°06'56	retrograde	-854 Sep 30 j 10:40	9° $\overline{II}$ 45'24	
max. Earth dist.	-860 Mar 02 j 09:05	3° $\overline{H}$ 50'18	10.25822 AU	opposition	-854 Dec 05 j 21:59	6° $\overline{II}$ 16'44	-1°-6'-13
morning rise	-860 Mar 19 j 22:53	6° $\overline{H}$ 04'18		min. Earth dist.	-854 Dec 05 j 14:22	6° $\overline{II}$ 18'19	8.02107 AU
retrograde	-860 Jul 05 j 07:18	14° $\overline{H}$ 16'49		direct	-853 Feb 10 j 22:24	2° $\overline{II}$ 46'57	
opposition	-860 Sep 12 j 03:22	10° $\overline{H}$ 47'55	-2°-45'-19	evening set	-853 May 27 j 16:06	11° $\overline{II}$ 03'23	
min. Earth dist.	-860 Sep 12 j 03:21	10° $\overline{H}$ 47'55	8.20408 AU				
direct	-860 Nov 17 j 17:45	7° $\overline{H}$ 23'47		conjunction	-853 Jun 14 j 21:01	13° $\overline{II}$ 24'11	0°-36'-38
evening set	-859 Feb 27 j 05:24	15° $\overline{H}$ 16'34		minimum elong	-853 Jun 14 j 21:03	13° $\overline{II}$ 24'12	0°36'39
				max. Earth dist.	-853 Jun 15 j 07:06	13° $\overline{II}$ 27'27	10.05535 AU
conjunction	-859 Mar 16 j 16:39	17° $\overline{H}$ 31'11	-2°-16'-54	morning rise	-853 Jul 03 j 00:17	15° $\overline{II}$ 44'26	
minimum elong	-859 Mar 16 j 16:38	17° $\overline{H}$ 31'11	2°16'55	retrograde	-853 Oct 14 j 12:29	23° $\overline{II}$ 50'12	
max. Earth dist.	-859 Mar 16 j 16:51	17° $\overline{H}$ 31'15	10.15107 AU	opposition	-853 Dec 19 j 23:43	20° $\overline{II}$ 22'49	0°-25'-2
morning rise	-859 Apr 03 j 08:44	19° $\overline{H}$ 47'21		min. Earth dist.	-853 Dec 19 j 16:22	20° $\overline{II}$ 24'19	8.09599 AU
retrograde	-859 Jul 19 j 21:33	28° $\overline{H}$ 07'36		direct	-852 Feb 25 j 13:54	16° $\overline{II}$ 52'56	
opposition	-859 Sep 26 j 05:00	24° $\overline{H}$ 37'51	-2°-53'-20	evening set	-852 Jun 10 j 15:24	25° $\overline{II}$ 05'06	
min. Earth dist.	-859 Sep 26 j 03:50	24° $\overline{H}$ 38'05	8.10548 AU				
direct	-859 Dec 01 j 12:50	21° $\overline{H}$ 12'25		conjunction	-852 Jun 28 j 18:40	27° $\overline{II}$ 24'00	0°-3'-8
evening set	-858 Mar 13 j 17:55	29° $\overline{H}$ 14'10		minimum elong	-852 Jun 28 j 18:41	27° $\overline{II}$ 24'00	0°03'08
	-858 Mar 19 j 16:38	0° $\overline{Y}$		behind sun begin	-852 Jun 28 j 11:22	27° $\overline{II}$ 21'41	
				behind sun end	-852 Jun 29 j 01:59	27° $\overline{II}$ 26'19	



# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 5

Attention, astronomical year style is used: The year -852 in astronomical counting style is the year 853 BCE in historical counting style.

max. Earth dist.	-852 Jun 29 j 03:58	27° $\Pi$ 26'58	10.14302 AU	conjunction	-846 Sep 15 j 18:16	14° $\Pi$ 00'43	2°16'08
morning rise	-852 Jul 16 j 19:09	29° $\Pi$ 41'56		minimum elong	-846 Sep 15 j 18:15	14° $\Pi$ 00'42	2°16'08
	-852 Jul 19 j 04:47	0° $\Xi$		max. Earth dist.	-846 Sep 15 j 17:38	14° $\Pi$ 00'31	10.86359 AU
asc. node	-852 Aug 02 j 11:42	1° $\Xi$ 44'18		morning rise	-846 Oct 02 j 13:06	16° $\Pi$ 00'24	
retrograde	-852 Oct 27 j 05:26	7° $\Xi$ 37'23		retrograde	-845 Jan 09 j 14:56	23° $\Pi$ 03'38	
opposition	-851 Jan 01 j 19:55	4° $\Xi$ 11'25	0°16'41	opposition	-845 Mar 19 j 09:40	19° $\Pi$ 45'50	2°50'17
min. Earth dist.	-851 Jan 01 j 12:49	4° $\Xi$ 12'52	8.19427 AU	min. Earth dist.	-845 Mar 19 j 09:53	19° $\Pi$ 45'48	8.91559 AU
direct	-851 Mar 11 j 00:51	0° $\Xi$ 41'49		direct	-845 May 29 j 14:44	16° $\Pi$ 22'46	
evening set	-851 Jun 25 j 06:19	8° $\Xi$ 47'55		evening set	-845 Sep 10 j 20:22	23° $\Pi$ 41'38	
conjunction	-851 Jul 13 j 06:23	11° $\Xi$ 04'11	0°30'00	conjunction	-845 Sep 27 j 15:42	25° $\Pi$ 40'26	2°20'41
minimum elong	-851 Jul 13 j 06:22	11° $\Xi$ 04'11	0°30'01	minimum elong	-845 Sep 27 j 15:41	25° $\Pi$ 40'26	2°20'40
max. Earth dist.	-851 Jul 13 j 14:49	11° $\Xi$ 06'52	10.25077 AU	max. Earth dist.	-845 Sep 27 j 14:01	25° $\Pi$ 39'56	10.96016 AU
morning rise	-851 Jul 31 j 02:40	13° $\Xi$ 19'12		morning rise	-845 Oct 14 j 06:58	27° $\Pi$ 38'05	
retrograde	-851 Nov 09 j 14:28	21° $\Xi$ 04'01			-845 Nov 04 j 12:50	0° $\Xi$	
opposition	-850 Jan 15 j 09:46	17° $\Xi$ 39'34	0°56'24	retrograde	-844 Jan 21 j 09:37	4° $\Xi$ 36'51	
min. Earth dist.	-850 Jan 15 j 02:52	17° $\Xi$ 40'58	8.30968 AU	opposition	-844 Mar 30 j 14:09	1° $\Xi$ 19'49	2°52'04
direct	-850 Mar 25 j 05:40	14° $\Xi$ 10'34		min. Earth dist.	-844 Mar 30 j 15:50	1° $\Xi$ 19'30	9.00321 AU
evening set	-850 Jul 09 j 11:19	22° $\Xi$ 09'20			-844 Apr 17 j 22:26	30° $\mathbb{R}$ $\Pi$	
				direct	-844 Jun 09 j 22:34	27° $\Pi$ 58'04	
conjunction	-850 Jul 27 j 07:03	24° $\Xi$ 22'32	1°00'41		-844 Jul 31 j 09:02	0° $\Xi$	
minimum elong	-850 Jul 27 j 07:00	24° $\Xi$ 22'31	1°00'41	evening set	-844 Sep 21 j 14:09	5° $\Xi$ 10'28	
max. Earth dist.	-850 Jul 27 j 14:36	24° $\Xi$ 24'54	10.37211 AU				
morning rise	-850 Aug 13 j 22:10	26° $\Xi$ 34'16		conjunction	-844 Oct 08 j 06:23	7° $\Xi$ 07'34	2°19'29
	-850 Sep 12 j 16:46	0° $\mathcal{Q}$		minimum elong	-844 Oct 08 j 06:24	7° $\Xi$ 07'34	2°19'29
retrograde	-850 Nov 22 j 14:39	4° $\mathcal{Q}$ 08'44		max. Earth dist.	-844 Oct 08 j 03:16	7° $\Xi$ 06'39	11.03770 AU
opposition	-849 Jan 28 j 16:53	0° $\mathcal{Q}$ 45'49	1°31'59	morning rise	-844 Oct 24 j 19:08	9° $\Xi$ 03'43	
min. Earth dist.	-849 Jan 28 j 10:48	0° $\mathcal{Q}$ 47'02	8.43552 AU	retrograde	-843 Feb 01 j 00:47	15° $\Xi$ 59'30	
	-849 Feb 07 j 09:26	30° $\mathbb{R}$ $\Xi$		opposition	-843 Apr 11 j 15:56	12° $\Xi$ 42'57	2°47'03
direct	-849 Apr 08 j 03:18	27° $\Xi$ 17'41		min. Earth dist.	-843 Apr 11 j 19:42	12° $\Xi$ 42'15	9.07025 AU
	-849 Jun 05 j 06:41	0° $\mathcal{Q}$		direct	-843 Jun 22 j 02:31	9° $\Xi$ 22'21	
evening set	-849 Jul 23 j 05:31	5° $\mathcal{Q}$ 08'24		evening set	-843 Oct 03 j 01:49	16° $\Xi$ 29'19	
conjunction	-849 Aug 09 j 20:10	7° $\mathcal{Q}$ 18'18	1°27'29	conjunction	-843 Oct 19 j 15:45	18° $\Xi$ 25'13	2°12'51
minimum elong	-849 Aug 09 j 20:07	7° $\mathcal{Q}$ 18'17	1°27'30	minimum elong	-843 Oct 19 j 15:47	18° $\Xi$ 25'14	2°12'51
max. Earth dist.	-849 Aug 10 j 02:33	7° $\mathcal{Q}$ 20'17	10.50025 AU	max. Earth dist.	-843 Oct 19 j 10:15	18° $\Xi$ 23'37	11.09352 AU
morning rise	-849 Aug 27 j 05:42	9° $\mathcal{Q}$ 26'41		morning rise	-843 Nov 05 j 03:10	20° $\Xi$ 20'26	
	-849 Oct 19 j 23:03	15° $\mathcal{Q}$		retrograde	-842 Feb 12 j 15:11	27° $\Xi$ 14'42	
retrograde	-849 Dec 05 j 06:57	16° $\mathcal{Q}$ 51'33		opposition	-842 Apr 23 j 15:44	23° $\Xi$ 58'20	2°35'41
	-848 Jan 21 j 22:29	15° $\mathbb{R}$ $\mathcal{Q}$		min. Earth dist.	-842 Apr 23 j 21:15	23° $\Xi$ 57'19	9.11429 AU
opposition	-848 Feb 10 j 17:39	13° $\mathcal{Q}$ 30'09	2°01'54	direct	-842 Jul 04 j 02:12	20° $\Xi$ 38'44	
min. Earth dist.	-848 Feb 10 j 13:18	13° $\mathcal{Q}$ 31'00	8.56501 AU	evening set	-842 Oct 14 j 09:11	27° $\Xi$ 41'24	
direct	-848 Apr 20 j 17:09	10° $\mathcal{Q}$ 03'07					
	-848 Jul 11 j 09:18	15° $\mathcal{Q}$		conjunction	-842 Oct 30 j 21:46	29° $\Xi$ 36'38	2°01'10
evening set	-848 Aug 04 j 12:39	17° $\mathcal{Q}$ 45'27		minimum elong	-842 Oct 30 j 21:48	29° $\Xi$ 36'39	2°01'10
				max. Earth dist.	-842 Oct 30 j 14:40	29° $\Xi$ 34'34	11.12558 AU
conjunction	-848 Aug 21 j 21:49	19° $\mathcal{Q}$ 52'07	1°49'22		-842 Nov 03 j 05:34	0° $\mathbb{M}$ .	
minimum elong	-848 Aug 21 j 21:46	19° $\mathcal{Q}$ 52'06	1°49'22	morning rise	-842 Nov 16 j 08:41	1° $\mathbb{M}$ 31'26	
max. Earth dist.	-848 Aug 22 j 02:01	19° $\mathcal{Q}$ 53'24	10.62868 AU	retrograde	-841 Feb 24 j 04:42	8° $\mathbb{M}$ 25'43	
morning rise	-848 Sep 08 j 01:50	21° $\mathcal{Q}$ 57'14		opposition	-841 May 05 j 14:26	5° $\mathbb{M}$ 09'11	2°18'31
retrograde	-848 Dec 16 j 16:10	29° $\mathcal{Q}$ 13'35		min. Earth dist.	-841 May 05 j 20:42	5° $\mathbb{M}$ 08'03	9.13359 AU
opposition	-847 Feb 22 j 12:19	25° $\mathcal{Q}$ 53'36	2°25'12	direct	-841 Jul 15 j 22:28	1° $\mathbb{M}$ 50'23	
min. Earth dist.	-847 Feb 22 j 09:58	25° $\mathcal{Q}$ 54'03	8.69186 AU	evening set	-841 Oct 25 j 13:47	8° $\mathbb{M}$ 50'02	
direct	-847 May 03 j 22:34	22° $\mathcal{Q}$ 27'49					
evening set	-847 Aug 17 j 08:58	0° $\Pi$ 01'52		conjunction	-841 Nov 11 j 01:58	10° $\mathbb{M}$ 45'07	1°44'56
	-847 Aug 17 j 02:40	0° $\Pi$		minimum elong	-841 Nov 11 j 02:00	10° $\mathbb{M}$ 45'08	1°44'56
				max. Earth dist.	-841 Nov 10 j 18:24	10° $\mathbb{M}$ 42'54	11.13244 AU
conjunction	-847 Sep 03 j 12:49	2° $\Pi$ 05'30	2°05'41	morning rise	-841 Nov 27 j 13:04	12° $\mathbb{M}$ 39'58	
minimum elong	-847 Sep 03 j 12:46	2° $\Pi$ 05'30	2°05'41		-841 Dec 18 j 19:20	15° $\mathbb{M}$ .	
max. Earth dist.	-847 Sep 03 j 14:21	2° $\Pi$ 05'58	10.75155 AU	retrograde	-840 Mar 06 j 22:46	19° $\mathbb{M}$ 35'51	
morning rise	-847 Sep 20 j 11:54	4° $\Pi$ 07'42		opposition	-840 May 16 j 13:30	16° $\mathbb{M}$ 18'54	1°56'12
retrograde	-847 Dec 28 j 17:05	11° $\Pi$ 16'48		min. Earth dist.	-840 May 16 j 20:16	16° $\mathbb{M}$ 17'39	9.12710 AU
opposition	-846 Mar 07 j 01:23	7° $\Pi$ 58'01	2°41'22		-840 Jun 04 j 00:56	15° $\mathbb{R}$ $\mathbb{M}$ .	
min. Earth dist.	-846 Mar 07 j 00:38	7° $\Pi$ 58'10	8.81043 AU	direct	-840 Jul 26 j 17:26	13° $\mathbb{M}$ 00'39	
direct	-846 May 16 j 22:09	4° $\Pi$ 33'34			-840 Sep 15 j 06:39	15° $\mathbb{M}$ .	
evening set	-846 Aug 29 j 19:05	11° $\Pi$ 59'44		evening set	-840 Nov 04 j 17:24	19° $\mathbb{M}$ 58'39	

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 6

Attention, astronomical year style is used: The year -840 in astronomical counting style is the year 841 BCE in historical counting style.

conjunction	-840 Nov 21 j 05:46	21° $\mathbb{M}$ 54'04	1°24'43		-833 Jan 11 j 22:52	0° $\approx$	
minimum elong	-840 Nov 21 j 05:48	21° $\mathbb{M}$ 54'04	1°24'42	evening set	-833 Jan 13 j 02:05	0° $\approx$ 08'15	
max. Earth dist.	-840 Nov 20 j 21:13	21° $\mathbb{M}$ 51'33	11.11329 AU				
morning rise	-840 Dec 07 j 17:54	23° $\mathbb{M}$ 49'30		conjunction	-833 Jan 30 j 01:16	2° $\approx$ 13'47	-1°-17'-16
	-839 Feb 14 j 23:26	0° $\mathcal{A}$		minimum elong	-833 Jan 30 j 01:13	2° $\approx$ 13'46	1°17'18
retrograde	-839 Mar 18 j 18:09	0° $\mathcal{A}$ 48'33		max. Earth dist.	-833 Jan 29 j 17:43	2° $\approx$ 11'26	10.54992 AU
	-839 Apr 20 j 02:39	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-833 Feb 16 j 05:04	4° $\approx$ 20'45	
opposition	-839 May 28 j 13:54	27° $\mathbb{M}$ 30'54	1°29'23	retrograde	-833 Jun 02 j 01:07	12° $\approx$ 08'55	
min. Earth dist.	-839 May 28 j 22:01	27° $\mathbb{M}$ 29'25	9.09444 AU	opposition	-833 Aug 11 j 03:43	8° $\approx$ 42'45	-1°-51'-5
direct	-839 Aug 07 j 09:02	24° $\mathbb{M}$ 12'56		min. Earth dist.	-833 Aug 11 j 08:55	8° $\approx$ 41'44	8.48416 AU
	-839 Nov 05 j 11:27	0° $\mathcal{A}$		direct	-833 Oct 17 j 23:26	5° $\approx$ 21'05	
evening set	-839 Nov 15 j 22:10	1° $\mathcal{A}$ 10'56		evening set	-832 Jan 26 j 00:25	12° $\approx$ 51'14	
conjunction	-839 Dec 02 j 11:12	3° $\mathcal{A}$ 07'07	1°01'08	conjunction	-832 Feb 12 j 02:44	14° $\approx$ 59'24	-1°-41'-3
minimum elong	-839 Dec 02 j 11:14	3° $\mathcal{A}$ 07'07	1°01'07	minimum elong	-832 Feb 12 j 02:41	14° $\approx$ 59'23	1°41'05
max. Earth dist.	-839 Dec 02 j 00:49	3° $\mathcal{A}$ 04'03	11.06823 AU	max. Earth dist.	-832 Feb 11 j 21:48	14° $\approx$ 57'51	10.41874 AU
morning rise	-839 Dec 19 j 01:08	5° $\mathcal{A}$ 03'36			-832 Feb 12 j 04:38	15° $\approx$	
retrograde	-838 Mar 30 j 17:21	12° $\mathcal{A}$ 07'29		morning rise	-832 Feb 29 j 09:51	17° $\approx$ 09'07	
opposition	-838 Jun 09 j 16:30	8° $\mathcal{A}$ 48'53	0°58'53	retrograde	-832 Jun 14 j 22:48	25° $\approx$ 08'07	
min. Earth dist.	-838 Jun 10 j 01:45	8° $\mathcal{A}$ 47'11	9.03650 AU	opposition	-832 Aug 23 j 14:49	21° $\approx$ 40'23	-2°-18'-13
direct	-838 Aug 19 j 02:53	5° $\mathcal{A}$ 30'55		min. Earth dist.	-832 Aug 23 j 17:52	21° $\approx$ 39'47	8.35486 AU
evening set	-838 Nov 27 j 05:37	12° $\mathcal{A}$ 30'33		direct	-832 Oct 29 j 22:27	18° $\approx$ 17'28	
				evening set	-831 Feb 07 j 10:09	25° $\approx$ 57'05	
conjunction	-838 Dec 13 j 19:59	14° $\mathcal{A}$ 27'57	0°34'55	conjunction	-831 Feb 24 j 15:58	28° $\approx$ 08'01	-2°00'-15
minimum elong	-838 Dec 13 j 20:00	14° $\mathcal{A}$ 27'57	0°34'54	minimum elong	-831 Feb 24 j 15:56	28° $\approx$ 08'00	2°00'17
max. Earth dist.	-838 Dec 13 j 09:10	14° $\mathcal{A}$ 24'44	10.99894 AU	max. Earth dist.	-831 Feb 24 j 13:43	28° $\approx$ 07'18	10.29186 AU
morning rise	-838 Dec 30 j 12:07	16° $\mathcal{A}$ 25'54			-831 Mar 11 j 08:59	0° $\mathcal{H}$	
retrograde	-837 Apr 11 j 23:01	23° $\mathcal{A}$ 36'13		morning rise	-831 Mar 14 j 02:35	0° $\mathcal{H}$ 20'32	
opposition	-837 Jun 21 j 22:42	20° $\mathcal{A}$ 16'24	0°25'35	retrograde	-831 Jun 29 j 05:42	8° $\mathcal{H}$ 29'44	
min. Earth dist.	-837 Jun 22 j 07:48	20° $\mathcal{A}$ 14'43	8.95575 AU	opposition	-831 Sep 06 j 08:31	5° $\mathcal{H}$ 00'38	-2°-38'-50
direct	-837 Aug 30 j 22:46	16° $\mathcal{A}$ 58'11		min. Earth dist.	-831 Sep 06 j 09:09	5° $\mathcal{H}$ 00'31	8.23320 AU
evening set	-837 Dec 08 j 17:31	24° $\mathcal{A}$ 00'58		direct	-831 Nov 12 j 04:14	1° $\mathcal{H}$ 36'26	
				evening set	-830 Feb 21 j 07:28	9° $\mathcal{H}$ 25'47	
conjunction	-837 Dec 25 j 09:44	25° $\mathcal{A}$ 59'57	0°06'56	conjunction	-830 Mar 10 j 17:02	11° $\mathcal{H}$ 39'28	-2°-13'-23
minimum elong	-837 Dec 25 j 09:44	25° $\mathcal{A}$ 59'57	0°06'56	minimum elong	-830 Mar 10 j 17:01	11° $\mathcal{H}$ 39'27	2°13'25
behind sun begin	-837 Dec 25 j 03:14	25° $\mathcal{A}$ 58'02		max. Earth dist.	-830 Mar 10 j 17:16	11° $\mathcal{H}$ 39'32	10.17598 AU
behind sun end	-837 Dec 25 j 16:14	26° $\mathcal{A}$ 01'53		morning rise	-830 Mar 28 j 07:20	13° $\mathcal{H}$ 54'42	
max. Earth dist.	-837 Dec 25 j 00:01	25° $\mathcal{A}$ 57'04	10.90835 AU	retrograde	-830 Jul 13 j 18:40	22° $\mathcal{H}$ 12'41	
morning rise	-836 Jan 11 j 04:18	27° $\mathcal{A}$ 59'45		opposition	-830 Sep 20 j 08:16	18° $\mathcal{H}$ 42'32	-2°-51'-6
	-836 Jan 28 j 20:09	0° $\mathcal{Z}$		min. Earth dist.	-830 Sep 20 j 06:42	18° $\mathcal{H}$ 42'51	8.12587 AU
desc. node	-836 Mar 24 j 19:32	4° $\mathcal{Z}$ 35'17		direct	-830 Nov 25 j 19:08	15° $\mathcal{H}$ 17'01	
retrograde	-836 Apr 23 j 11:31	5° $\mathcal{Z}$ 17'58		evening set	-829 Mar 07 j 15:47	23° $\mathcal{H}$ 15'43	
opposition	-836 Jul 03 j 09:24	1° $\mathcal{Z}$ 56'40	0°-9'-25				
min. Earth dist.	-836 Jul 03 j 17:17	1° $\mathcal{Z}$ 55'12	8.85566 AU	conjunction	-829 Mar 25 j 05:28	25° $\mathcal{H}$ 32'03	-2°-19'-11
	-836 Jul 31 j 03:14	30° $\mathbb{R}$ $\mathcal{A}$		minimum elong	-829 Mar 25 j 05:28	25° $\mathcal{H}$ 32'03	2°19'12
direct	-836 Sep 10 j 21:22	28° $\mathcal{A}$ 37'57		max. Earth dist.	-829 Mar 25 j 07:49	25° $\mathcal{H}$ 32'49	10.07796 AU
	-836 Oct 21 j 08:47	0° $\mathcal{Z}$		morning rise	-829 Apr 11 j 23:37	27° $\mathcal{H}$ 49'50	
evening set	-836 Dec 19 j 11:57	5° $\mathcal{Z}$ 45'28			-829 Apr 29 j 12:04	0° $\mathcal{Y}$	
				retrograde	-829 Jul 28 j 12:25	6° $\mathcal{Y}$ 14'21	
conjunction	-835 Jan 05 j 06:13	7° $\mathcal{Z}$ 46'22	0°-21'-56	opposition	-829 Oct 04 j 13:09	2° $\mathcal{Y}$ 43'31	-2°-53'-34
minimum elong	-835 Jan 05 j 06:12	7° $\mathcal{Z}$ 46'22	0°21'57	min. Earth dist.	-829 Oct 04 j 09:54	2° $\mathcal{Y}$ 44'11	8.03941 AU
max. Earth dist.	-835 Jan 04 j 21:01	7° $\mathcal{Z}$ 43'36	10.80021 AU		-829 Nov 11 j 20:56	30° $\mathbb{R}$ $\mathcal{H}$	
morning rise	-835 Jan 22 j 03:37	9° $\mathcal{Z}$ 48'18		direct	-829 Dec 09 j 18:08	29° $\mathcal{H}$ 16'45	
retrograde	-835 May 06 j 08:47	17° $\mathcal{Z}$ 15'38			-828 Jan 06 j 10:12	0° $\mathcal{Y}$	
opposition	-835 Jul 16 j 01:15	13° $\mathcal{Z}$ 52'45	0°-44'-53	evening set	-828 Mar 21 j 09:48	7° $\mathcal{Y}$ 23'41	
min. Earth dist.	-835 Jul 16 j 08:21	13° $\mathcal{Z}$ 51'25	8.74037 AU				
direct	-835 Sep 22 j 23:51	10° $\mathcal{Z}$ 33'15		conjunction	-828 Apr 08 j 03:50	9° $\mathcal{Y}$ 42'24	-2°-16'-45
evening set	-835 Dec 31 j 14:23	17° $\mathcal{Z}$ 47'00		minimum elong	-828 Apr 08 j 03:51	9° $\mathcal{Y}$ 42'24	2°16'47
				max. Earth dist.	-828 Apr 08 j 08:15	9° $\mathcal{Y}$ 43'51	10.00399 AU
conjunction	-834 Jan 17 j 10:56	19° $\mathcal{Z}$ 50'07	0°-50'-25	morning rise	-828 Apr 26 j 01:46	12° $\mathcal{Y}$ 02'21	
minimum elong	-834 Jan 17 j 10:54	19° $\mathcal{Z}$ 50'06	0°50'26	retrograde	-828 Aug 11 j 08:55	20° $\mathcal{Y}$ 30'28	
max. Earth dist.	-834 Jan 17 j 02:03	19° $\mathcal{Z}$ 47'24	10.67903 AU	opposition	-828 Oct 17 j 21:40	16° $\mathcal{Y}$ 59'23	-2°-45'-26
morning rise	-834 Feb 03 j 11:29	21° $\mathcal{Z}$ 54'29		min. Earth dist.	-828 Oct 17 j 17:07	17° $\mathcal{Y}$ 00'20	7.97940 AU
retrograde	-834 May 19 j 13:04	29° $\mathcal{Z}$ 31'53		direct	-828 Dec 23 j 00:19	13° $\mathcal{Y}$ 31'31	
opposition	-834 Jul 28 j 23:13	26° $\mathcal{Z}$ 07'22	-1°-19'-21	evening set	-827 Apr 05 j 11:37	21° $\mathcal{Y}$ 44'56	
min. Earth dist.	-834 Jul 29 j 05:37	26° $\mathcal{Z}$ 06'08	8.61469 AU				
direct	-834 Oct 05 j 07:18	22° $\mathcal{Z}$ 46'51					

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 7

Attention, astronomical year style is used: The year -827 in astronomical counting style is the year 828 BCE in historical counting style.

conjunction	-827 Apr 23 j 09:50	24°Υ05'33	-2°-5'-52	retrograde	-822 Nov 04 j 08:46	15°♄32'43	
minimum elong	-827 Apr 23 j 09:53	24°Υ05'34	2°05'53	opposition	-821 Jan 09 j 23:26	12°♄08'02	0°39'35
max. Earth dist.	-827 Apr 23 j 16:29	24°Υ07'44	9.95903 AU	min. Earth dist.	-821 Jan 09 j 15:41	12°♄09'36	8.26317 AU
morning rise	-827 May 11 j 11:01	26°Υ27'06		direct	-821 Mar 19 j 10:09	8°♄39'15	
	-827 Jun 09 j 14:08	0°♄		evening set	-821 Jul 03 j 18:45	16°♄41'30	
retrograde	-827 Aug 26 j 05:36	4°♄55'27					
opposition	-827 Nov 01 j 07:56	1°♄24'34	-2°-26'-47	conjunction	-821 Jul 21 j 16:30	18°♄56'04	0°47'48
min. Earth dist.	-827 Nov 01 j 01:58	1°♄25'49	7.95002 AU	minimum elong	-821 Jul 21 j 16:27	18°♄56'04	0°47'49
	-827 Nov 18 j 18:15	30°♄Υ		max. Earth dist.	-821 Jul 22 j 01:38	18°♄58'57	10.32538 AU
direct	-826 Jan 06 j 12:18	27°Υ55'49		morning rise	-821 Aug 08 j 09:55	21°♄09'16	
	-826 Feb 23 j 08:21	0°♄		retrograde	-821 Nov 17 j 11:56	28°♄48'15	
evening set	-826 Apr 20 j 18:21	6°♄13'26		opposition	-820 Jan 23 j 09:52	25°♄25'13	1°17'11
				min. Earth dist.	-820 Jan 23 j 03:44	25°♄26'26	8.38875 AU
conjunction	-826 May 08 j 20:10	8°♄35'15	-1°-47'00	direct	-820 Apr 01 j 12:44	21°♄57'12	
minimum elong	-826 May 08 j 20:14	8°♄35'16	1°47'01	evening set	-820 Jul 16 j 18:17	29°♄51'30	
max. Earth dist.	-826 May 09 j 04:59	8°♄38'09	9.94641 AU		-820 Jul 17 j 22:10	0°♄	
morning rise	-826 May 26 j 23:43	10°♄57'36					
	-826 Jun 29 j 13:53	15°♄		conjunction	-820 Aug 03 j 11:03	2°♄02'47	1°16'26
retrograde	-826 Sep 09 j 23:52	19°♄22'51		minimum elong	-820 Aug 03 j 11:00	2°♄02'46	1°16'27
opposition	-826 Nov 15 j 18:10	15°♄52'36	-1°-58'-45	max. Earth dist.	-820 Aug 03 j 17:25	2°♄04'46	10.45397 AU
min. Earth dist.	-826 Nov 15 j 10:43	15°♄54'09	7.95363 AU	morning rise	-820 Aug 20 j 23:08	4°♄12'35	
	-826 Nov 26 j 09:15	15°♄♄		retrograde	-820 Nov 29 j 06:36	11°♄41'27	
direct	-825 Jan 21 j 04:53	12°♄23'15		opposition	-819 Feb 04 j 13:40	8°♄19'57	1°49'42
	-825 Mar 16 j 13:48	15°♄		min. Earth dist.	-819 Feb 04 j 08:53	8°♄20'53	8.51900 AU
evening set	-825 May 06 j 02:53	20°♄42'27		direct	-819 Apr 15 j 07:32	4°♄52'56	
				evening set	-819 Jul 30 j 06:23	12°♄38'51	
conjunction	-825 May 24 j 07:14	23°♄04'36	-1°-21'-24				
minimum elong	-825 May 24 j 07:17	23°♄04'38	1°21'25	conjunction	-819 Aug 16 j 17:49	14°♄46'50	1°40'32
max. Earth dist.	-825 May 24 j 17:51	23°♄08'06	9.96722 AU	minimum elong	-819 Aug 16 j 17:46	14°♄46'49	1°40'33
morning rise	-825 Jun 11 j 11:51	25°♄26'50		max. Earth dist.	-819 Aug 16 j 21:51	14°♄48'04	10.58325 AU
	-825 Jul 20 j 02:38	0°♄♄			-819 Aug 18 j 12:40	15°♄	
retrograde	-825 Sep 24 j 12:45	3°♄45'57		morning rise	-819 Sep 03 j 00:21	16°♄53'18	
opposition	-825 Nov 30 j 02:21	0°♄16'44	-1°-23'-21	retrograde	-819 Dec 11 j 19:29	24°♄13'13	
min. Earth dist.	-825 Nov 29 j 17:37	0°♄18'33	7.99014 AU	opposition	-818 Feb 17 j 11:03	20°♄53'06	2°15'56
	-825 Dec 03 j 11:00	30°♄♄		min. Earth dist.	-818 Feb 17 j 07:43	20°♄53'45	8.64660 AU
direct	-824 Feb 04 j 22:22	26°♄47'05		direct	-818 Apr 28 j 17:02	17°♄27'15	
	-824 Apr 06 j 04:05	0°♄♄		evening set	-818 Aug 12 j 07:34	25°♄04'51	
evening set	-824 May 20 j 10:16	5°♄05'17					
				conjunction	-818 Aug 29 j 13:48	27°♄09'45	1°59'18
conjunction	-824 Jun 07 j 15:32	7°♄26'48	0°-50'-55	minimum elong	-818 Aug 29 j 13:45	27°♄09'44	1°59'18
minimum elong	-824 Jun 07 j 15:35	7°♄26'49	0°50'55	max. Earth dist.	-818 Aug 29 j 16:03	27°♄10'26	10.70688 AU
max. Earth dist.	-824 Jun 08 j 03:22	7°♄30'39	10.01999 AU	morning rise	-818 Sep 15 j 14:59	29°♄13'10	
morning rise	-824 Jun 25 j 19:34	9°♄47'55			-818 Sep 22 j 06:16	0°♄♄	
retrograde	-824 Oct 07 j 19:13	17°♄58'31		retrograde	-818 Dec 24 j 00:52	6°♄25'21	
opposition	-824 Dec 13 j 06:45	14°♄30'39	0°-43'-14	opposition	-817 Mar 02 j 02:36	3°♄06'27	2°35'12
min. Earth dist.	-824 Dec 12 j 21:27	14°♄32'35	8.05713 AU	min. Earth dist.	-817 Mar 02 j 01:13	3°♄06'43	8.76606 AU
direct	-823 Feb 18 j 14:20	11°♄01'02			-817 Apr 22 j 11:28	30°♄♄	
evening set	-823 Jun 04 j 13:07	19°♄15'47		direct	-817 May 11 j 18:40	29°♄41'48	
					-817 May 31 j 00:50	0°♄♄	
conjunction	-823 Jun 22 j 17:30	21°♄35'43	0°-17'-45	evening set	-817 Aug 24 j 22:34	7°♄11'28	
minimum elong	-823 Jun 22 j 17:31	21°♄35'43	0°17'45				
max. Earth dist.	-823 Jun 23 j 05:36	21°♄39'37	10.10113 AU	conjunction	-817 Sep 10 j 23:52	9°♄13'35	2°12'17
morning rise	-823 Jul 10 j 19:17	23°♄54'49		minimum elong	-817 Sep 10 j 23:50	9°♄13'35	2°12'17
	-823 Sep 05 j 09:36	0°♄♄		max. Earth dist.	-817 Sep 11 j 00:02	9°♄13'38	10.82016 AU
retrograde	-823 Oct 21 j 18:14	1°♄55'23		morning rise	-817 Sep 27 j 20:19	11°♄14'19	
	-823 Dec 08 j 01:29	30°♄♄		retrograde	-816 Jan 05 j 00:55	18°♄20'07	
opposition	-823 Dec 27 j 06:09	28°♄29'04	0°-1'-20	opposition	-816 Mar 13 j 13:25	15°♄02'13	2°47'14
min. Earth dist.	-823 Dec 26 j 21:14	28°♄30'53	8.15018 AU	min. Earth dist.	-816 Mar 13 j 14:33	15°♄02'00	8.87309 AU
asc. node	-822 Jan 08 j 10:03	27°♄30'12		direct	-816 May 23 j 13:55	11°♄38'45	
direct	-822 Mar 05 j 02:18	24°♄59'44		evening set	-816 Sep 05 j 04:04	19°♄00'57	
	-822 May 23 j 20:23	0°♄♄					
evening set	-822 Jun 19 j 08:30	3°♄08'59		conjunction	-816 Sep 22 j 00:57	21°♄00'41	2°19'22
				minimum elong	-816 Sep 22 j 00:56	21°♄00'41	2°19'22
conjunction	-822 Jul 07 j 10:17	5°♄26'32	0°15'52	max. Earth dist.	-816 Sep 21 j 22:18	20°♄59'54	10.91913 AU
minimum elong	-822 Jul 07 j 10:16	5°♄26'32	0°15'53	morning rise	-816 Oct 08 j 17:40	22°♄59'13	
max. Earth dist.	-822 Jul 07 j 21:29	5°♄30'06	10.20521 AU	retrograde	-815 Jan 15 j 20:01	0°♄00'01	
morning rise	-822 Jul 25 j 08:25	7°♄42'55			-815 Jan 15 j 05:27	0°♄	

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 8

Attention, astronomical year style is used: The year -815 in astronomical counting style is the year 816 BCE in historical counting style.

	-815 Jan 16 j 10:36	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-810 Dec 14 j 17:01	0° $\mathbb{Z}$ 35'42	
opposition	-815 Mar 25 j 20:00	26° $\mathbb{M}$ 42'47	2°52'04	retrograde	-809 Mar 26 j 01:37	7° $\mathbb{Z}$ 37'59	
min. Earth dist.	-815 Mar 25 j 23:00	26° $\mathbb{M}$ 42'13	8.96389 AU	opposition	-809 Jun 04 j 23:49	4° $\mathbb{Z}$ 19'10	1°12'06
direct	-815 Jun 05 j 02:14	23° $\mathbb{M}$ 20'27		min. Earth dist.	-809 Jun 05 j 07:30	4° $\mathbb{Z}$ 17'45	9.04312 AU
	-815 Sep 11 j 20:14	0° $\mathbb{A}$		direct	-809 Aug 14 j 15:49	1° $\mathbb{Z}$ 00'39	
evening set	-815 Sep 17 j 01:21	0° $\mathbb{A}$ 35'53		evening set	-809 Nov 22 j 21:12	8° $\mathbb{Z}$ 00'01	
conjunction	-815 Oct 03 j 18:45	2° $\mathbb{A}$ 33'44	2°20'36	conjunction	-809 Dec 09 j 11:09	9° $\mathbb{Z}$ 57'04	0°46'10
minimum elong	-815 Oct 03 j 18:45	2° $\mathbb{A}$ 33'44	2°20'36	minimum elong	-809 Dec 09 j 11:11	9° $\mathbb{Z}$ 57'04	0°46'09
max. Earth dist.	-815 Oct 03 j 13:58	2° $\mathbb{A}$ 32'19	11.00037 AU	max. Earth dist.	-809 Dec 09 j 02:03	9° $\mathbb{Z}$ 54'22	11.01155 AU
morning rise	-815 Oct 20 j 08:41	4° $\mathbb{A}$ 30'35		morning rise	-809 Dec 26 j 02:15	11° $\mathbb{Z}$ 54'32	
retrograde	-814 Jan 27 j 11:41	11° $\mathbb{A}$ 27'50		retrograde	-808 Apr 06 j 05:52	19° $\mathbb{Z}$ 02'31	
opposition	-814 Apr 06 j 23:00	8° $\mathbb{A}$ 10'57	2°49'55	opposition	-808 Jun 16 j 04:43	15° $\mathbb{Z}$ 42'42	0°39'49
min. Earth dist.	-814 Apr 07 j 03:05	8° $\mathbb{A}$ 10'12	9.03522 AU	min. Earth dist.	-808 Jun 16 j 12:26	15° $\mathbb{Z}$ 41'16	8.97485 AU
direct	-814 Jun 17 j 10:04	4° $\mathbb{A}$ 49'38		direct	-808 Aug 25 j 08:52	12° $\mathbb{Z}$ 24'09	
evening set	-814 Sep 28 j 15:43	11° $\mathbb{A}$ 59'14		evening set	-808 Dec 03 j 07:13	19° $\mathbb{Z}$ 25'56	
conjunction	-814 Oct 15 j 06:43	13° $\mathbb{A}$ 55'44	2°16'15	conjunction	-808 Dec 19 j 22:36	21° $\mathbb{Z}$ 24'22	0°18'47
minimum elong	-814 Oct 15 j 06:44	13° $\mathbb{A}$ 55'44	2°16'15	minimum elong	-808 Dec 19 j 22:37	21° $\mathbb{Z}$ 24'22	0°18'46
max. Earth dist.	-814 Oct 15 j 01:01	13° $\mathbb{A}$ 54'03	11.06096 AU	max. Earth dist.	-808 Dec 19 j 12:57	21° $\mathbb{Z}$ 21'30	10.93350 AU
morning rise	-814 Oct 31 j 18:42	15° $\mathbb{A}$ 51'25		morning rise	-807 Jan 05 j 16:13	23° $\mathbb{Z}$ 23'31	
retrograde	-813 Feb 08 j 03:40	22° $\mathbb{A}$ 46'34			-807 Mar 21 j 08:51	0° $\mathbb{Z}$	
opposition	-813 Apr 18 j 23:42	19° $\mathbb{A}$ 29'47	2°41'13	retrograde	-807 Apr 18 j 14:21	0° $\mathbb{Z}$ 38'41	
min. Earth dist.	-813 Apr 19 j 04:40	19° $\mathbb{A}$ 28'52	9.08454 AU		-807 May 17 j 05:45	30° $\mathbb{R}$ $\mathbb{Z}$	
direct	-813 Jun 29 j 11:44	16° $\mathbb{A}$ 09'22		opposition	-807 Jun 28 j 13:40	27° $\mathbb{Z}$ 17'40	0°05'20
evening set	-813 Oct 10 j 00:56	23° $\mathbb{A}$ 14'12		min. Earth dist.	-807 Jun 28 j 21:36	27° $\mathbb{Z}$ 16'11	8.88696 AU
conjunction	-813 Oct 26 j 14:15	25° $\mathbb{A}$ 09'51	2°06'40	desc. node	-807 Aug 24 j 17:13	24° $\mathbb{Z}$ 06'47	
minimum elong	-813 Oct 26 j 14:17	25° $\mathbb{A}$ 09'51	2°06'40	direct	-807 Sep 06 j 06:01	23° $\mathbb{Z}$ 58'51	
max. Earth dist.	-813 Oct 26 j 07:41	25° $\mathbb{A}$ 07'55	11.09880 AU		-807 Dec 05 j 16:09	0° $\mathbb{Z}$	
morning rise	-813 Nov 12 j 01:14	27° $\mathbb{A}$ 04'54		evening set	-807 Dec 14 j 22:58	1° $\mathbb{Z}$ 04'41	
	-813 Dec 09 j 00:33	0° $\mathbb{M}$		conjunction	-807 Dec 31 j 16:14	3° $\mathbb{Z}$ 04'51	0°-9'-54
retrograde	-812 Feb 19 j 17:50	3° $\mathbb{M}$ 59'28		minimum elong	-807 Dec 31 j 16:14	3° $\mathbb{Z}$ 04'51	0°09'55
opposition	-812 Apr 29 j 23:10	0° $\mathbb{M}$ 42'33	2°26'28	behind sun begin	-807 Dec 31 j 10:30	3° $\mathbb{Z}$ 03'09	
min. Earth dist.	-812 Apr 30 j 05:44	0° $\mathbb{M}$ 41'20	9.11035 AU	behind sun end	-807 Dec 31 j 21:58	3° $\mathbb{Z}$ 06'34	
	-812 May 09 j 16:16	30° $\mathbb{R}$ $\mathbb{A}$		max. Earth dist.	-807 Dec 31 j 07:02	3° $\mathbb{Z}$ 02'06	10.83718 AU
direct	-812 Jul 10 j 08:26	27° $\mathbb{A}$ 22'52		morning rise	-806 Jan 17 j 12:35	5° $\mathbb{Z}$ 05'58	
	-812 Sep 07 j 02:14	0° $\mathbb{M}$		retrograde	-806 May 01 j 07:30	12° $\mathbb{Z}$ 29'41	
evening set	-812 Oct 20 j 06:47	4° $\mathbb{M}$ 24'12		opposition	-806 Jul 11 j 03:22	9° $\mathbb{Z}$ 07'20	0°-30'-7
conjunction	-812 Nov 05 j 19:07	6° $\mathbb{M}$ 19'29	1°52'17	min. Earth dist.	-806 Jul 11 j 10:36	9° $\mathbb{Z}$ 05'58	8.78272 AU
minimum elong	-812 Nov 05 j 19:09	6° $\mathbb{M}$ 19'30	1°52'18	direct	-806 Sep 18 j 07:53	5° $\mathbb{Z}$ 48'02	
max. Earth dist.	-812 Nov 05 j 10:42	6° $\mathbb{M}$ 17'01	11.11288 AU	evening set	-806 Dec 26 j 21:56	12° $\mathbb{Z}$ 59'25	
morning rise	-812 Nov 22 j 06:10	8° $\mathbb{M}$ 14'27		conjunction	-805 Jan 12 j 17:32	15° $\mathbb{Z}$ 01'39	0°-38'-39
	-811 Feb 16 j 02:44	15° $\mathbb{M}$		minimum elong	-805 Jan 12 j 17:30	15° $\mathbb{Z}$ 01'38	0°38'40
retrograde	-811 Mar 02 j 09:21	15° $\mathbb{M}$ 10'00		max. Earth dist.	-805 Jan 12 j 10:07	14° $\mathbb{Z}$ 59'23	10.72627 AU
	-811 Mar 16 j 18:24	15° $\mathbb{R}$ $\mathbb{M}$		morning rise	-805 Jan 29 j 16:41	17° $\mathbb{Z}$ 05'02	
opposition	-811 May 11 j 22:18	11° $\mathbb{M}$ 52'41	2°06'14	retrograde	-805 May 14 j 09:25	24° $\mathbb{Z}$ 38'24	
min. Earth dist.	-811 May 12 j 06:12	11° $\mathbb{M}$ 51'14	9.11202 AU	opposition	-805 Jul 23 j 22:59	21° $\mathbb{Z}$ 14'37	-1°-5'-12
direct	-811 Jul 22 j 04:06	8° $\mathbb{M}$ 33'33		min. Earth dist.	-805 Jul 24 j 04:27	21° $\mathbb{Z}$ 13'35	8.66632 AU
	-811 Oct 26 j 15:45	15° $\mathbb{M}$		direct	-805 Sep 30 j 13:14	17° $\mathbb{Z}$ 54'41	
evening set	-811 Oct 31 j 10:48	15° $\mathbb{M}$ 32'44		evening set	-804 Jan 08 j 05:46	25° $\mathbb{Z}$ 12'59	
conjunction	-811 Nov 16 j 23:01	17° $\mathbb{M}$ 28'10	1°33'40	conjunction	-804 Jan 25 j 03:54	27° $\mathbb{Z}$ 17'31	-1°-6'-21
minimum elong	-811 Nov 16 j 23:04	17° $\mathbb{M}$ 28'11	1°33'39	minimum elong	-804 Jan 25 j 03:52	27° $\mathbb{Z}$ 17'30	1°06'22
max. Earth dist.	-811 Nov 16 j 13:34	17° $\mathbb{M}$ 25'24	11.10279 AU	max. Earth dist.	-804 Jan 24 j 22:16	27° $\mathbb{Z}$ 15'46	10.60538 AU
morning rise	-811 Dec 03 j 10:55	19° $\mathbb{M}$ 23'32		morning rise	-804 Feb 11 j 06:08	29° $\mathbb{Z}$ 23'22	
retrograde	-810 Mar 14 j 02:39	26° $\mathbb{M}$ 21'39			-804 Feb 16 j 08:13	0° $\approx$	
opposition	-810 May 23 j 22:07	23° $\mathbb{M}$ 03'41	1°41'12	retrograde	-804 May 26 j 19:22	7° $\approx$ 07'11	
min. Earth dist.	-810 May 24 j 06:16	23° $\mathbb{M}$ 02'11	9.08940 AU	opposition	-804 Aug 05 j 00:58	3° $\approx$ 41'57	-1°-38'-16
direct	-810 Aug 02 j 21:47	19° $\mathbb{M}$ 44'57		min. Earth dist.	-804 Aug 05 j 04:36	3° $\approx$ 41'14	8.54273 AU
evening set	-810 Nov 11 j 14:57	26° $\mathbb{M}$ 43'29		direct	-804 Oct 12 j 01:41	0° $\approx$ 21'09	
				evening set	-803 Jan 19 j 23:58	7° $\approx$ 47'36	
conjunction	-810 Nov 28 j 03:50	28° $\mathbb{M}$ 39'30	1°11'24	conjunction	-803 Feb 06 j 00:53	9° $\approx$ 54'37	-1°-31'-34
minimum elong	-810 Nov 28 j 03:52	28° $\mathbb{M}$ 39'30	1°11'22	minimum elong	-803 Feb 06 j 00:50	9° $\approx$ 54'37	1°31'36
max. Earth dist.	-810 Nov 27 j 18:49	28° $\mathbb{M}$ 36'50	11.06865 AU	max. Earth dist.	-803 Feb 05 j 20:22	9° $\approx$ 53'13	10.47992 AU
	-810 Dec 09 j 13:54	0° $\mathbb{Z}$					

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 9

Attention, astronomical year style is used: The year -803 in astronomical counting style is the year 804 BCE in historical counting style.

morning rise	-803 Feb 23 j 06:27	12° $\approx$ 03'08		conjunction	-797 May 02 j 18:16	2° $\approx$ 46'43	-1°-55'-39
	-803 Mar 20 j 13:16	15° $\approx$		minimum elong	-797 May 02 j 18:19	2° $\approx$ 46'45	1°55'40
retrograde	-803 Jun 09 j 14:34	19° $\approx$ 57'35		max. Earth dist.	-797 May 03 j 02:25	2° $\approx$ 49'24	9.96318 AU
opposition	-803 Aug 18 j 09:27	16° $\approx$ 30'57	-2°-7'-30	morning rise	-797 May 20 j 20:41	5° $\approx$ 08'36	
min. Earth dist.	-803 Aug 18 j 11:46	16° $\approx$ 30'30	8.41765 AU	retrograde	-797 Sep 04 j 06:10	13° $\approx$ 34'53	
	-803 Sep 07 j 10:41	15° $\approx$		opposition	-797 Nov 10 j 02:47	10° $\approx$ 04'42	-2°-11'-18
direct	-803 Oct 24 j 20:33	13° $\approx$ 09'06		min. Earth dist.	-797 Nov 09 j 20:01	10° $\approx$ 06'06	7.96182 AU
	-803 Dec 09 j 17:09	15° $\approx$		direct	-796 Jan 15 j 09:43	6° $\approx$ 35'57	
evening set	-802 Feb 02 j 05:11	20° $\approx$ 44'35		evening set	-796 Apr 29 j 01:50	14° $\approx$ 54'03	
					-796 Apr 29 j 20:20	15° $\approx$	
conjunction	-802 Feb 19 j 09:14	22° $\approx$ 54'14	-1°-52'-50	conjunction	-796 May 17 j 05:09	17° $\approx$ 15'59	-1°-32'-44
minimum elong	-802 Feb 19 j 09:11	22° $\approx$ 54'13	1°52'51	minimum elong	-796 May 17 j 05:12	17° $\approx$ 16'00	1°32'45
max. Earth dist.	-802 Feb 19 j 06:11	22° $\approx$ 53'16	10.35587 AU	max. Earth dist.	-796 May 17 j 14:26	17° $\approx$ 19'02	9.96634 AU
morning rise	-802 Mar 08 j 18:20	25° $\approx$ 05'28		morning rise	-796 Jun 04 j 09:20	19° $\approx$ 38'11	
	-802 Apr 21 j 19:09	0° $\approx$		retrograde	-796 Sep 17 j 21:14	27° $\approx$ 59'34	
retrograde	-802 Jun 23 j 17:46	3° $\approx$ 10'12		opposition	-796 Nov 23 j 11:43	24° $\approx$ 30'06	-1°-38'-49
	-802 Aug 28 j 07:25	30° $\approx$		min. Earth dist.	-796 Nov 23 j 04:28	24° $\approx$ 31'36	7.98081 AU
opposition	-802 Sep 01 j 00:42	29° $\approx$ 42'16	-2°-30'-59	direct	-795 Jan 29 j 02:59	21° $\approx$ 00'42	
min. Earth dist.	-802 Sep 01 j 01:50	29° $\approx$ 42'03	8.29715 AU	evening set	-795 May 14 j 09:36	29° $\approx$ 18'57	
direct	-802 Nov 06 j 23:23	26° $\approx$ 19'14			-795 May 19 j 17:16	0° $\approx$	
	-801 Jan 11 j 18:08	0° $\approx$		conjunction	-795 Jun 01 j 14:27	1° $\approx$ 40'41	-1°-4'-8
evening set	-801 Feb 15 j 21:34	4° $\approx$ 04'07		minimum elong	-795 Jun 01 j 14:30	1° $\approx$ 40'42	1°04'08
conjunction	-801 Mar 05 j 05:15	6° $\approx$ 16'26	-2°-8'-37	max. Earth dist.	-795 Jun 02 j 00:16	1° $\approx$ 43'53	10.00193 AU
minimum elong	-801 Mar 05 j 05:12	6° $\approx$ 16'26	2°08'38	morning rise	-795 Jun 19 j 18:53	4° $\approx$ 02'14	
max. Earth dist.	-801 Mar 05 j 04:31	6° $\approx$ 16'13	10.23940 AU	retrograde	-795 Oct 02 j 05:28	12° $\approx$ 16'06	
morning rise	-801 Mar 22 j 17:59	8° $\approx$ 30'22		opposition	-795 Dec 07 j 17:30	8° $\approx$ 47'40	-1°00'-27
retrograde	-801 Jul 08 j 02:47	16° $\approx$ 44'17		min. Earth dist.	-795 Dec 07 j 10:03	8° $\approx$ 49'12	8.03127 AU
opposition	-801 Sep 14 j 22:04	13° $\approx$ 15'14	-2°-46'-51	direct	-794 Feb 12 j 20:02	5° $\approx$ 17'55	
min. Earth dist.	-801 Sep 14 j 21:37	13° $\approx$ 15'19	8.18720 AU	evening set	-794 May 29 j 14:02	13° $\approx$ 33'48	
direct	-801 Nov 20 j 12:20	9° $\approx$ 50'54		conjunction	-794 Jun 16 j 18:48	15° $\approx$ 54'22	0°-31'-54
evening set	-800 Mar 01 j 01:10	17° $\approx$ 45'04		minimum elong	-794 Jun 16 j 18:49	15° $\approx$ 54'23	0°31'55
conjunction	-800 Mar 18 j 12:57	20° $\approx$ 00'03	-2°-17'-33	max. Earth dist.	-794 Jun 17 j 04:35	15° $\approx$ 57'32	10.06744 AU
minimum elong	-800 Mar 18 j 12:56	20° $\approx$ 00'02	2°17'35	morning rise	-794 Jul 04 j 21:50	18° $\approx$ 14'20	
max. Earth dist.	-800 Mar 18 j 14:44	20° $\approx$ 00'37	10.13633 AU	retrograde	-794 Oct 16 j 06:21	26° $\approx$ 18'48	
morning rise	-800 Apr 05 j 05:24	22° $\approx$ 16'32		opposition	-794 Dec 21 j 18:33	22° $\approx$ 51'39	0°-19'-4
	-800 Jun 25 j 01:52	0° $\approx$		min. Earth dist.	-794 Dec 21 j 10:51	22° $\approx$ 53'13	8.10970 AU
retrograde	-800 Jul 21 j 17:22	0° $\approx$ 37'46		direct	-793 Feb 27 j 10:25	19° $\approx$ 21'53	
	-800 Aug 17 j 12:28	30° $\approx$		asc. node	-793 Jun 12 j 12:46	27° $\approx$ 25'51	
opposition	-800 Sep 28 j 00:32	27° $\approx$ 07'52	-2°-53'-29	evening set	-793 Jun 13 j 12:14	27° $\approx$ 33'12	
min. Earth dist.	-800 Sep 27 j 22:22	27° $\approx$ 08'18	8.09320 AU	conjunction	-793 Jul 01 j 15:16	29° $\approx$ 51'47	0°01'44
direct	-800 Dec 03 j 08:26	23° $\approx$ 42'16		minimum elong	-793 Jul 01 j 15:16	29° $\approx$ 51'47	0°01'45
	-799 Mar 01 j 14:49	0° $\approx$		behind sun begin	-793 Jul 01 j 07:55	29° $\approx$ 49'27	
evening set	-799 Mar 15 j 14:59	1° $\approx$ 45'02		behind sun end	-793 Jul 01 j 22:36	29° $\approx$ 54'06	
conjunction	-799 Apr 02 j 07:09	4° $\approx$ 02'32	-2°-18'-36	max. Earth dist.	-793 Jul 02 j 00:48	29° $\approx$ 54'49	10.15824 AU
minimum elong	-799 Apr 02 j 07:10	4° $\approx$ 02'32	2°18'38		-793 Jul 02 j 16:56	0° $\approx$	
max. Earth dist.	-799 Apr 02 j 11:21	4° $\approx$ 03'54	10.05208 AU	morning rise	-793 Jul 19 j 15:18	2° $\approx$ 09'21	
morning rise	-799 Apr 20 j 03:18	6° $\approx$ 21'20		retrograde	-793 Oct 29 j 23:11	10° $\approx$ 03'24	
retrograde	-799 Aug 05 j 12:54	14° $\approx$ 47'27		opposition	-792 Jan 04 j 13:50	6° $\approx$ 37'41	0°22'28
opposition	-799 Oct 12 j 07:16	11° $\approx$ 17'04	-2°-49'-48	min. Earth dist.	-792 Jan 04 j 06:09	6° $\approx$ 39'15	8.21068 AU
min. Earth dist.	-799 Oct 12 j 03:08	11° $\approx$ 17'56	8.02070 AU	direct	-792 Mar 12 j 20:23	3° $\approx$ 08'14	
direct	-799 Dec 17 j 10:54	7° $\approx$ 50'18		evening set	-792 Jun 27 j 02:01	11° $\approx$ 13'18	
evening set	-798 Mar 30 j 13:17	16° $\approx$ 00'20		conjunction	-792 Jul 15 j 01:43	13° $\approx$ 29'11	0°34'30
conjunction	-798 Apr 17 j 09:45	18° $\approx$ 19'58	-2°-11'-15	minimum elong	-792 Jul 15 j 01:41	13° $\approx$ 29'10	0°34'32
minimum elong	-798 Apr 17 j 09:47	18° $\approx$ 19'59	2°11'16	max. Earth dist.	-792 Jul 15 j 10:42	13° $\approx$ 32'02	10.26821 AU
max. Earth dist.	-798 Apr 17 j 16:10	18° $\approx$ 22'04	9.99263 AU	morning rise	-792 Aug 01 j 21:21	15° $\approx$ 43'46	
morning rise	-798 May 05 j 09:20	20° $\approx$ 40'39		retrograde	-792 Nov 11 j 06:43	23° $\approx$ 27'09	
retrograde	-798 Aug 20 j 10:08	29° $\approx$ 08'34		opposition	-791 Jan 17 j 02:43	20° $\approx$ 02'58	1°01'41
opposition	-798 Oct 26 j 16:41	25° $\approx$ 38'05	-2°-35'-31	min. Earth dist.	-791 Jan 16 j 19:37	20° $\approx$ 04'23	8.32784 AU
min. Earth dist.	-798 Oct 26 j 10:54	25° $\approx$ 39'17	7.97555 AU	direct	-791 Mar 27 j 00:29	16° $\approx$ 34'08	
direct	-798 Dec 31 j 19:28	22° $\approx$ 10'15		evening set	-791 Jul 11 j 05:39	24° $\approx$ 31'45	
	-797 Apr 11 j 10:13	0° $\approx$		conjunction	-791 Jul 29 j 00:51	26° $\approx$ 44'30	1°04'41
evening set	-797 Apr 14 j 17:55	0° $\approx$ 25'32					

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 10

Attention, astronomical year style is used: The year -791 in astronomical counting style is the year 792 BCE in historical counting style.

minimum elong	-791 Jul 29 j 00:48	26° <del>5</del> 44'29	1°04'42	evening set	-785 Sep 24 j 00:24	7° <del>5</del> 17'12	
max. Earth dist.	-791 Jul 29 j 08:48	26° <del>5</del> 47'00	10.39077 AU				
morning rise	-791 Aug 15 j 15:14	28° <del>5</del> 55'47		conjunction	-785 Oct 10 j 16:19	9° <del>5</del> 14'06	2°18'45
	-791 Aug 24 j 11:56	0° <del>0</del>		minimum elong	-785 Oct 10 j 16:20	9° <del>5</del> 14'07	2°18'44
retrograde	-791 Nov 24 j 06:06	6° <del>0</del> 28'53		max. Earth dist.	-785 Oct 10 j 12:07	9° <del>5</del> 12'52	11.04641 AU
opposition	-790 Jan 30 j 08:59	3° <del>0</del> 06'13	1°36'30	morning rise	-785 Oct 27 j 04:59	11° <del>5</del> 10'07	
min. Earth dist.	-790 Jan 30 j 03:20	3° <del>0</del> 07'20	8.45449 AU	retrograde	-784 Feb 03 j 10:50	18° <del>5</del> 05'28	
	-790 Mar 20 j 05:00	30° <del>0</del> 00		opposition	-784 Apr 13 j 03:08	14° <del>5</del> 48'56	2°45'40
direct	-790 Apr 09 j 20:35	29° <del>5</del> 38'16		min. Earth dist.	-784 Apr 13 j 07:41	14° <del>5</del> 48'06	9.07726 AU
	-790 Apr 30 j 12:11	0° <del>0</del>		direct	-784 Jun 23 j 14:00	11° <del>5</del> 28'24	
evening set	-790 Jul 24 j 22:14	7° <del>0</del> 27'43		evening set	-784 Oct 04 j 11:20	18° <del>5</del> 34'43	
conjunction	-790 Aug 11 j 12:12	9° <del>0</del> 237'11	1°30'48	conjunction	-784 Oct 21 j 01:06	20° <del>5</del> 30'32	2°11'23
minimum elong	-790 Aug 11 j 12:09	9° <del>0</del> 237'10	1°30'49	minimum elong	-784 Oct 21 j 01:08	20° <del>5</del> 30'32	2°11'23
max. Earth dist.	-790 Aug 11 j 18:16	9° <del>0</del> 239'04	10.51919 AU	max. Earth dist.	-784 Oct 20 j 18:54	20° <del>5</del> 28'42	11.09880 AU
morning rise	-790 Aug 28 j 21:05	11° <del>0</del> 245'06		morning rise	-784 Nov 06 j 12:31	22° <del>5</del> 25'40	
	-790 Sep 26 j 10:14	15° <del>0</del>		retrograde	-783 Feb 14 j 00:03	29° <del>5</del> 19'46	
retrograde	-790 Dec 06 j 21:23	19° <del>0</del> 208'42		opposition	-783 Apr 25 j 02:38	26° <del>5</del> 03'20	2°33'28
opposition	-789 Feb 12 j 08:45	15° <del>0</del> 247'31	2°05'30	min. Earth dist.	-783 Apr 25 j 08:04	26° <del>5</del> 02'20	9.11774 AU
min. Earth dist.	-789 Feb 12 j 05:07	15° <del>0</del> 248'13	8.58385 AU	direct	-783 Jul 05 j 13:16	22° <del>5</del> 43'48	
	-789 Feb 22 j 13:36	15° <del>0</del> 00		evening set	-783 Oct 15 j 18:11	29° <del>5</del> 46'01	
direct	-789 Apr 23 j 08:54	12° <del>0</del> 220'38			-783 Oct 17 j 18:57	0° <del>0</del>	
	-789 Jun 20 j 12:47	15° <del>0</del>					
evening set	-789 Aug 07 j 03:51	20° <del>0</del> 201'44		conjunction	-783 Nov 01 j 06:51	1° <del>0</del> 241'14	1°59'02
conjunction	-789 Aug 24 j 12:19	22° <del>0</del> 207'58	1°51'54	minimum elong	-783 Nov 01 j 06:53	1° <del>0</del> 241'14	1°59'02
minimum elong	-789 Aug 24 j 12:16	22° <del>0</del> 207'57	1°51'55	max. Earth dist.	-783 Nov 01 j 00:05	1° <del>0</del> 239'15	11.12731 AU
max. Earth dist.	-789 Aug 24 j 15:31	22° <del>0</del> 208'56	10.64700 AU	morning rise	-783 Nov 17 j 17:45	3° <del>0</del> 236'00	
morning rise	-789 Sep 10 j 15:51	24° <del>0</del> 212'41		retrograde	-782 Feb 25 j 16:25	10° <del>0</del> 230'21	
	-789 Nov 07 j 22:31	0° <del>0</del> 00		opposition	-782 May 07 j 01:13	7° <del>0</del> 213'46	2°15'34
retrograde	-789 Dec 19 j 03:20	1° <del>0</del> 207'53		min. Earth dist.	-782 May 07 j 07:17	7° <del>0</del> 212'39	9.13351 AU
	-788 Jan 30 j 10:28	30° <del>0</del> 00		direct	-782 Jul 17 j 09:54	3° <del>0</del> 255'00	
opposition	-788 Feb 25 j 02:18	28° <del>0</del> 208'02	2°27'47	evening set	-782 Oct 26 j 22:39	10° <del>0</del> 254'24	
min. Earth dist.	-788 Feb 25 j 00:14	28° <del>0</del> 208'26	8.70966 AU	conjunction	-782 Nov 12 j 10:56	12° <del>0</del> 249'32	1°42'14
direct	-788 May 05 j 14:42	24° <del>0</del> 242'24		minimum elong	-782 Nov 12 j 10:58	12° <del>0</del> 249'33	1°42'13
	-788 Jul 30 j 03:31	0° <del>0</del> 00		max. Earth dist.	-782 Nov 12 j 03:17	12° <del>0</del> 247'18	11.13074 AU
evening set	-788 Aug 18 j 22:40	2° <del>0</del> 215'16		morning rise	-782 Nov 28 j 22:09	14° <del>0</del> 244'27	
conjunction	-788 Sep 05 j 01:57	4° <del>0</del> 218'31	2°07'23		-782 Dec 01 j 04:36	15° <del>0</del>	
minimum elong	-788 Sep 05 j 01:55	4° <del>0</del> 218'30	2°07'24	retrograde	-781 Mar 09 j 08:54	21° <del>0</del> 240'34	
max. Earth dist.	-788 Sep 05 j 02:54	4° <del>0</del> 218'48	10.76842 AU	opposition	-781 May 19 j 00:24	18° <del>0</del> 223'33	1°52'35
morning rise	-788 Sep 22 j 00:34	6° <del>0</del> 220'21		min. Earth dist.	-781 May 19 j 07:43	18° <del>0</del> 222'13	9.12378 AU
retrograde	-788 Dec 30 j 05:09	13° <del>0</del> 228'28		direct	-781 Jul 29 j 01:59	15° <del>0</del> 205'19	
opposition	-787 Mar 08 j 14:30	10° <del>0</del> 209'48	2°42'54	evening set	-781 Nov 07 j 02:26	22° <del>0</del> 203'19	
min. Earth dist.	-787 Mar 08 j 13:26	10° <del>0</del> 210'00	8.82631 AU	conjunction	-781 Nov 23 j 14:48	23° <del>0</del> 258'48	1°21'31
direct	-787 May 18 j 13:25	6° <del>0</del> 245'30		minimum elong	-781 Nov 23 j 14:51	23° <del>0</del> 258'49	1°21'30
evening set	-787 Aug 31 j 07:20	14° <del>0</del> 210'30		max. Earth dist.	-781 Nov 23 j 05:23	23° <del>0</del> 256'02	11.10862 AU
conjunction	-787 Sep 17 j 06:09	16° <del>0</del> 211'11	2°17'00	morning rise	-781 Dec 10 j 03:14	25° <del>0</del> 254'21	
minimum elong	-787 Sep 17 j 06:07	16° <del>0</del> 211'10	2°16'59		-780 Jan 18 j 14:26	0° <del>0</del> 00	
max. Earth dist.	-787 Sep 17 j 05:49	16° <del>0</del> 211'05	10.87825 AU	retrograde	-780 Mar 20 j 04:09	2° <del>0</del> 253'52	
morning rise	-787 Oct 04 j 00:28	18° <del>0</del> 210'33			-780 May 24 j 14:33	30° <del>0</del> 00	
retrograde	-786 Jan 11 j 02:45	25° <del>0</del> 212'59		opposition	-780 May 30 j 01:06	29° <del>0</del> 236'07	1°25'14
opposition	-786 Mar 20 j 22:02	21° <del>0</del> 255'15	2°50'47	min. Earth dist.	-780 May 30 j 09:54	29° <del>0</del> 234'30	9.08843 AU
min. Earth dist.	-786 Mar 20 j 22:22	21° <del>0</del> 255'11	8.92893 AU	direct	-780 Aug 08 j 19:46	26° <del>0</del> 218'07	
direct	-786 May 31 j 02:53	18° <del>0</del> 232'19			-780 Oct 17 j 20:27	0° <del>0</del> 00	
evening set	-786 Sep 12 j 07:29	25° <del>0</del> 250'09		evening set	-780 Nov 17 j 07:24	3° <del>0</del> 216'16	
conjunction	-786 Sep 29 j 02:30	27° <del>0</del> 248'42	2°20'43	conjunction	-780 Dec 03 j 20:35	5° <del>0</del> 212'35	0°57'32
minimum elong	-786 Sep 29 j 02:30	27° <del>0</del> 248'42	2°20'43	minimum elong	-780 Dec 03 j 20:37	5° <del>0</del> 212'35	0°57'31
max. Earth dist.	-786 Sep 29 j 00:44	27° <del>0</del> 248'11	10.97205 AU	max. Earth dist.	-780 Dec 03 j 10:07	5° <del>0</del> 209'29	11.06108 AU
morning rise	-786 Oct 15 j 17:26	29° <del>0</del> 246'08		morning rise	-780 Dec 20 j 10:49	7° <del>0</del> 209'14	
	-786 Oct 17 j 17:24	0° <del>0</del> 00		retrograde	-779 Apr 01 j 04:58	14° <del>0</del> 213'45	
retrograde	-785 Jan 22 j 19:38	6° <del>0</del> 244'17		opposition	-779 Jun 11 j 04:07	10° <del>0</del> 255'01	0°54'19
opposition	-785 Apr 02 j 01:50	3° <del>0</del> 227'17	2°51'36	min. Earth dist.	-779 Jun 11 j 13:16	10° <del>0</del> 253'20	9.02809 AU
min. Earth dist.	-785 Apr 02 j 04:25	3° <del>0</del> 226'48	9.01358 AU	direct	-779 Aug 20 j 13:59	7° <del>0</del> 237'01	
direct	-785 Jun 12 j 10:39	0° <del>0</del> 205'36		evening set	-779 Nov 28 j 15:17	14° <del>0</del> 236'58	

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 11

Attention, astronomical year style is used: The year -779 in astronomical counting style is the year 780 BCE in historical counting style.

conjunction	-779 Dec 15 j 05:58	16°♂34'33	0°31'03		-772 Feb 23 j 09:29	0°♂	
minimum elong	-779 Dec 15 j 05:59	16°♂34'33	0°31'02				
max. Earth dist.	-779 Dec 14 j 19:46	16°♂31'31	10.98931 AU	conjunction	-772 Feb 27 j 09:23	0°♂30'36	-2°-2'-21
morning rise	-779 Dec 31 j 22:18	18°♂32'42		minimum elong	-772 Feb 27 j 09:21	0°♂30'35	2°02'23
retrograde	-778 Apr 13 j 11:24	25°♂43'52		max. Earth dist.	-772 Feb 27 j 07:19	0°♂29'56	10.27637 AU
opposition	-778 Jun 23 j 10:48	22°♂23'54	0°20'45	morning rise	-772 Mar 15 j 20:22	2°♂43'27	
min. Earth dist.	-778 Jun 23 j 19:23	22°♂22'19	8.94486 AU	retrograde	-772 Jul 01 j 01:08	10°♂53'56	
direct	-778 Sep 01 j 09:44	19°♂05'40		opposition	-772 Sep 08 j 02:11	7°♂24'45	-2°-40'-55
evening set	-778 Dec 10 j 04:04	26°♂09'01		min. Earth dist.	-772 Sep 08 j 02:23	7°♂24'43	8.21866 AU
				direct	-772 Nov 13 j 20:36	4°♂00'26	
conjunction	-778 Dec 26 j 20:28	28°♂08'13	0°02'56	evening set	-771 Feb 23 j 02:05	11°♂51'03	
minimum elong	-778 Dec 26 j 20:29	28°♂08'14	0°02'56				
behind sun begin	-778 Dec 26 j 13:31	28°♂06'10		conjunction	-771 Mar 12 j 12:00	14°♂05'04	-2°-14'-31
behind sun end	-778 Dec 27 j 03:28	28°♂10'18		minimum elong	-771 Mar 12 j 11:58	14°♂05'03	2°14'33
max. Earth dist.	-778 Dec 26 j 10:41	28°♂05'18	10.89624 AU	max. Earth dist.	-771 Mar 12 j 11:55	14°♂05'02	10.16254 AU
	-777 Jan 11 j 11:15	0°♂		morning rise	-771 Mar 30 j 02:46	16°♂20'38	
morning rise	-777 Jan 12 j 15:18	0°♂08'15		retrograde	-771 Jul 15 j 14:34	24°♂39'37	
desc. node	-777 Feb 02 j 14:56	2°♂30'09		opposition	-771 Sep 22 j 02:41	21°♂09'24	-2°-51'-53
retrograde	-777 Apr 26 j 01:59	7°♂27'31		min. Earth dist.	-771 Sep 22 j 01:15	21°♂09'42	8.11380 AU
opposition	-777 Jul 05 j 22:13	4°♂06'07	0°-14'-22	direct	-771 Nov 27 j 12:24	17°♂43'45	
min. Earth dist.	-777 Jul 06 j 06:07	4°♂04'38	8.84243 AU	evening set	-770 Mar 09 j 11:39	25°♂43'34	
direct	-777 Sep 13 j 08:28	0°♂47'21					
evening set	-777 Dec 21 j 23:32	7°♂55'39		conjunction	-770 Mar 27 j 01:44	28°♂00'12	-2°-19'-13
				minimum elong	-770 Mar 27 j 01:44	28°♂00'12	2°19'14
conjunction	-776 Jan 07 j 17:56	9°♂56'49	0°-25'-56	max. Earth dist.	-770 Mar 27 j 03:52	28°♂00'54	10.06741 AU
minimum elong	-776 Jan 07 j 17:55	9°♂56'49	0°25'57		-770 Apr 11 j 11:16	0°♀	
max. Earth dist.	-776 Jan 07 j 07:57	9°♂53'48	10.78602 AU	morning rise	-770 Apr 13 j 20:23	0°♀18'17	
morning rise	-776 Jan 24 j 15:42	11°♂59'03		retrograde	-770 Jul 30 j 08:56	8°♀43'25	
retrograde	-776 May 07 j 23:17	19°♂27'36		opposition	-770 Oct 06 j 08:11	5°♀12'33	-2°-52'-54
opposition	-776 Jul 17 j 15:05	16°♂04'37	0°-49'-45	min. Earth dist.	-770 Oct 06 j 05:10	5°♀13'10	8.03057 AU
min. Earth dist.	-776 Jul 17 j 22:42	16°♂03'11	8.72534 AU	direct	-770 Dec 11 j 12:30	1°♀45'39	
direct	-776 Sep 24 j 11:00	12°♂45'03		evening set	-769 Mar 24 j 06:30	9°♀53'26	
evening set	-775 Jan 02 j 03:04	19°♂59'50					
				conjunction	-769 Apr 11 j 01:00	12°♀12'23	-2°-15'-37
conjunction	-775 Jan 18 j 23:52	22°♂03'13	0°-54'-14	minimum elong	-769 Apr 11 j 01:02	12°♀12'24	2°15'38
minimum elong	-775 Jan 18 j 23:50	22°♂03'13	0°54'16	max. Earth dist.	-769 Apr 11 j 05:44	12°♀13'57	9.99702 AU
max. Earth dist.	-775 Jan 18 j 14:49	22°♂00'27	10.66334 AU	morning rise	-769 Apr 28 j 23:21	14°♀32'35	
morning rise	-775 Feb 05 j 00:47	24°♂07'54		retrograde	-769 Aug 14 j 05:23	23°♀00'53	
	-775 Apr 04 j 02:34	0°♀		opposition	-769 Oct 20 j 16:59	19°♀29'47	-2°-43'-18
retrograde	-775 May 21 j 03:42	1°♀46'43		min. Earth dist.	-769 Oct 20 j 12:18	19°♀30'45	7.97436 AU
	-775 Jul 08 j 09:53	30°♀♂		direct	-769 Dec 25 j 20:05	16°♀01'47	
opposition	-775 Jul 30 j 14:00	28°♂22'04	-1°-23'-53	evening set	-768 Apr 07 j 08:54	24°♀15'44	
min. Earth dist.	-775 Jul 30 j 20:40	28°♂20'48	8.59853 AU				
direct	-775 Oct 06 j 21:27	25°♂01'29		conjunction	-768 Apr 25 j 07:38	26°♀36'31	-2°-3'-36
	-775 Dec 25 j 03:24	0°♀		minimum elong	-768 Apr 25 j 07:41	26°♀36'32	2°03'37
evening set	-774 Jan 14 j 16:13	2°♀24'04		max. Earth dist.	-768 Apr 25 j 15:02	26°♀38'57	9.95605 AU
				morning rise	-768 May 13 j 09:08	28°♀58'11	
conjunction	-774 Jan 31 j 15:48	4°♀29'56	-1°-20'-43		-768 May 21 j 11:12	0°♂	
minimum elong	-774 Jan 31 j 15:45	4°♀29'55	1°20'45	retrograde	-768 Aug 28 j 01:28	7°♂26'17	
max. Earth dist.	-774 Jan 31 j 08:56	4°♀27'48	10.53339 AU	opposition	-768 Nov 03 j 03:12	3°♂55'24	-2°-23'-18
morning rise	-774 Feb 17 j 19:51	6°♀37'14		min. Earth dist.	-768 Nov 02 j 20:40	3°♂56'46	7.94903 AU
retrograde	-774 Jun 03 j 18:22	14°♀26'51		direct	-767 Jan 08 j 09:15	0°♂26'33	
opposition	-774 Aug 12 j 19:21	11°♀00'34	-1°-55'-4	evening set	-767 Apr 22 j 15:54	8°♂44'20	
min. Earth dist.	-774 Aug 13 j 00:06	10°♀59'38	8.46760 AU				
direct	-774 Oct 19 j 13:49	7°♀38'49		conjunction	-767 May 10 j 18:10	11°♂06'13	-1°-43'-45
	-773 Jan 26 j 06:46	15°♀		minimum elong	-767 May 10 j 18:13	11°♂06'15	1°43'46
evening set	-773 Jan 27 j 16:03	15°♀10'14		max. Earth dist.	-767 May 11 j 03:54	11°♂09'26	9.94748 AU
				morning rise	-767 May 28 j 21:50	13°♂28'35	
conjunction	-773 Feb 13 j 18:44	17°♀18'45	-1°-43'-56		-767 Jun 09 j 22:56	15°♂	
minimum elong	-773 Feb 13 j 18:42	17°♀18'44	1°43'58	retrograde	-767 Sep 11 j 18:40	21°♂53'09	
max. Earth dist.	-773 Feb 13 j 14:32	17°♀17'26	10.40222 AU	opposition	-767 Nov 17 j 13:10	18°♂22'56	-1°-54'-10
morning rise	-773 Mar 03 j 02:06	19°♀28'49		min. Earth dist.	-767 Nov 17 j 05:01	18°♂24'38	7.95656 AU
retrograde	-773 Jun 17 j 17:57	27°♀29'15			-766 Jan 12 j 07:37	15°♀♂	
opposition	-773 Aug 26 j 07:29	24°♀01'24	-2°-21'-23	direct	-766 Jan 23 j 01:11	14°♂53'31	
min. Earth dist.	-773 Aug 26 j 09:43	24°♀00'57	8.33881 AU		-766 Feb 02 j 17:12	15°♂	
direct	-773 Nov 01 j 12:53	20°♀38'24		evening set	-766 May 08 j 00:12	23°♂12'30	
evening set	-772 Feb 10 j 03:15	28°♀19'20					

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 12

Attention, astronomical year style is used: The year -766 in astronomical counting style is the year 767 BCE in historical counting style.

conjunction	-766 May 26 j 04:46	25°♄34'38	-1°-17'-24	opposition	-760 Feb 07 j 04:05	10°♄36'17	1°53'37
minimum elong	-766 May 26 j 04:49	25°♄34'39	1°17'24	min. Earth dist.	-760 Feb 06 j 22:40	10°♄37'21	8.53562 AU
max. Earth dist.	-766 May 26 j 16:15	25°♄38'24	9.97208 AU	direct	-760 Apr 16 j 23:01	7°♄09'26	
morning rise	-766 Jun 13 j 09:18	27°♄56'44		evening set	-760 Jul 31 j 21:22	14°♄54'12	
	-766 Jun 29 j 20:01	0°♄			-760 Aug 01 j 16:41	15°♄	
retrograde	-766 Sep 26 j 07:13	6°♄14'53					
opposition	-766 Dec 01 j 20:53	2°♄45'43	-1°-18'00	conjunction	-760 Aug 18 j 08:18	17°♄01'47	1°43'22
min. Earth dist.	-766 Dec 01 j 11:45	2°♄47'37	7.99669 AU	minimum elong	-760 Aug 18 j 08:14	17°♄01'46	1°43'22
	-765 Jan 09 j 09:29	30°♄		max. Earth dist.	-760 Aug 18 j 13:10	17°♄03'17	10.60030 AU
direct	-765 Feb 06 j 17:20	29°♄16'01		morning rise	-760 Sep 04 j 14:06	19°♄07'50	
	-765 Mar 07 j 00:11	0°♄		retrograde	-760 Dec 13 j 07:53	26°♄26'35	
evening set	-765 May 23 j 06:58	7°♄33'42		opposition	-759 Feb 19 j 00:41	23°♄06'37	2°18'53
				min. Earth dist.	-759 Feb 18 j 21:19	23°♄07'16	8.66391 AU
conjunction	-765 Jun 10 j 12:14	9°♄55'04	0°-46'-26	direct	-759 Apr 30 j 07:37	19°♄40'54	
minimum elong	-765 Jun 10 j 12:16	9°♄55'05	0°46'27	evening set	-759 Aug 13 j 21:12	27°♄17'19	
max. Earth dist.	-765 Jun 11 j 00:30	9°♄59'04	10.02827 AU				
morning rise	-765 Jun 28 j 16:03	12°♄15'59		conjunction	-759 Aug 31 j 02:51	29°♄21'49	2°01'19
retrograde	-765 Oct 10 j 13:43	20°♄25'23		minimum elong	-759 Aug 31 j 02:48	29°♄21'48	2°01'20
opposition	-765 Dec 16 j 00:35	16°♄57'37	0°-37'-30	max. Earth dist.	-759 Aug 31 j 05:18	29°♄22'33	10.72410 AU
min. Earth dist.	-765 Dec 15 j 15:29	16°♄59'30	8.06683 AU		-759 Sep 05 j 08:50	0°♄	
direct	-764 Feb 21 j 08:32	13°♄27'56		morning rise	-759 Sep 17 j 03:23	1°♄24'50	
evening set	-764 Jun 06 j 09:00	21°♄41'59		retrograde	-759 Dec 25 j 12:41	8°♄35'57	
				opposition	-758 Mar 03 j 15:28	5°♄17'13	2°37'08
conjunction	-764 Jun 24 j 13:08	24°♄01'40	0°-13'-8	min. Earth dist.	-758 Mar 03 j 14:45	5°♄17'21	8.78304 AU
minimum elong	-764 Jun 24 j 13:08	24°♄01'40	0°13'08	direct	-758 May 13 j 08:31	1°♄52'43	
behind sun begin	-764 Jun 24 j 08:56	24°♄00'20		evening set	-758 Aug 26 j 10:48	9°♄21'13	
behind sun end	-764 Jun 24 j 17:20	24°♄03'01					
max. Earth dist.	-764 Jun 25 j 00:59	24°♄05'29	10.11220 AU	conjunction	-758 Sep 12 j 11:31	11°♄22'59	2°13'29
morning rise	-764 Jul 12 j 14:36	26°♄20'29		minimum elong	-758 Sep 12 j 11:29	11°♄22'59	2°13'29
	-764 Aug 12 j 12:32	0°♄		max. Earth dist.	-758 Sep 12 j 10:52	11°♄22'48	10.83642 AU
retrograde	-764 Oct 23 j 11:39	4°♄19'44		morning rise	-758 Sep 29 j 07:35	13°♄23'23	
asc. node	-764 Nov 19 j 06:17	3°♄40'14		retrograde	-757 Jan 06 j 11:12	20°♄28'18	
opposition	-764 Dec 28 j 23:13	0°♄53'33	0°04'22	opposition	-757 Mar 16 j 01:26	17°♄10'31	2°48'09
min. Earth dist.	-764 Dec 28 j 14:54	0°♄55'15	8.16237 AU	min. Earth dist.	-757 Mar 16 j 03:03	17°♄10'13	8.88857 AU
	-763 Jan 09 j 00:13	30°♄		direct	-757 May 26 j 02:25	13°♄47'14	
direct	-763 Mar 06 j 20:58	27°♄24'13		evening set	-757 Sep 07 j 15:10	21°♄08'25	
	-763 May 01 j 13:33	0°♄					
evening set	-763 Jun 21 j 03:23	5°♄32'38		conjunction	-757 Sep 24 j 11:37	23°♄07'52	2°19'44
				minimum elong	-757 Sep 24 j 11:36	23°♄07'52	2°19'43
conjunction	-763 Jul 09 j 04:40	7°♄49'50	0°20'21	max. Earth dist.	-757 Sep 24 j 08:12	23°♄06'51	10.93346 AU
minimum elong	-763 Jul 09 j 04:38	7°♄49'49	0°20'22	morning rise	-757 Oct 11 j 04:04	25°♄06'08	
max. Earth dist.	-763 Jul 09 j 15:07	7°♄53'09	10.21837 AU		-757 Nov 28 j 12:39	0°♄	
morning rise	-763 Jul 27 j 02:23	10°♄05'52		retrograde	-756 Jan 18 j 05:16	2°♄06'16	
retrograde	-763 Nov 05 j 23:17	17°♄54'21			-756 Mar 11 j 03:59	30°♄	
opposition	-762 Jan 11 j 15:39	14°♄29'50	0°44'57	opposition	-756 Mar 27 j 07:16	28°♄49'09	2°51'58
min. Earth dist.	-762 Jan 11 j 08:10	14°♄31'21	8.27721 AU	min. Earth dist.	-756 Mar 27 j 10:07	28°♄48'37	8.97698 AU
direct	-762 Mar 21 j 05:18	11°♄01'07		direct	-756 Jun 06 j 15:09	25°♄27'00	
evening set	-762 Jul 05 j 12:20	19°♄02'26			-756 Aug 24 j 23:28	0°♄	
				evening set	-756 Sep 18 j 11:27	2°♄41'35	
conjunction	-762 Jul 23 j 09:30	21°♄16'36	0°51'55				
minimum elong	-762 Jul 23 j 09:27	21°♄16'35	0°51'56	conjunction	-756 Oct 05 j 04:39	4°♄39'14	2°20'10
max. Earth dist.	-762 Jul 23 j 18:06	21°♄19'18	10.34013 AU	minimum elong	-756 Oct 05 j 04:40	4°♄39'14	2°20'10
morning rise	-762 Aug 10 j 02:25	23°♄29'24		max. Earth dist.	-756 Oct 05 j 00:02	4°♄37'52	11.01202 AU
	-762 Oct 14 j 18:35	0°♄		morning rise	-756 Oct 21 j 18:18	6°♄35'52	
retrograde	-762 Nov 19 j 01:31	1°♄07'11		retrograde	-755 Jan 28 j 23:03	13°♄32'40	
	-762 Dec 24 j 22:17	30°♄		opposition	-755 Apr 08 j 09:56	10°♄15'54	2°48'54
opposition	-761 Jan 25 j 01:11	27°♄44'18	1°21'56	min. Earth dist.	-755 Apr 08 j 13:54	10°♄15'10	9.04531 AU
min. Earth dist.	-761 Jan 24 j 18:40	27°♄45'36	8.40421 AU	direct	-755 Jun 18 j 21:15	6°♄54'48	
direct	-761 Apr 04 j 06:20	24°♄16'25		evening set	-755 Sep 30 j 01:03	14°♄03'40	
	-761 Jul 01 j 02:12	0°♄					
evening set	-761 Jul 19 j 10:32	2°♄09'40		conjunction	-755 Oct 16 j 15:55	16°♄00'02	2°15'04
				minimum elong	-755 Oct 16 j 15:57	16°♄00'03	2°15'04
conjunction	-761 Aug 06 j 02:46	4°♄20'33	1°19'58	max. Earth dist.	-755 Oct 16 j 10:16	15°♄58'23	11.06944 AU
minimum elong	-761 Aug 06 j 02:43	4°♄20'32	1°19'59	morning rise	-755 Nov 02 j 03:44	17°♄55'36	
max. Earth dist.	-761 Aug 06 j 09:22	4°♄22'36	10.47002 AU	retrograde	-754 Feb 09 j 13:09	24°♄50'30	
morning rise	-761 Aug 23 j 14:14	6°♄29'56		opposition	-754 Apr 20 j 10:24	21°♄33'50	2°39'20
retrograde	-761 Dec 01 j 20:39	13°♄57'39		min. Earth dist.	-754 Apr 20 j 16:04	21°♄32'47	9.09130 AU



## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 13

Attention, astronomical year style is used: The year -754 in astronomical counting style is the year 755 BCE in historical counting style.

direct	-754 Jun 30 j 21:06	18°♄13'35		retrograde	-748 Apr 20 j 02:59	2°♄46'52	
evening set	-754 Oct 11 j 09:53	25°♄17'55			-748 Jun 22 j 09:00	30°♄17'55	
				opposition	-748 Jun 30 j 01:44	29°♄25'39	0°00'28
conjunction	-754 Oct 27 j 23:04	27°♄13'29	2°04'48	min. Earth dist.	-748 Jun 30 j 09:58	29°♄24'07	8.87280 AU
minimum elong	-754 Oct 27 j 23:06	27°♄13'30	2°04'47	desc. node	-748 Jul 05 j 00:51	29°♄03'24	
max. Earth dist.	-754 Oct 27 j 15:24	27°♄11'15	11.10383 AU	direct	-748 Sep 07 j 17:48	26°♄06'42	
morning rise	-754 Nov 13 j 10:08	29°♄08'30			-748 Nov 17 j 06:17	0°♄	
	-754 Nov 20 j 23:47	0°♄		evening set	-748 Dec 16 j 09:31	3°♄13'15	
retrograde	-753 Feb 21 j 03:33	6°♄03'02					
opposition	-753 May 02 j 09:38	2°♄46'10	2°23'48	conjunction	-747 Jan 02 j 03:09	5°♄13'42	0°-13'-52
min. Earth dist.	-753 May 02 j 17:09	2°♄44'47	9.11353 AU	minimum elong	-747 Jan 02 j 03:08	5°♄13'42	0°13'53
	-753 Jun 16 j 00:45	30°♄		behind sun begin	-747 Jan 01 j 23:22	5°♄12'35	
direct	-753 Jul 12 j 19:07	29°♄26'37		behind sun end	-747 Jan 02 j 06:53	5°♄14'49	
	-753 Aug 08 j 05:23	0°♄		max. Earth dist.	-747 Jan 01 j 18:28	5°♄11'06	10.82174 AU
evening set	-753 Oct 22 j 15:27	6°♄27'39		morning rise	-747 Jan 18 j 23:43	7°♄15'06	
				retrograde	-747 May 02 j 21:12	14°♄40'00	
conjunction	-753 Nov 08 j 03:46	8°♄22'56	1°49'49	opposition	-747 Jul 12 j 16:09	11°♄17'25	0°-34'-59
minimum elong	-753 Nov 08 j 03:48	8°♄22'57	1°49'49	min. Earth dist.	-747 Jul 12 j 22:56	11°♄16'08	8.76612 AU
max. Earth dist.	-753 Nov 07 j 18:36	8°♄20'15	11.11426 AU	direct	-747 Sep 19 j 18:54	7°♄57'58	
morning rise	-753 Nov 24 j 14:59	10°♄17'56		evening set	-747 Dec 28 j 09:36	15°♄10'17	
	-752 Jan 10 j 11:31	15°♄					
retrograde	-752 Mar 03 j 18:30	17°♄13'39		conjunction	-746 Jan 14 j 05:31	17°♄12'49	0°-42'-31
	-752 Apr 28 j 15:27	15°♄		minimum elong	-746 Jan 14 j 05:29	17°♄12'48	0°42'32
opposition	-752 May 13 j 08:47	13°♄56'19	2°02'53	max. Earth dist.	-746 Jan 13 j 22:14	17°♄10'35	10.70858 AU
min. Earth dist.	-752 May 13 j 16:49	13°♄54'51	9.11145 AU	morning rise	-746 Jan 31 j 04:57	19°♄16'30	
direct	-752 Jul 23 j 13:48	10°♄37'17		retrograde	-746 May 15 j 23:51	26°♄51'14	
	-752 Oct 08 j 22:08	15°♄		opposition	-746 Jul 25 j 12:36	23°♄27'11	-1°-9'-51
evening set	-752 Nov 01 j 19:19	17°♄36'22		min. Earth dist.	-746 Jul 25 j 17:47	23°♄26'12	8.64780 AU
				direct	-746 Oct 02 j 01:32	20°♄07'03	
conjunction	-752 Nov 18 j 07:43	19°♄31'51	1°30'40	evening set	-745 Jan 09 j 18:43	27°♄26'29	
minimum elong	-752 Nov 18 j 07:46	19°♄31'52	1°30'39				
max. Earth dist.	-752 Nov 17 j 22:34	19°♄29'10	11.10039 AU	conjunction	-745 Jan 26 j 17:03	29°♄31'21	-1°-9'-56
morning rise	-752 Dec 04 j 19:43	21°♄27'18		minimum elong	-745 Jan 26 j 17:01	29°♄31'21	1°09'57
retrograde	-751 Mar 15 j 13:48	28°♄25'50		max. Earth dist.	-745 Jan 26 j 10:47	29°♄29'25	10.58615 AU
opposition	-751 May 25 j 08:49	25°♄07'48	1°37'16		-745 Jan 30 j 13:39	0°♄	
min. Earth dist.	-751 May 25 j 16:40	25°♄06'21	9.08506 AU	morning rise	-745 Feb 12 j 19:40	1°♄37'34	
direct	-751 Aug 04 j 08:33	21°♄49'07		retrograde	-745 May 29 j 12:07	9°♄22'51	
evening set	-751 Nov 12 j 23:44	28°♄47'43		opposition	-745 Aug 07 j 15:38	5°♄57'21	-1°-42'-28
	-751 Nov 23 j 07:51	0°♄		min. Earth dist.	-745 Aug 07 j 19:32	5°♄56'36	8.52309 AU
conjunction	-751 Nov 29 j 12:48	0°♄43'52	1°07'59	direct	-745 Oct 14 j 13:58	2°♄36'19	
minimum elong	-751 Nov 29 j 12:50	0°♄43'53	1°07'57	evening set	-744 Jan 22 j 14:16	10°♄04'04	
max. Earth dist.	-751 Nov 29 j 03:37	0°♄41'10	11.06255 AU				
morning rise	-751 Dec 16 j 02:10	2°♄40'12		conjunction	-744 Feb 08 j 15:25	12°♄11'27	-1°-34'-41
retrograde	-750 Mar 27 j 13:27	9°♄43'04		minimum elong	-744 Feb 08 j 15:22	12°♄11'26	1°34'42
opposition	-750 Jun 06 j 10:47	6°♄24'10	1°07'43	max. Earth dist.	-744 Feb 08 j 10:27	12°♄09'53	10.46005 AU
min. Earth dist.	-750 Jun 06 j 18:54	6°♄22'40	9.03520 AU	morning rise	-744 Feb 25 j 21:26	15°♄20'21	
direct	-750 Aug 16 j 00:58	3°♄05'37			-744 Mar 02 j 07:40	15°♄	
evening set	-750 Nov 24 j 06:27	10°♄05'17		retrograde	-744 Jun 11 j 07:39	22°♄16'19	
				opposition	-744 Aug 20 j 01:15	18°♄49'27	-2°-11'00
conjunction	-750 Dec 10 j 20:30	12°♄02'30	0°42'26	min. Earth dist.	-744 Aug 20 j 03:59	18°♄48'54	8.39790 AU
minimum elong	-750 Dec 10 j 20:32	12°♄02'30	0°42'25	direct	-744 Oct 26 j 10:29	15°♄27'21	
max. Earth dist.	-750 Dec 10 j 10:23	11°♄59'30	11.00200 AU	evening set	-743 Feb 03 j 20:56	23°♄04'15	
morning rise	-750 Dec 27 j 11:57	14°♄00'11					
retrograde	-749 Apr 08 j 16:08	21°♄08'56		conjunction	-743 Feb 21 j 01:24	25°♄14'17	-1°-55'-15
opposition	-749 Jun 18 j 16:11	17°♄48'58	0°35'06	minimum elong	-743 Feb 21 j 01:22	25°♄14'16	1°55'17
min. Earth dist.	-749 Jun 19 j 00:46	17°♄47'22	8.96361 AU	max. Earth dist.	-743 Feb 20 j 22:47	25°♄13'27	10.33641 AU
direct	-749 Aug 27 j 18:48	14°♄30'20		morning rise	-743 Mar 10 j 10:55	27°♄25'54	
evening set	-749 Dec 05 j 17:01	21°♄32'40			-743 Mar 31 j 22:26	0°♄	
				retrograde	-743 Jun 25 j 10:47	5°♄32'07	
conjunction	-749 Dec 22 j 08:36	23°♄31'19	0°14'51	opposition	-743 Sep 02 j 17:29	2°♄03'58	-2°-33'-32
minimum elong	-749 Dec 22 j 08:36	23°♄31'19	0°14'51	min. Earth dist.	-743 Sep 02 j 18:29	2°♄03'46	8.27840 AU
behind sun begin	-749 Dec 22 j 05:40	23°♄30'27			-743 Sep 30 j 14:55	30°♄	
behind sun end	-749 Dec 22 j 11:32	23°♄32'11		direct	-743 Nov 08 j 16:07	28°♄40'43	
max. Earth dist.	-749 Dec 21 j 22:29	23°♄28'18	10.92080 AU		-743 Dec 16 j 19:57	0°♄	
morning rise	-748 Jan 08 j 02:32	25°♄30'41		evening set	-742 Feb 17 j 14:59	6°♄27'03	
	-748 Feb 20 j 00:22	0°♄					
				conjunction	-742 Mar 06 j 23:10	8°♄39'47	-2°-10'-9

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 14

Attention, astronomical year style is used: The year -742 in astronomical counting style is the year 743 BCE in historical counting style.

minimum elong	-742 Mar 06 j 23:08	8° $\text{K}$ 39'46	2°10'11	direct	-736 Jan 31 j 23:14	23° $\text{U}$ 31'15	
max. Earth dist.	-742 Mar 06 j 23:32	8° $\text{K}$ 39'54	10.22153 AU		-736 May 01 j 16:57	0° $\text{II}$	
morning rise	-742 Mar 24 j 12:13	10° $\text{K}$ 54'04		evening set	-736 May 16 j 07:20	1° $\text{II}$ 49'23	
retrograde	-742 Jul 09 j 21:09	19° $\text{K}$ 09'19					
opposition	-742 Sep 16 j 15:46	15° $\text{K}$ 40'05	-2°-48'-12	conjunction	-736 Jun 03 j 12:18	4° $\text{II}$ 11'04	0°-59'-42
min. Earth dist.	-742 Sep 16 j 14:29	15° $\text{K}$ 40'20	8.17080 AU	minimum elong	-736 Jun 03 j 12:21	4° $\text{II}$ 11'05	0°59'43
direct	-742 Nov 22 j 05:26	12° $\text{K}$ 15'36		max. Earth dist.	-736 Jun 03 j 22:05	4° $\text{II}$ 14'15	10.00849 AU
evening set	-741 Mar 03 j 20:05	20° $\text{K}$ 11'04		morning rise	-736 Jun 21 j 16:44	6° $\text{II}$ 32'29	
				retrograde	-736 Oct 04 j 00:35	14° $\text{II}$ 45'26	
conjunction	-741 Mar 21 j 08:23	22° $\text{K}$ 26'26	-2°-18'-3	opposition	-736 Dec 09 j 12:25	11° $\text{II}$ 17'13	0°-54'-41
minimum elong	-741 Mar 21 j 08:22	22° $\text{K}$ 26'25	2°18'05	min. Earth dist.	-736 Dec 09 j 04:35	11° $\text{II}$ 18'50	8.03953 AU
max. Earth dist.	-741 Mar 21 j 11:26	22° $\text{K}$ 27'25	10.12161 AU	direct	-735 Feb 14 j 16:14	7° $\text{II}$ 47'33	
morning rise	-741 Apr 08 j 01:08	24° $\text{K}$ 43'15		evening set	-735 May 31 j 11:20	16° $\text{II}$ 03'02	
	-741 May 24 j 13:29	0° $\text{Y}$					
retrograde	-741 Jul 24 j 14:07	3° $\text{Y}$ 05'29		conjunction	-735 Jun 18 j 16:03	18° $\text{II}$ 23'27	0°-27'-10
	-741 Sep 25 j 18:33	30° $\text{R}$ $\text{K}$		minimum elong	-735 Jun 18 j 16:04	18° $\text{II}$ 23'28	0°27'10
opposition	-741 Sep 30 j 19:08	29° $\text{K}$ 35'26	-2°-53'-26	max. Earth dist.	-735 Jun 19 j 02:16	18° $\text{II}$ 26'45	10.07744 AU
min. Earth dist.	-741 Sep 30 j 15:51	29° $\text{K}$ 36'06	8.08069 AU	morning rise	-735 Jul 06 j 18:48	20° $\text{II}$ 43'11	
direct	-741 Dec 06 j 01:21	26° $\text{K}$ 09'41		retrograde	-735 Oct 18 j 00:51	28° $\text{II}$ 46'35	
	-740 Feb 10 j 17:34	0° $\text{Y}$		opposition	-735 Dec 23 j 13:00	25° $\text{II}$ 19'39	0°-13'-7
evening set	-740 Mar 17 j 11:10	4° $\text{Y}$ 13'29		min. Earth dist.	-735 Dec 23 j 04:36	25° $\text{II}$ 21'22	8.12116 AU
				direct	-734 Mar 01 j 06:29	21° $\text{II}$ 50'02	
conjunction	-740 Apr 04 j 03:48	6° $\text{Y}$ 31'17	-2°-17'-57	asc. node	-734 Apr 21 j 12:02	24° $\text{II}$ 04'33	
minimum elong	-740 Apr 04 j 03:49	6° $\text{Y}$ 31'17	2°17'59	evening set	-734 Jun 15 j 08:40	0° $\text{U}$ 00'42	
max. Earth dist.	-740 Apr 04 j 08:49	6° $\text{Y}$ 32'55	10.04183 AU		-734 Jun 15 j 06:24	0° $\text{U}$	
morning rise	-740 Apr 22 j 00:19	8° $\text{Y}$ 50'22					
retrograde	-740 Aug 07 j 10:33	17° $\text{Y}$ 16'58		conjunction	-734 Jul 03 j 11:27	2° $\text{U}$ 19'00	0°06'30
opposition	-740 Oct 14 j 02:27	13° $\text{Y}$ 46'30	-2°-48'-17	minimum elong	-734 Jul 03 j 11:27	2° $\text{U}$ 19'00	0°06'31
min. Earth dist.	-740 Oct 13 j 21:42	13° $\text{Y}$ 47'29	8.01277 AU	behind sun begin	-734 Jul 03 j 04:35	2° $\text{U}$ 16'49	
direct	-740 Dec 19 j 05:10	10° $\text{Y}$ 19'35		behind sun end	-734 Jul 03 j 18:19	2° $\text{U}$ 21'10	
evening set	-739 Apr 01 j 10:30	18° $\text{Y}$ 30'23		max. Earth dist.	-734 Jul 03 j 21:49	2° $\text{U}$ 22'18	10.17114 AU
				morning rise	-734 Jul 21 j 10:58	4° $\text{U}$ 36'15	
conjunction	-739 Apr 19 j 07:21	20° $\text{Y}$ 50'13	-2°-9'-26	retrograde	-734 Oct 31 j 16:26	12° $\text{U}$ 29'09	
minimum elong	-739 Apr 19 j 07:24	20° $\text{Y}$ 50'14	2°09'27	opposition	-733 Jan 06 j 07:40	9° $\text{U}$ 03'41	0°28'14
max. Earth dist.	-739 Apr 19 j 13:49	20° $\text{Y}$ 52'21	9.98694 AU	min. Earth dist.	-733 Jan 05 j 23:37	9° $\text{U}$ 05'19	8.22477 AU
morning rise	-739 May 07 j 07:20	23° $\text{Y}$ 11'06		direct	-733 Mar 15 j 15:52	5° $\text{U}$ 34'24	
	-739 Jul 10 j 03:10	0° $\text{U}$		evening set	-733 Jun 29 j 21:28	13° $\text{U}$ 38'38	
retrograde	-739 Aug 22 j 07:20	1° $\text{U}$ 39'02					
	-739 Oct 04 j 20:52	30° $\text{R}$ $\text{Y}$		conjunction	-733 Jul 17 j 20:45	15° $\text{U}$ 54'09	0°38'59
opposition	-739 Oct 28 j 12:06	28° $\text{Y}$ 08'34	-2°-32'-34	minimum elong	-733 Jul 17 j 20:43	15° $\text{U}$ 54'09	0°39'00
min. Earth dist.	-739 Oct 28 j 06:23	28° $\text{Y}$ 09'46	7.97198 AU	max. Earth dist.	-733 Jul 18 j 06:17	15° $\text{U}$ 57'10	10.28337 AU
direct	-738 Jan 02 j 15:26	24° $\text{Y}$ 40'38		morning rise	-733 Aug 04 j 15:45	18° $\text{U}$ 08'22	
	-738 Mar 23 j 19:15	0° $\text{U}$		retrograde	-733 Nov 13 j 23:38	25° $\text{U}$ 50'33	
evening set	-738 Apr 16 j 15:40	2° $\text{U}$ 56'25		opposition	-732 Jan 19 j 19:45	22° $\text{U}$ 26'37	1°06'55
				min. Earth dist.	-732 Jan 19 j 12:59	22° $\text{U}$ 27'58	8.34386 AU
conjunction	-738 May 04 j 16:18	5° $\text{U}$ 17'43	-1°-52'-45	direct	-732 Mar 28 j 17:59	18° $\text{U}$ 57'57	
minimum elong	-738 May 04 j 16:22	5° $\text{U}$ 17'45	1°52'46	evening set	-732 Jul 13 j 00:01	26° $\text{U}$ 54'36	
max. Earth dist.	-738 May 05 j 00:06	5° $\text{U}$ 20'17	9.96178 AU				
morning rise	-738 May 22 j 19:04	7° $\text{U}$ 39'42		conjunction	-732 Jul 30 j 18:34	29° $\text{U}$ 06'57	1°08'38
	-738 Aug 02 j 09:37	15° $\text{U}$		minimum elong	-732 Jul 30 j 18:31	29° $\text{U}$ 06'56	1°08'39
retrograde	-738 Sep 06 j 02:07	16° $\text{U}$ 05'37		max. Earth dist.	-732 Jul 31 j 02:19	29° $\text{U}$ 09'22	10.40740 AU
	-738 Oct 10 j 22:10	15° $\text{R}$ $\text{U}$			-732 Aug 06 j 20:31	0° $\text{U}$	
opposition	-738 Nov 11 j 22:20	12° $\text{U}$ 35'34	-2°-7'-5	morning rise	-732 Aug 17 j 08:19	1° $\text{U}$ 17'49	
min. Earth dist.	-738 Nov 11 j 15:50	12° $\text{U}$ 36'55	7.96243 AU	retrograde	-732 Nov 25 j 21:59	8° $\text{U}$ 49'42	
direct	-737 Jan 17 j 06:18	9° $\text{U}$ 06'46		opposition	-731 Feb 01 j 01:16	5° $\text{U}$ 27'17	1°40'58
	-737 Apr 12 j 12:56	15° $\text{U}$		min. Earth dist.	-731 Jan 31 j 20:14	5° $\text{U}$ 28'17	8.47162 AU
evening set	-737 May 01 j 23:39	17° $\text{U}$ 25'02		direct	-731 Apr 11 j 13:38	1° $\text{U}$ 59'30	
				evening set	-731 Jul 26 j 15:14	9° $\text{U}$ 47'53	
conjunction	-737 May 20 j 03:10	19° $\text{U}$ 47'00	-1°-28'-57				
minimum elong	-737 May 20 j 03:14	19° $\text{U}$ 47'02	1°28'57	conjunction	-731 Aug 13 j 04:27	11° $\text{U}$ 56'56	1°34'05
max. Earth dist.	-737 May 20 j 12:10	19° $\text{U}$ 49'57	9.96904 AU	minimum elong	-731 Aug 13 j 04:23	11° $\text{U}$ 56'55	1°34'06
morning rise	-737 Jun 07 j 07:34	22° $\text{U}$ 09'12		max. Earth dist.	-731 Aug 13 j 09:43	11° $\text{U}$ 58'33	10.53650 AU
	-737 Aug 28 j 13:06	0° $\text{II}$		morning rise	-731 Aug 30 j 12:46	14° $\text{U}$ 04'27	
retrograde	-737 Sep 20 j 16:20	0° $\text{II}$ 29'56			-731 Sep 07 j 07:03	15° $\text{U}$	
	-737 Oct 13 j 20:40	30° $\text{R}$ $\text{U}$		retrograde	-731 Dec 08 j 10:16	21° $\text{U}$ 26'54	
opposition	-737 Nov 26 j 07:04	27° $\text{U}$ 00'38	-1°-33'-38	opposition	-730 Feb 14 j 00:08	18° $\text{U}$ 05'54	2°09'01
min. Earth dist.	-737 Nov 25 j 23:53	27° $\text{U}$ 02'08	7.98541 AU	min. Earth dist.	-730 Feb 13 j 20:36	18° $\text{U}$ 06'36	8.60130 AU

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 15

Attention, astronomical year style is used: The year -730 in astronomical counting style is the year 731 BCE in historical counting style.

	-730 Apr 04 j 16:31	15° $\mathbb{R}\Omega$		min. Earth dist.	-724 Apr 26 j 18:49	28° $\mathbb{A}$ 07'49	9.12350 AU
direct	-730 Apr 25 j 02:42	14° $\mathbb{Q}$ 23'11		direct	-724 Jul 07 j 01:26	24° $\mathbb{A}$ 49'16	
	-730 May 15 j 11:37	15° $\mathbb{Q}$			-724 Sep 30 j 11:28	0° $\mathbb{M}$ .	
evening set	-730 Aug 08 j 19:23	22° $\mathbb{Q}$ 19'09		evening set	-724 Oct 17 j 03:24	1° $\mathbb{M}$ .50'52	
conjunction	-730 Aug 26 j 03:12	24° $\mathbb{Q}$ 24'58	1°54'23	conjunction	-724 Nov 02 j 16:05	3° $\mathbb{M}$ .46'01	1°56'49
minimum elong	-730 Aug 26 j 03:09	24° $\mathbb{Q}$ 24'57	1°54'24	minimum elong	-724 Nov 02 j 16:07	3° $\mathbb{M}$ .46'02	1°56'50
max. Earth dist.	-730 Aug 26 j 06:00	24° $\mathbb{Q}$ 25'49	10.66423 AU	max. Earth dist.	-724 Nov 02 j 09:29	3° $\mathbb{M}$ .44'05	11.13156 AU
morning rise	-730 Sep 12 j 06:12	26° $\mathbb{Q}$ 29'18		morning rise	-724 Nov 19 j 02:57	5° $\mathbb{M}$ .40'44	
	-730 Oct 13 j 21:19	0° $\mathbb{M}$ .		retrograde	-723 Feb 27 j 02:33	12° $\mathbb{M}$ .34'56	
retrograde	-730 Dec 20 j 16:25	3° $\mathbb{M}$ .43'26		opposition	-723 May 08 j 12:12	9° $\mathbb{M}$ .18'18	2°12'29
opposition	-729 Feb 26 j 16:41	0° $\mathbb{M}$ .23'44	2°30'17	min. Earth dist.	-723 May 08 j 18:40	9° $\mathbb{M}$ .17'07	9.13617 AU
min. Earth dist.	-729 Feb 26 j 14:13	0° $\mathbb{M}$ .24'12	8.72658 AU	direct	-723 Jul 18 j 19:19	5° $\mathbb{M}$ .59'35	
	-729 Mar 03 j 20:06	30° $\mathbb{R}\Omega$		evening set	-723 Oct 28 j 07:32	12° $\mathbb{M}$ .58'33	
direct	-729 May 08 j 07:42	26° $\mathbb{Q}$ 58'15					
	-729 Jul 10 j 03:34	0° $\mathbb{M}$ .		conjunction	-723 Nov 13 j 19:47	14° $\mathbb{M}$ .53'40	1°39'27
evening set	-729 Aug 21 j 12:46	4° $\mathbb{M}$ .29'56		minimum elong	-723 Nov 13 j 19:49	14° $\mathbb{M}$ .53'41	1°39'26
				max. Earth dist.	-723 Nov 13 j 11:21	14° $\mathbb{M}$ .51'12	11.13197 AU
conjunction	-729 Sep 07 j 15:36	6° $\mathbb{M}$ .32'50	2°09'02		-723 Nov 14 j 17:25	15° $\mathbb{M}$ .	
minimum elong	-729 Sep 07 j 15:33	6° $\mathbb{M}$ .32'49	2°09'01	morning rise	-723 Nov 30 j 07:13	16° $\mathbb{M}$ .48'37	
max. Earth dist.	-729 Sep 07 j 16:54	6° $\mathbb{M}$ .33'13	10.78475 AU	retrograde	-722 Mar 10 j 18:34	23° $\mathbb{M}$ .44'48	
morning rise	-729 Sep 24 j 13:37	8° $\mathbb{M}$ .34'18		opposition	-722 May 20 j 11:16	20° $\mathbb{M}$ .27'43	1°48'53
retrograde	-728 Jan 01 j 18:12	15° $\mathbb{M}$ .41'27		min. Earth dist.	-722 May 20 j 19:20	20° $\mathbb{M}$ .26'14	9.12351 AU
opposition	-728 Mar 10 j 04:02	12° $\mathbb{M}$ .22'52	2°44'21	direct	-722 Jul 30 j 12:38	17° $\mathbb{M}$ .09'29	
min. Earth dist.	-728 Mar 10 j 02:54	12° $\mathbb{M}$ .23'05	8.84193 AU	evening set	-722 Nov 08 j 11:14	24° $\mathbb{M}$ .07'17	
direct	-728 May 20 j 02:59	8° $\mathbb{M}$ .58'44					
evening set	-728 Sep 01 j 20:12	16° $\mathbb{M}$ .22'35		conjunction	-722 Nov 24 j 23:41	26° $\mathbb{M}$ .02'49	1°18'16
				minimum elong	-722 Nov 24 j 23:43	26° $\mathbb{M}$ .02'49	1°18'14
conjunction	-728 Sep 18 j 18:35	18° $\mathbb{M}$ .22'57	2°17'47	max. Earth dist.	-722 Nov 24 j 13:47	25° $\mathbb{M}$ .59'54	11.10704 AU
minimum elong	-728 Sep 18 j 18:34	18° $\mathbb{M}$ .22'56	2°17'46	morning rise	-722 Dec 11 j 12:22	27° $\mathbb{M}$ .58'26	
max. Earth dist.	-728 Sep 18 j 18:30	18° $\mathbb{M}$ .22'55	10.89298 AU		-722 Dec 29 j 18:41	0° $\mathbb{A}$ .	
morning rise	-728 Oct 05 j 12:24	20° $\mathbb{M}$ .22'00		retrograde	-721 Mar 22 j 14:30	4° $\mathbb{A}$ .58'12	
retrograde	-727 Jan 12 j 13:48	27° $\mathbb{M}$ .23'36		opposition	-721 Jun 01 j 11:54	1° $\mathbb{A}$ .40'22	1°21'02
opposition	-727 Mar 22 j 10:56	24° $\mathbb{M}$ .05'56	2°51'11	min. Earth dist.	-721 Jun 01 j 20:44	1° $\mathbb{A}$ .38'45	9.08553 AU
min. Earth dist.	-727 Mar 22 j 11:55	24° $\mathbb{M}$ .05'45	8.94272 AU		-721 Jun 25 j 09:35	30° $\mathbb{R}\mathbb{M}$ .	
direct	-727 Jun 01 j 16:25	20° $\mathbb{M}$ .43'06		direct	-721 Aug 11 j 06:20	28° $\mathbb{M}$ .22'23	
evening set	-727 Sep 13 j 19:11	27° $\mathbb{M}$ .59'53			-721 Sep 25 j 12:31	0° $\mathbb{A}$ .	
				evening set	-721 Nov 19 j 16:15	5° $\mathbb{A}$ .20'30	
conjunction	-727 Sep 30 j 13:46	29° $\mathbb{M}$ .58'10	2°20'40				
minimum elong	-727 Sep 30 j 13:46	29° $\mathbb{M}$ .58'10	2°20'39	conjunction	-721 Dec 06 j 05:41	7° $\mathbb{A}$ .16'54	0°53'56
max. Earth dist.	-727 Sep 30 j 11:17	29° $\mathbb{M}$ .57'26	10.98472 AU	minimum elong	-721 Dec 06 j 05:43	7° $\mathbb{A}$ .16'55	0°53'55
	-727 Sep 30 j 19:58	0° $\mathbb{A}$ .		max. Earth dist.	-721 Dec 05 j 19:49	7° $\mathbb{A}$ .13'59	11.05705 AU
morning rise	-727 Oct 17 j 04:27	1° $\mathbb{A}$ .55'21		morning rise	-721 Dec 22 j 20:03	9° $\mathbb{A}$ .13'39	
retrograde	-726 Jan 24 j 06:40	8° $\mathbb{A}$ .52'48		retrograde	-720 Apr 02 j 15:31	16° $\mathbb{A}$ .18'38	
opposition	-726 Apr 03 j 14:01	5° $\mathbb{A}$ .35'50	2°51'00	opposition	-720 Jun 12 j 15:10	12° $\mathbb{A}$ .59'46	0°49'45
min. Earth dist.	-726 Apr 03 j 17:16	5° $\mathbb{A}$ .35'14	9.02513 AU	min. Earth dist.	-720 Jun 12 j 23:43	12° $\mathbb{A}$ .58'12	9.02287 AU
direct	-726 Jun 13 j 23:47	2° $\mathbb{A}$ .14'14		direct	-720 Aug 22 j 00:15	9° $\mathbb{A}$ .41'48	
evening set	-726 Sep 25 j 11:02	9° $\mathbb{A}$ .24'52		evening set	-720 Nov 30 j 00:28	16° $\mathbb{A}$ .41'52	
conjunction	-726 Oct 12 j 02:40	11° $\mathbb{A}$ .21'36	2°17'54	conjunction	-720 Dec 16 j 15:21	18° $\mathbb{A}$ .39'34	0°27'13
minimum elong	-726 Oct 12 j 02:41	11° $\mathbb{A}$ .21'36	2°17'54	minimum elong	-720 Dec 16 j 15:22	18° $\mathbb{A}$ .39'35	0°27'12
max. Earth dist.	-726 Oct 11 j 21:41	11° $\mathbb{A}$ .20'08	11.05665 AU	max. Earth dist.	-720 Dec 16 j 05:20	18° $\mathbb{A}$ .36'36	10.98297 AU
morning rise	-726 Oct 28 j 15:16	13° $\mathbb{A}$ .17'26		morning rise	-719 Jan 02 j 07:52	20° $\mathbb{A}$ .37'52	
retrograde	-725 Feb 04 j 19:56	20° $\mathbb{A}$ .12'16		retrograde	-719 Apr 15 j 00:17	27° $\mathbb{A}$ .49'40	
opposition	-725 Apr 15 j 14:38	16° $\mathbb{A}$ .55'41	2°44'09	opposition	-719 Jun 24 j 22:13	24° $\mathbb{A}$ .29'36	0°15'58
min. Earth dist.	-725 Apr 15 j 19:08	16° $\mathbb{A}$ .54'51	9.08609 AU	min. Earth dist.	-719 Jun 25 j 06:44	24° $\mathbb{A}$ .28'01	8.93731 AU
direct	-725 Jun 26 j 01:55	13° $\mathbb{A}$ .35'14		direct	-719 Sep 02 j 19:51	21° $\mathbb{A}$ .11'21	
evening set	-725 Oct 06 j 21:08	20° $\mathbb{A}$ .40'46		evening set	-719 Dec 11 j 13:56	28° $\mathbb{A}$ .15'04	
				desc. node	-719 Dec 14 j 07:50	28° $\mathbb{A}$ .34'28	
conjunction	-725 Oct 23 j 10:52	22° $\mathbb{A}$ .36'26	2°09'48		-719 Dec 26 j 06:22	0° $\mathbb{B}$ .	
minimum elong	-725 Oct 23 j 10:54	22° $\mathbb{A}$ .36'26	2°09'49				
max. Earth dist.	-725 Oct 23 j 04:52	22° $\mathbb{A}$ .34'40	11.10616 AU	conjunction	-719 Dec 28 j 06:29	0° $\mathbb{B}$ .14'26	0°-1'-5
morning rise	-725 Nov 08 j 22:10	24° $\mathbb{A}$ .31'27		minimum elong	-719 Dec 28 j 06:28	0° $\mathbb{B}$ .14'26	0°01'06
	-724 Jan 05 j 11:52	0° $\mathbb{M}$ .		behind sun begin	-719 Dec 27 j 23:28	0° $\mathbb{B}$ .12'22	
retrograde	-724 Feb 16 j 11:02	1° $\mathbb{M}$ .25'14		behind sun end	-719 Dec 28 j 13:28	0° $\mathbb{B}$ .16'31	
	-724 Mar 30 j 17:38	30° $\mathbb{R}\mathbb{A}$ .		max. Earth dist.	-719 Dec 27 j 19:46	0° $\mathbb{B}$ .11'15	10.88753 AU
opposition	-724 Apr 26 j 13:42	28° $\mathbb{A}$ .08'45	2°31'08	morning rise	-718 Jan 14 j 01:38	2° $\mathbb{B}$ .14'40	

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 16

Attention, astronomical year style is used: The year -718 in astronomical counting style is the year 719 BCE in historical counting style.

retrograde	-718 Apr 27 j 13:50	9°♄34'43		retrograde	-712 Jul 17 j 09:44	27°♄03'17	
opposition	-718 Jul 07 j 10:03	6°♄13'16	0°-19'-12	opposition	-712 Sep 23 j 19:46	23°♄33'00	-2°-52'-28
min. Earth dist.	-718 Jul 07 j 18:41	6°♄11'38	8.83252 AU	min. Earth dist.	-712 Sep 23 j 18:40	23°♄33'14	8.10090 AU
direct	-718 Sep 14 j 17:55	2°♄54'27		direct	-712 Nov 29 j 04:14	20°♄07'12	
evening set	-718 Dec 23 j 10:10	10°♄03'26		evening set	-711 Mar 11 j 05:59	28°♄08'13	
					-711 Mar 25 j 15:27	0°♄	
conjunction	-717 Jan 09 j 04:45	12°♄04'48	0°-29'-50	conjunction	-711 Mar 28 j 20:36	0°♄25'11	-2°-19'-5
minimum elong	-717 Jan 09 j 04:44	12°♄04'47	0°29'51	minimum elong	-711 Mar 28 j 20:36	0°♄25'11	2°19'06
max. Earth dist.	-717 Jan 08 j 18:14	12°♄01'36	10.77501 AU	max. Earth dist.	-711 Mar 28 j 23:05	0°♄25'59	10.05566 AU
morning rise	-717 Jan 26 j 02:52	14°♄07'15		morning rise	-711 Apr 15 j 15:41	2°♄43'35	
retrograde	-717 May 10 j 11:19	21°♄36'51		retrograde	-711 Aug 01 j 03:58	11°♄09'28	
opposition	-717 Jul 20 j 03:38	18°♄13'48	0°-54'-26	opposition	-711 Oct 08 j 01:54	7°♄38'33	-2°-52'-4
min. Earth dist.	-717 Jul 20 j 11:45	18°♄12'15	8.71325 AU	min. Earth dist.	-711 Oct 07 j 22:50	7°♄39'11	8.02016 AU
direct	-717 Sep 26 j 23:06	14°♄54'11		direct	-711 Dec 13 j 06:41	4°♄11'31	
evening set	-716 Jan 04 j 14:37	22°♄09'50		evening set	-710 Mar 26 j 01:57	12°♄20'18	
conjunction	-716 Jan 21 j 11:44	24°♄13'29	0°-57'-55	conjunction	-710 Apr 12 j 21:00	14°♄39'32	-2°-14'-21
minimum elong	-716 Jan 21 j 11:42	24°♄13'29	0°57'56	minimum elong	-710 Apr 12 j 21:02	14°♄39'33	2°14'22
max. Earth dist.	-716 Jan 21 j 03:06	24°♄10'50	10.65029 AU	max. Earth dist.	-710 Apr 13 j 02:38	14°♄41'24	9.98811 AU
morning rise	-716 Feb 07 j 12:54	26°♄18'26		morning rise	-710 Apr 30 j 19:40	16°♄59'58	
	-716 Mar 11 j 13:09	0°♄		retrograde	-710 Aug 15 j 23:57	25°♄28'41	
retrograde	-716 May 22 j 18:45	3°♄58'30		opposition	-710 Oct 22 j 11:11	21°♄57'32	-2°-41'-2
opposition	-716 Aug 01 j 03:21	0°♄33'45	-1°-28'-14	min. Earth dist.	-710 Oct 22 j 05:51	21°♄58'38	7.96712 AU
min. Earth dist.	-716 Aug 01 j 09:45	0°♄32'32	8.58470 AU	direct	-710 Dec 27 j 15:08	18°♄29'25	
	-716 Aug 08 j 11:30	30°♄		evening set	-709 Apr 10 j 05:06	26°♄44'03	
direct	-716 Oct 08 j 09:30	27°♄13'08					
	-716 Dec 04 j 21:55	0°♄		conjunction	-709 Apr 28 j 04:20	29°♄05'03	-2°-1'-14
evening set	-715 Jan 16 j 05:03	4°♄36'45		minimum elong	-709 Apr 28 j 04:24	29°♄05'04	2°01'15
conjunction	-715 Feb 02 j 04:59	6°♄42'56	-1°-24'00	max. Earth dist.	-709 Apr 28 j 12:52	29°♄07'52	9.95063 AU
minimum elong	-715 Feb 02 j 04:56	6°♄42'55	1°24'02		-709 May 05 j 03:18	0°♄	
max. Earth dist.	-715 Feb 01 j 22:33	6°♄40'55	10.51886 AU	morning rise	-709 May 16 j 06:04	1°♄26'53	
morning rise	-715 Feb 19 j 09:17	8°♄50'32		retrograde	-709 Aug 30 j 20:06	9°♄54'59	
	-715 Apr 20 j 21:46	15°♄		opposition	-709 Nov 05 j 21:37	6°♄24'04	-2°-19'-43
retrograde	-715 Jun 05 j 10:31	16°♄41'30		min. Earth dist.	-709 Nov 05 j 14:18	6°♄25'35	7.94544 AU
	-715 Jul 21 j 21:00	15°♄		direct	-708 Jan 11 j 03:53	2°♄55'05	
opposition	-715 Aug 14 j 09:32	13°♄15'06	-1°-58'-49	evening set	-708 Apr 24 j 12:35	11°♄13'13	
min. Earth dist.	-715 Aug 14 j 13:47	13°♄14'17	8.45267 AU				
direct	-715 Oct 21 j 01:57	9°♄53'18		conjunction	-708 May 12 j 15:13	13°♄35'15	-1°-40'-25
	-714 Jan 08 j 19:00	15°♄		minimum elong	-708 May 12 j 15:17	13°♄35'16	1°40'26
evening set	-714 Jan 29 j 06:20	17°♄25'57		max. Earth dist.	-708 May 13 j 01:45	13°♄38'43	9.94587 AU
					-708 May 23 j 09:19	15°♄	
conjunction	-714 Feb 15 j 09:19	19°♄34'48	-1°-46'-38	morning rise	-708 May 30 j 19:03	15°♄57'40	
minimum elong	-714 Feb 15 j 09:16	19°♄34'47	1°46'39	retrograde	-708 Sep 13 j 13:51	24°♄21'49	
max. Earth dist.	-714 Feb 15 j 04:50	19°♄33'23	10.38696 AU	opposition	-708 Nov 19 j 07:34	20°♄51'35	-1°-49'-30
morning rise	-714 Mar 04 j 17:01	21°♄45'10		min. Earth dist.	-708 Nov 18 j 23:04	20°♄53'22	7.95680 AU
retrograde	-714 Jun 19 j 10:43	29°♄46'57		direct	-707 Jan 24 j 18:59	17°♄22'02	
opposition	-714 Aug 27 j 22:41	26°♄19'01	-2°-24'-19	evening set	-707 May 09 j 21:02	25°♄41'05	
min. Earth dist.	-714 Aug 28 j 00:49	26°♄18'36	8.32356 AU				
direct	-714 Nov 03 j 02:40	22°♄55'56		conjunction	-707 May 28 j 01:44	28°♄03'12	-1°-13'-20
	-713 Feb 06 j 15:59	0°♄		minimum elong	-707 May 28 j 01:47	28°♄03'13	1°13'20
evening set	-713 Feb 11 j 18:55	0°♄38'10		max. Earth dist.	-707 May 28 j 13:28	28°♄07'03	9.97426 AU
					-707 Jun 11 j 23:45	0°♄	
conjunction	-713 Mar 01 j 01:19	2°♄49'47	-2°-4'-16	morning rise	-707 Jun 15 j 06:15	0°♄25'16	
minimum elong	-713 Mar 01 j 01:16	2°♄49'46	2°04'18	retrograde	-707 Sep 28 j 02:53	8°♄42'38	
max. Earth dist.	-713 Feb 28 j 22:38	2°♄48'55	10.26130 AU	opposition	-707 Dec 03 j 15:01	5°♄13'30	-1°-12'-35
morning rise	-713 Mar 18 j 12:44	5°♄02'59		min. Earth dist.	-707 Dec 03 j 06:03	5°♄15'22	8.00065 AU
retrograde	-713 Jul 03 j 18:59	13°♄14'45		direct	-706 Feb 08 j 12:00	1°♄43'40	
opposition	-713 Sep 10 j 18:25	9°♄45'29	-2°-42'-46	evening set	-706 May 25 j 03:24	10°♄01'06	
min. Earth dist.	-713 Sep 10 j 18:57	9°♄45'22	8.20409 AU				
direct	-713 Nov 16 j 11:16	6°♄21'03		conjunction	-706 Jun 12 j 08:32	12°♄22'21	0°-41'-56
evening set	-712 Feb 25 j 19:06	14°♄12'57		minimum elong	-706 Jun 12 j 08:34	12°♄22'21	0°41'57
				max. Earth dist.	-706 Jun 12 j 20:31	12°♄26'14	10.03404 AU
conjunction	-712 Mar 14 j 05:25	16°♄27'18	-2°-15'-29	morning rise	-706 Jun 30 j 12:13	14°♄43'06	
minimum elong	-712 Mar 14 j 05:23	16°♄27'18	2°15'30	retrograde	-706 Oct 12 j 07:34	22°♄51'29	
max. Earth dist.	-712 Mar 14 j 05:05	16°♄27'12	10.14868 AU	opposition	-706 Dec 17 j 18:15	19°♄23'47	0°-31'-45
morning rise	-712 Mar 31 j 20:41	18°♄43'14		min. Earth dist.	-706 Dec 17 j 09:34	19°♄25'34	8.07424 AU

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 17

Attention, astronomical year style is used: The year -705 in astronomical counting style is the year 706 BCE in historical counting style.

direct	-705 Feb 23 j 04:13	15° $\Pi$ 54'01		minimum elong	-700 Sep 01 j 15:58	1° $\Pi$ 34'15	2°03'17
evening set	-705 Jun 09 j 04:39	24° $\Pi$ 07'33		max. Earth dist.	-700 Sep 01 j 18:07	1° $\Pi$ 34'55	10.74153 AU
				morning rise	-700 Sep 18 j 16:03	3° $\Pi$ 36'54	
conjunction	-705 Jun 27 j 08:29	26° $\Pi$ 26'59	0°-8'-30	retrograde	-700 Dec 27 j 00:04	10° $\Pi$ 46'58	
minimum elong	-705 Jun 27 j 08:29	26° $\Pi$ 26'59	0°08'30	opposition	-699 Mar 05 j 04:35	7° $\Pi$ 28'23	2°38'58
behind sun begin	-705 Jun 27 j 02:06	26° $\Pi$ 24'57		min. Earth dist.	-699 Mar 05 j 04:05	7° $\Pi$ 28'28	8.80068 AU
behind sun end	-705 Jun 27 j 14:52	26° $\Pi$ 29'01		direct	-699 May 14 j 22:13	4° $\Pi$ 04'04	
max. Earth dist.	-705 Jun 27 j 19:42	26° $\Pi$ 30'35	10.12116 AU	evening set	-699 Aug 27 j 23:08	11° $\Pi$ 31'21	
morning rise	-705 Jul 15 j 09:43	28° $\Pi$ 45'34					
	-705 Jul 25 j 09:35	0° $\mathfrak{S}$		conjunction	-699 Sep 13 j 23:16	13° $\Pi$ 32'45	2°14'35
asc. node	-705 Sep 30 j 19:39	6° $\mathfrak{S}$ 08'01		minimum elong	-699 Sep 13 j 23:14	13° $\Pi$ 32'44	2°14'35
retrograde	-705 Oct 26 j 03:04	6° $\mathfrak{S}$ 43'40		max. Earth dist.	-699 Sep 13 j 22:10	13° $\Pi$ 32'25	10.85384 AU
opposition	-705 Dec 31 j 16:10	3° $\mathfrak{S}$ 17'35	0°10'06	morning rise	-699 Sep 30 j 18:58	15° $\Pi$ 32'49	
min. Earth dist.	-705 Dec 31 j 07:57	3° $\mathfrak{S}$ 19'16	8.17270 AU	retrograde	-698 Jan 07 j 21:06	22° $\Pi$ 36'48	
	-704 Feb 22 j 21:36	30° $\mathfrak{R}$ $\Pi$		opposition	-698 Mar 17 j 13:36	19° $\Pi$ 19'09	2°48'56
direct	-704 Mar 08 j 16:49	29° $\Pi$ 48'12		min. Earth dist.	-698 Mar 17 j 14:50	19° $\Pi$ 18'55	8.90557 AU
	-704 Mar 23 j 11:29	0° $\mathfrak{S}$		direct	-698 May 27 j 16:44	15° $\Pi$ 56'04	
evening set	-704 Jun 22 j 22:09	7° $\mathfrak{S}$ 55'55		evening set	-698 Sep 09 j 02:12	23° $\Pi$ 16'06	
conjunction	-704 Jul 10 j 23:00	10° $\mathfrak{S}$ 12'48	0°24'51	conjunction	-698 Sep 25 j 22:20	25° $\Pi$ 15'14	2°20'00
minimum elong	-704 Jul 10 j 22:59	10° $\mathfrak{S}$ 12'48	0°24'52	minimum elong	-698 Sep 25 j 22:19	25° $\Pi$ 15'14	2°19'59
max. Earth dist.	-704 Jul 11 j 09:02	10° $\mathfrak{S}$ 15'59	10.22992 AU	max. Earth dist.	-698 Sep 25 j 19:12	25° $\Pi$ 14'19	10.94970 AU
morning rise	-704 Jul 28 j 20:18	12° $\mathfrak{S}$ 28'30		morning rise	-698 Oct 12 j 14:23	27° $\Pi$ 13'13	
retrograde	-704 Nov 07 j 13:49	20° $\mathfrak{S}$ 15'50			-698 Nov 06 j 19:40	0° $\mathfrak{A}$	
opposition	-703 Jan 13 j 07:47	16° $\mathfrak{S}$ 51'25	0°50'17	retrograde	-697 Jan 19 j 16:29	4° $\mathfrak{A}$ 12'33	
min. Earth dist.	-703 Jan 12 j 23:53	16° $\mathfrak{S}$ 53'01	8.28981 AU	opposition	-697 Mar 29 j 18:32	0° $\mathfrak{A}$ 55'35	2°51'46
direct	-703 Mar 22 j 23:31	13° $\mathfrak{S}$ 22'45		min. Earth dist.	-697 Mar 29 j 21:04	0° $\mathfrak{A}$ 55'06	8.99225 AU
evening set	-703 Jul 07 j 05:56	21° $\mathfrak{S}$ 23'11			-697 Apr 11 j 08:04	30° $\mathfrak{R}$ $\Pi$	
				direct	-697 Jun 09 j 03:18	27° $\Pi$ 33'40	
conjunction	-703 Jul 25 j 02:37	23° $\mathfrak{S}$ 37'00	0°56'00		-697 Aug 04 j 17:08	0° $\mathfrak{A}$	
minimum elong	-703 Jul 25 j 02:34	23° $\mathfrak{S}$ 37'00	0°56'01	evening set	-697 Sep 20 j 21:26	4° $\mathfrak{A}$ 47'12	
max. Earth dist.	-703 Jul 25 j 11:31	23° $\mathfrak{S}$ 39'48	10.35366 AU				
morning rise	-703 Aug 11 j 18:56	25° $\mathfrak{S}$ 49'25		conjunction	-697 Oct 07 j 14:25	6° $\mathfrak{A}$ 44'37	2°19'39
	-703 Sep 17 j 19:34	0° $\mathfrak{Q}$		minimum elong	-697 Oct 07 j 14:26	6° $\mathfrak{A}$ 44'38	2°19'38
retrograde	-703 Nov 20 j 16:42	3° $\mathfrak{Q}$ 26'05		max. Earth dist.	-697 Oct 07 j 10:08	6° $\mathfrak{A}$ 43'21	11.02616 AU
opposition	-702 Jan 26 j 16:38	0° $\mathfrak{Q}$ 03'20	1°26'37	morning rise	-697 Oct 24 j 03:44	8° $\mathfrak{A}$ 41'02	
min. Earth dist.	-702 Jan 26 j 09:27	0° $\mathfrak{Q}$ 04'46	8.41857 AU	retrograde	-696 Jan 31 j 08:15	15° $\mathfrak{A}$ 37'12	
	-702 Jan 27 j 09:22	30° $\mathfrak{R}$ $\mathfrak{S}$		opposition	-696 Apr 09 j 20:41	12° $\mathfrak{A}$ 20'35	2°47'46
direct	-702 Apr 05 j 22:48	26° $\mathfrak{S}$ 35'33		min. Earth dist.	-696 Apr 10 j 01:09	12° $\mathfrak{A}$ 19'45	9.05814 AU
	-702 Jun 10 j 17:25	0° $\mathfrak{Q}$		direct	-696 Jun 20 j 06:51	8° $\mathfrak{A}$ 59'42	
evening set	-702 Jul 21 j 02:48	4° $\mathfrak{Q}$ 27'49		evening set	-696 Oct 01 j 10:14	16° $\mathfrak{A}$ 07'42	
conjunction	-702 Aug 07 j 18:32	6° $\mathfrak{Q}$ 38'20	1°23'28	conjunction	-696 Oct 18 j 00:50	18° $\mathfrak{A}$ 03'53	2°13'48
minimum elong	-702 Aug 07 j 18:29	6° $\mathfrak{Q}$ 38'19	1°23'29	minimum elong	-696 Oct 18 j 00:51	18° $\mathfrak{A}$ 03'54	2°13'48
max. Earth dist.	-702 Aug 08 j 02:03	6° $\mathfrak{Q}$ 40'40	10.48511 AU	max. Earth dist.	-696 Oct 17 j 18:26	18° $\mathfrak{A}$ 02'01	11.08088 AU
morning rise	-702 Aug 25 j 05:18	8° $\mathfrak{Q}$ 47'20		morning rise	-696 Nov 03 j 12:33	19° $\mathfrak{A}$ 59'18	
	-702 Oct 27 j 01:30	15° $\mathfrak{Q}$		retrograde	-695 Feb 10 j 22:36	26° $\mathfrak{A}$ 53'46	
retrograde	-702 Dec 03 j 10:25	16° $\mathfrak{Q}$ 13'58		opposition	-695 Apr 21 j 20:45	23° $\mathfrak{A}$ 37'14	2°37'21
	-701 Jan 10 j 12:13	15° $\mathfrak{R}$ $\mathfrak{Q}$		min. Earth dist.	-695 Apr 22 j 03:17	23° $\mathfrak{A}$ 36'01	9.10122 AU
opposition	-701 Feb 08 j 18:48	12° $\mathfrak{Q}$ 52'46	1°57'27	direct	-695 Jul 02 j 07:57	20° $\mathfrak{A}$ 17'10	
min. Earth dist.	-701 Feb 08 j 13:08	12° $\mathfrak{Q}$ 53'52	8.55143 AU	evening set	-695 Oct 12 j 18:25	27° $\mathfrak{A}$ 20'48	
direct	-701 Apr 19 j 14:56	9° $\mathfrak{Q}$ 26'03					
	-701 Jul 15 j 20:50	15° $\mathfrak{Q}$		conjunction	-695 Oct 29 j 07:26	29° $\mathfrak{A}$ 16'16	2°02'52
evening set	-701 Aug 03 j 12:28	17° $\mathfrak{Q}$ 09'45		minimum elong	-695 Oct 29 j 07:28	29° $\mathfrak{A}$ 16'17	2°02'52
				max. Earth dist.	-695 Oct 28 j 22:52	29° $\mathfrak{A}$ 13'46	11.11219 AU
					-695 Nov 04 j 12:54	0° $\mathfrak{M}$	
conjunction	-701 Aug 20 j 22:49	19° $\mathfrak{Q}$ 16'57	1°46'07	morning rise	-695 Nov 14 j 18:36	1° $\mathfrak{M}$ 11'12	
minimum elong	-701 Aug 20 j 22:45	19° $\mathfrak{Q}$ 16'56	1°46'08	retrograde	-694 Feb 22 j 11:57	8° $\mathfrak{M}$ 05'29	
max. Earth dist.	-701 Aug 21 j 04:15	19° $\mathfrak{Q}$ 18'37	10.61674 AU	opposition	-694 May 03 j 19:29	4° $\mathfrak{M}$ 48'42	2°21'04
morning rise	-701 Sep 07 j 03:57	21° $\mathfrak{Q}$ 22'36		min. Earth dist.	-694 May 04 j 03:15	4° $\mathfrak{M}$ 47'16	9.12015 AU
retrograde	-701 Dec 15 j 20:45	28° $\mathfrak{Q}$ 40'16		direct	-694 Jul 14 j 04:45	1° $\mathfrak{M}$ 29'17	
opposition	-700 Feb 21 j 14:34	25° $\mathfrak{Q}$ 20'28	2°21'45	evening set	-694 Oct 23 j 23:28	8° $\mathfrak{M}$ 29'49	
min. Earth dist.	-700 Feb 21 j 11:33	25° $\mathfrak{Q}$ 21'03	8.68100 AU				
direct	-700 May 01 j 22:40	21° $\mathfrak{Q}$ 54'55		conjunction	-694 Nov 09 j 11:53	10° $\mathfrak{M}$ 25'04	1°47'19
evening set	-700 Aug 15 j 11:03	29° $\mathfrak{Q}$ 30'10		minimum elong	-694 Nov 09 j 11:56	10° $\mathfrak{M}$ 25'04	1°47'19
	-700 Aug 19 j 15:16	0° $\mathfrak{M}$		max. Earth dist.	-694 Nov 09 j 02:47	10° $\mathfrak{M}$ 22'24	11.11914 AU
conjunction	-700 Sep 01 j 16:01	1° $\mathfrak{M}$ 34'16	2°03'16	morning rise	-694 Nov 25 j 23:09	12° $\mathfrak{M}$ 20'02	

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Attention, astronomical year style is used: The year -694 in astronomical counting style is the year 695 BCE in historical counting style.

	-694 Dec 20 j 11:00	15°♄		conjunction	-687 Jan 15 j 15:51	19°♄19'51	0°-46'-14
retrograde	-693 Mar 06 j 04:04	19°♄15'43		minimum elong	-687 Jan 15 j 15:49	19°♄19'51	0°46'15
opposition	-693 May 15 j 18:25	15°♄58'25	1°59'31	max. Earth dist.	-687 Jan 15 j 07:47	19°♄17'23	10.69326 AU
min. Earth dist.	-693 May 16 j 02:16	15°♄56'58	9.11437 AU	morning rise	-687 Feb 01 j 15:38	21°♄23'50	
	-693 May 29 j 05:35	15°♄		retrograde	-687 May 17 j 13:36	28°♄59'44	
direct	-693 Jul 26 j 00:02	12°♄39'29		opposition	-687 Jul 27 j 00:35	25°♄35'27	-1°-14'-16
	-693 Sep 19 j 02:31	15°♄		min. Earth dist.	-687 Jul 27 j 06:15	25°♄34'22	8.63143 AU
evening set	-693 Nov 04 j 03:10	19°♄38'15		direct	-687 Oct 03 j 11:39	22°♄15'07	
				evening set	-686 Jan 11 j 06:04	29°♄35'35	
conjunction	-693 Nov 20 j 15:42	21°♄33'46	1°27'41		-686 Jan 14 j 14:18	0°≈	
minimum elong	-693 Nov 20 j 15:44	21°♄33'46	1°27'40	conjunction	-686 Jan 28 j 04:36	1°≈40'43	-1°-13'-20
max. Earth dist.	-693 Nov 20 j 06:32	21°♄31'04	11.10149 AU	minimum elong	-686 Jan 28 j 04:34	1°≈40'43	1°13'22
morning rise	-693 Dec 07 j 03:45	23°♄29'14		max. Earth dist.	-686 Jan 27 j 21:32	1°≈38'32	10.56890 AU
	-692 Feb 22 j 00:10	0°♄		morning rise	-686 Feb 14 j 07:37	3°≈47'16	
retrograde	-692 Mar 17 j 00:05	0°♄27'54		retrograde	-686 May 31 j 01:28	11°≈33'50	
	-692 Apr 10 j 05:31	30°♄		opposition	-686 Aug 09 j 04:26	8°≈08'07	-1°-46'-26
opposition	-692 May 26 j 18:32	27°♄09'52	1°33'22	min. Earth dist.	-686 Aug 09 j 09:01	8°≈07'14	8.50517 AU
min. Earth dist.	-692 May 27 j 02:45	27°♄08'21	9.08420 AU	direct	-686 Oct 16 j 01:13	4°≈46'51	
direct	-692 Aug 05 j 16:47	23°♄51'14		evening set	-685 Jan 24 j 02:51	12°≈15'50	
	-692 Nov 07 j 01:04	0°♄					
evening set	-692 Nov 14 j 07:40	0°♄49'43		conjunction	-685 Feb 10 j 04:20	14°≈23'33	-1°-37'-35
conjunction	-692 Nov 30 j 20:45	2°♄45'55	1°04'36	minimum elong	-685 Feb 10 j 04:17	14°≈23'32	1°37'37
minimum elong	-692 Nov 30 j 20:47	2°♄45'56	1°04'35	max. Earth dist.	-685 Feb 09 j 23:27	14°≈22'01	10.44165 AU
max. Earth dist.	-692 Nov 30 j 10:35	2°♄42'56	11.05992 AU		-685 Feb 15 j 00:26	15°≈	
morning rise	-692 Dec 17 j 10:24	4°♄42'22		morning rise	-685 Feb 27 j 10:41	16°≈32'46	
retrograde	-691 Mar 28 j 21:51	11°♄45'34		retrograde	-685 Jun 13 j 21:26	24°≈30'11	
opposition	-691 Jun 07 j 20:43	8°♄26'36	1°03'24	opposition	-685 Aug 22 j 15:05	21°≈03'04	-2°-14'-16
min. Earth dist.	-691 Jun 08 j 05:51	8°♄24'55	9.03070 AU	min. Earth dist.	-685 Aug 22 j 17:54	21°≈02'30	8.37933 AU
direct	-691 Aug 17 j 09:17	5°♄08'02		direct	-685 Oct 29 j 00:12	17°≈40'44	
evening set	-691 Nov 25 j 14:33	12°♄07'50		evening set	-684 Feb 06 j 10:53	25°≈18'59	
conjunction	-691 Dec 12 j 04:45	14°♄05'09	0°38'46	conjunction	-684 Feb 23 j 15:48	27°≈29'23	-1°-57'-29
minimum elong	-691 Dec 12 j 04:46	14°♄05'10	0°38'45	minimum elong	-684 Feb 23 j 15:46	27°≈29'22	1°57'31
max. Earth dist.	-691 Dec 11 j 17:52	14°♄01'56	10.99579 AU	max. Earth dist.	-684 Feb 23 j 14:02	27°≈28'49	10.31782 AU
morning rise	-691 Dec 28 j 20:32	16°♄02'58		morning rise	-684 Mar 12 j 01:36	29°≈41'22	
retrograde	-690 Apr 10 j 02:29	23°♄12'19			-684 Mar 14 j 13:40	0°♄	
opposition	-690 Jun 20 j 02:18	19°♄52'13	0°30'31	retrograde	-684 Jun 27 j 02:54	7°♄49'03	
min. Earth dist.	-690 Jun 20 j 11:26	19°♄50'31	8.95561 AU	opposition	-684 Sep 04 j 08:20	4°♄20'40	-2°-35'-50
direct	-690 Aug 29 j 05:22	16°♄33'30		min. Earth dist.	-684 Sep 04 j 08:42	4°♄20'36	8.26022 AU
evening set	-690 Dec 07 j 01:33	23°♄36'10		direct	-684 Nov 10 j 05:53	0°♄57'13	
				evening set	-683 Feb 19 j 06:34	8°♄44'57	
conjunction	-690 Dec 23 j 17:24	25°♄34'59	0°11'03	conjunction	-683 Mar 08 j 15:14	10°♄58'04	-2°-11'-31
minimum elong	-690 Dec 23 j 17:25	25°♄34'59	0°11'03	minimum elong	-683 Mar 08 j 15:12	10°♄58'03	2°11'32
behind sun begin	-690 Dec 23 j 12:07	25°♄33'25		max. Earth dist.	-683 Mar 08 j 16:17	10°♄58'24	10.20392 AU
behind sun end	-690 Dec 23 j 22:42	25°♄36'33		morning rise	-683 Mar 26 j 04:37	13°♄12'44	
max. Earth dist.	-690 Dec 23 j 07:30	25°♄32'02	10.91113 AU	retrograde	-683 Jul 11 j 15:39	21°♄29'18	
morning rise	-689 Jan 09 j 11:32	27°♄34'33		opposition	-683 Sep 18 j 07:33	17°♄59'54	-2°-49'-20
	-689 Jan 31 j 01:39	0°♄		min. Earth dist.	-683 Sep 18 j 05:29	18°♄00'19	8.15425 AU
retrograde	-689 Apr 22 j 13:41	4°♄51'31		direct	-683 Nov 23 j 19:05	14°♄35'14	
desc. node	-689 May 17 j 23:35	4°♄20'48		evening set	-682 Mar 05 j 13:14	22°♄32'07	
opposition	-689 Jul 02 j 12:13	1°♄30'07	0°-4'-14	conjunction	-682 Mar 23 j 01:56	24°♄47'50	-2°-18'-24
min. Earth dist.	-689 Jul 02 j 20:14	1°♄28'37	8.86153 AU	minimum elong	-682 Mar 23 j 01:56	24°♄47'50	2°18'25
	-689 Jul 23 j 07:28	30°♄		max. Earth dist.	-682 Mar 23 j 05:18	24°♄48'56	10.10641 AU
direct	-689 Sep 10 j 02:51	28°♄11'04		morning rise	-682 Apr 09 j 19:07	27°♄05'02	
	-689 Oct 27 j 01:23	0°♄			-682 May 03 j 17:45	0°♄	
evening set	-689 Dec 18 j 18:44	5°♄18'11		retrograde	-682 Jul 26 j 09:23	5°♄28'18	
conjunction	-688 Jan 04 j 12:37	7°♄18'50	0°-17'-42	opposition	-682 Oct 02 j 11:54	1°♄58'09	-2°-53'-13
minimum elong	-688 Jan 04 j 12:36	7°♄18'50	0°17'42	min. Earth dist.	-682 Oct 02 j 08:05	1°♄58'56	8.06733 AU
max. Earth dist.	-688 Jan 04 j 04:01	7°♄16'15	10.80896 AU		-682 Oct 28 j 03:38	30°♄	
morning rise	-688 Jan 21 j 09:23	9°♄20'28		direct	-682 Dec 07 j 17:07	28°♄32'16	
retrograde	-688 May 04 j 09:07	16°♄46'23			-681 Jan 16 j 13:47	0°♄	
opposition	-688 Jul 14 j 03:20	13°♄23'34	0°-39'-39	evening set	-681 Mar 20 j 05:32	6°♄37'15	
min. Earth dist.	-688 Jul 14 j 09:56	13°♄22'19	8.75200 AU	conjunction	-681 Apr 06 j 22:32	8°♄55'21	-2°-17'-11
direct	-688 Sep 21 j 05:00	10°♄03'58					
evening set	-688 Dec 29 j 19:46	17°♄17'04					

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 19

Attention, astronomical year style is used: The year -681 in astronomical counting style is the year 682 BCE in historical counting style.

minimum elong	-681 Apr 06 j 22:34	8°Υ55'22	2°17'12	asc. node	-675 Mar 01 j 23:55	24°Π14'33	
max. Earth dist.	-681 Apr 07 j 03:40	8°Υ57'02	10.03065 AU	direct	-675 Mar 03 j 00:25	24°Π14'29	
morning rise	-681 Apr 24 j 19:33	11°Υ14'44			-675 May 28 j 05:31	0°Ϸ	
retrograde	-681 Aug 10 j 05:13	19°Υ41'56		evening set	-675 Jun 17 j 03:34	2°Ϸ24'37	
opposition	-681 Oct 16 j 19:56	16°Υ11'25	-2°-46'-38				
min. Earth dist.	-681 Oct 16 j 15:05	16°Υ12'25	8.00395 AU	conjunction	-675 Jul 05 j 06:02	4°Ϸ42'39	0°11'04
direct	-681 Dec 21 j 22:29	12°Υ44'22		minimum elong	-675 Jul 05 j 06:01	4°Ϸ42'39	0°11'04
evening set	-680 Apr 03 j 05:50	20°Υ56'00		behind sun begin	-675 Jul 05 j 00:37	4°Ϸ40'56	
				behind sun end	-675 Jul 05 j 11:25	4°Ϸ44'21	
conjunction	-680 Apr 21 j 03:05	23°Υ16'05	-2°-7'-32	max. Earth dist.	-675 Jul 05 j 16:53	4°Ϸ46'07	10.18262 AU
minimum elong	-680 Apr 21 j 03:08	23°Υ16'06	2°07'33	morning rise	-675 Jul 23 j 05:02	6°Ϸ59'36	
max. Earth dist.	-680 Apr 21 j 09:26	23°Υ18'10	9.98055 AU	retrograde	-675 Nov 02 j 09:06	14°Ϸ51'29	
morning rise	-680 May 09 j 03:32	25°Υ37'10		opposition	-674 Jan 08 j 00:07	11°Ϸ26'14	0°33'47
	-680 Jun 14 j 23:21	0°Ϸ		min. Earth dist.	-674 Jan 07 j 16:20	11°Ϸ27'49	8.23737 AU
retrograde	-680 Aug 24 j 01:38	4°Ϸ05'11		direct	-674 Mar 17 j 08:35	7°Ϸ57'06	
opposition	-680 Oct 30 j 05:51	0°Ϸ34'46	-2°-29'-33	evening set	-674 Jul 01 j 15:26	16°Ϸ00'36	
min. Earth dist.	-680 Oct 30 j 00:19	0°Ϸ35'55	7.96781 AU				
	-680 Nov 06 j 06:00	30°ϷΥ		conjunction	-674 Jul 19 j 14:10	18°Ϸ15'48	0°43'16
direct	-679 Jan 04 j 09:28	27°Υ06'43		minimum elong	-674 Jul 19 j 14:08	18°Ϸ15'47	0°43'17
	-679 Mar 02 j 12:53	0°Ϸ		max. Earth dist.	-674 Jul 19 j 23:32	18°Ϸ18'45	10.29693 AU
evening set	-679 Apr 18 j 11:33	5°Ϸ23'01		morning rise	-674 Aug 06 j 08:39	20°Ϸ29'39	
				retrograde	-674 Nov 15 j 15:29	28°Ϸ10'46	
conjunction	-679 May 06 j 12:34	7°Ϸ44'29	-1°-49'-50	opposition	-673 Jan 21 j 11:32	24°Ϸ47'03	1°11'55
minimum elong	-679 May 06 j 12:38	7°Ϸ44'30	1°49'51	min. Earth dist.	-673 Jan 21 j 05:15	24°Ϸ48'19	8.35828 AU
max. Earth dist.	-679 May 06 j 20:22	7°Ϸ47'02	9.95981 AU	direct	-673 Mar 31 j 10:38	21°Ϸ18'33	
morning rise	-679 May 24 j 15:40	10°Ϸ06'34		evening set	-673 Jul 15 j 16:54	29°Ϸ14'20	
	-679 Jul 05 j 09:55	15°Ϸ			-673 Jul 21 j 21:24	0°Ϸ	
retrograde	-679 Sep 07 j 20:17	18°Ϸ32'12					
opposition	-679 Nov 13 j 16:09	15°Ϸ02'14	-2°-2'-53	conjunction	-673 Aug 02 j 10:48	1°Ϸ26'19	1°12'25
min. Earth dist.	-679 Nov 13 j 09:33	15°Ϸ03'37	7.96244 AU	minimum elong	-673 Aug 02 j 10:45	1°Ϸ26'18	1°12'26
	-679 Nov 14 j 02:56	15°Ϸ		max. Earth dist.	-673 Aug 02 j 17:50	1°Ϸ28'31	10.42238 AU
direct	-678 Jan 19 j 00:40	11°Ϸ33'25		morning rise	-673 Aug 20 j 00:03	3°Ϸ36'50	
	-678 Mar 23 j 03:34	15°Ϸ		retrograde	-673 Nov 28 j 10:43	11°Ϸ07'38	
evening set	-678 May 03 j 19:38	19°Ϸ51'53		opposition	-672 Feb 03 j 16:16	7°Ϸ45'26	1°45'13
				min. Earth dist.	-672 Feb 03 j 11:21	7°Ϸ46'24	8.48709 AU
conjunction	-678 May 21 j 23:28	22°Ϸ13'55	-1°-25'-11	direct	-672 Apr 13 j 07:18	4°Ϸ17'48	
minimum elong	-678 May 21 j 23:31	22°Ϸ13'56	1°25'12	evening set	-672 Jul 28 j 06:57	12°Ϸ05'15	
max. Earth dist.	-678 May 22 j 08:52	22°Ϸ17'00	9.97108 AU				
morning rise	-678 Jun 09 j 03:58	24°Ϸ36'07		conjunction	-672 Aug 14 j 19:32	14°Ϸ13'53	1°37'12
	-678 Jul 26 j 08:30	0°Π		minimum elong	-672 Aug 14 j 19:29	14°Ϸ13'52	1°37'12
retrograde	-678 Sep 22 j 10:35	2°Π56'17		max. Earth dist.	-672 Aug 15 j 00:23	14°Ϸ15'23	10.55214 AU
	-678 Nov 21 j 09:47	30°Ϸ			-672 Aug 21 j 01:20	15°Ϸ	
opposition	-678 Nov 28 j 00:45	29°Ϸ27'07	-1°-28'-32	morning rise	-672 Sep 01 j 03:17	16°Ϸ21'01	
min. Earth dist.	-678 Nov 27 j 17:00	29°Ϸ28'44	7.98924 AU	retrograde	-672 Dec 09 j 23:15	23°Ϸ42'29	
direct	-677 Feb 02 j 18:14	25°Ϸ57'47		opposition	-671 Feb 15 j 14:23	20°Ϸ21'39	2°12'21
	-677 Apr 13 j 01:59	0°Π		min. Earth dist.	-671 Feb 15 j 10:21	20°Ϸ22'26	8.61704 AU
evening set	-677 May 19 j 03:12	4°Π15'50		direct	-671 Apr 26 j 19:08	16°Ϸ55'06	
				evening set	-671 Aug 10 j 09:47	24°Ϸ34'00	
conjunction	-677 Jun 06 j 08:21	6°Π37'27	0°-55'-22				
minimum elong	-677 Jun 06 j 08:24	6°Π37'28	0°55'23	conjunction	-671 Aug 27 j 17:05	26°Ϸ39'27	1°56'43
max. Earth dist.	-677 Jun 06 j 18:53	6°Π40'53	10.01418 AU	minimum elong	-671 Aug 27 j 17:02	26°Ϸ39'26	1°56'43
morning rise	-677 Jun 24 j 12:40	8°Π58'47		max. Earth dist.	-671 Aug 27 j 20:21	26°Ϸ40'27	10.67983 AU
retrograde	-677 Oct 06 j 18:01	17°Π10'56		morning rise	-671 Sep 13 j 19:26	28°Ϸ43'24	
opposition	-677 Dec 12 j 05:44	13°Π42'53	0°-49'-3		-671 Sep 24 j 17:22	0°Ϸ	
min. Earth dist.	-677 Dec 11 j 21:13	13°Π44'39	8.04680 AU	retrograde	-671 Dec 22 j 05:46	5°Ϸ56'37	
direct	-676 Feb 17 j 11:08	10°Π13'19		opposition	-670 Feb 28 j 06:14	2°Ϸ37'01	2°32'36
evening set	-676 Jun 02 j 06:53	18°Π28'28		min. Earth dist.	-670 Feb 28 j 03:30	2°Ϸ37'33	8.74194 AU
					-670 Apr 08 j 03:43	30°Ϸ	
conjunction	-676 Jun 20 j 11:34	20°Π48'43	0°-22'-33	direct	-670 May 09 j 21:29	29°Ϸ11'42	
minimum elong	-676 Jun 20 j 11:35	20°Π48'44	0°22'34		-670 Jun 10 j 09:43	0°Ϸ	
max. Earth dist.	-676 Jun 20 j 22:37	20°Π52'18	10.08631 AU	evening set	-670 Aug 23 j 01:55	6°Ϸ42'18	
morning rise	-676 Jul 08 j 13:59	23°Π08'15					
	-676 Sep 13 j 20:24	0°Ϸ		conjunction	-670 Sep 09 j 04:18	8°Ϸ44'51	2°10'31
retrograde	-676 Oct 19 j 17:35	1°Ϸ10'42		minimum elong	-670 Sep 09 j 04:15	8°Ϸ44'51	2°10'31
	-676 Nov 25 j 00:31	30°ϷΠ		max. Earth dist.	-670 Sep 09 j 06:06	8°Ϸ45'24	10.79964 AU
opposition	-676 Dec 25 j 05:56	27°Π43'59	0°-7'-21	morning rise	-670 Sep 26 j 01:45	10°Ϸ46'00	
min. Earth dist.	-676 Dec 24 j 21:16	27°Π45'46	8.13135 AU	retrograde	-669 Jan 03 j 05:23	17°Ϸ52'17	





























































































































## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 20

Attention, astronomical year style is used: The year -669 in astronomical counting style is the year 670 BCE in historical counting style.

opposition	-669 Mar 12 j 16:54	14° $\mathring{M}$ 33'47	2°45'38	direct	-663 Jul 31 j 22:48	19° $\mathring{M}$ 11'41	
min. Earth dist.	-669 Mar 12 j 16:15	14° $\mathring{M}$ 33'55	8.85632 AU	evening set	-663 Nov 09 j 19:15	26° $\mathring{M}$ 09'11	
direct	-669 May 22 j 16:39	11° $\mathring{M}$ 09'45					
evening set	-669 Sep 04 j 08:20	18° $\mathring{M}$ 32'34		conjunction	-663 Nov 26 j 07:53	28° $\mathring{M}$ 04'45	1°15'01
				minimum elong	-663 Nov 26 j 07:55	28° $\mathring{M}$ 04'46	1°15'00
conjunction	-669 Sep 21 j 06:12	20° $\mathring{M}$ 32'37	2°18'26	max. Earth dist.	-663 Nov 25 j 22:25	28° $\mathring{M}$ 01'58	11.10721 AU
minimum elong	-669 Sep 21 j 06:10	20° $\mathring{M}$ 32'37	2°18'25	morning rise	-663 Dec 12 j 20:42	0° $\mathring{Z}$ 00'25	
max. Earth dist.	-669 Sep 21 j 05:38	20° $\mathring{M}$ 32'27	10.90661 AU		-663 Dec 12 j 19:14	0° $\mathring{Z}$	
morning rise	-669 Oct 07 j 23:38	22° $\mathring{M}$ 31'24		retrograde	-662 Mar 23 j 23:50	7° $\mathring{Z}$ 00'22	
retrograde	-668 Jan 15 j 00:45	29° $\mathring{M}$ 32'12		opposition	-662 Jun 02 j 21:46	3° $\mathring{Z}$ 42'28	1°16'51
opposition	-668 Mar 23 j 23:07	26° $\mathring{M}$ 14'37	2°51'27	min. Earth dist.	-662 Jun 03 j 06:00	3° $\mathring{Z}$ 40'57	9.08453 AU
min. Earth dist.	-668 Mar 24 j 00:46	26° $\mathring{M}$ 14'18	8.95563 AU	direct	-662 Aug 12 j 15:55	0° $\mathring{Z}$ 24'33	
direct	-668 Jun 03 j 05:23	22° $\mathring{M}$ 51'52		evening set	-662 Nov 21 j 00:20	7° $\mathring{Z}$ 22'33	
	-668 Sep 14 j 03:43	0° $\mathring{Z}$					
evening set	-668 Sep 15 j 06:15	0° $\mathring{Z}$ 07'40		conjunction	-662 Dec 07 j 13:58	9° $\mathring{Z}$ 19'01	0°50'22
				minimum elong	-662 Dec 07 j 13:59	9° $\mathring{Z}$ 19'02	0°50'21
conjunction	-668 Oct 02 j 00:23	2° $\mathring{Z}$ 05'41	2°20'30	max. Earth dist.	-662 Dec 07 j 04:33	9° $\mathring{Z}$ 16'15	11.05511 AU
minimum elong	-668 Oct 02 j 00:23	2° $\mathring{Z}$ 05'41	2°20'30	morning rise	-662 Dec 24 j 04:27	11° $\mathring{Z}$ 15'50	
max. Earth dist.	-668 Oct 01 j 21:05	2° $\mathring{Z}$ 04'43	10.99671 AU	retrograde	-661 Apr 05 j 02:37	18° $\mathring{Z}$ 21'08	
morning rise	-668 Oct 18 j 14:53	4° $\mathring{Z}$ 02'39		opposition	-661 Jun 15 j 01:11	15° $\mathring{Z}$ 02'14	0°45'15
retrograde	-667 Jan 25 j 15:43	10° $\mathring{Z}$ 59'27		min. Earth dist.	-661 Jun 15 j 09:29	15° $\mathring{Z}$ 00'43	9.02000 AU
opposition	-667 Apr 05 j 01:38	7° $\mathring{Z}$ 42'29	2°50'17	direct	-661 Aug 24 j 09:32	11° $\mathring{Z}$ 44'18	
min. Earth dist.	-667 Apr 05 j 04:45	7° $\mathring{Z}$ 41'54	9.03617 AU	evening set	-661 Dec 02 j 08:48	18° $\mathring{Z}$ 44'23	
direct	-667 Jun 15 j 12:01	4° $\mathring{Z}$ 20'58					
evening set	-667 Sep 26 j 20:58	11° $\mathring{Z}$ 30'41		conjunction	-661 Dec 18 j 23:43	20° $\mathring{Z}$ 42'11	0°23'27
				minimum elong	-661 Dec 18 j 23:44	20° $\mathring{Z}$ 42'11	0°23'27
conjunction	-667 Oct 13 j 12:26	13° $\mathring{Z}$ 27'13	2°16'58	max. Earth dist.	-661 Dec 18 j 13:14	20° $\mathring{Z}$ 39'04	10.97936 AU
minimum elong	-667 Oct 13 j 12:27	13° $\mathring{Z}$ 27'13	2°16'58	morning rise	-660 Jan 04 j 16:31	22° $\mathring{Z}$ 40'35	
max. Earth dist.	-667 Oct 13 j 07:40	13° $\mathring{Z}$ 25'48	11.06663 AU	retrograde	-660 Apr 16 j 09:58	29° $\mathring{Z}$ 52'49	
morning rise	-667 Oct 30 j 00:52	15° $\mathring{Z}$ 22'53		opposition	-660 Jun 26 j 08:31	26° $\mathring{Z}$ 32'42	0°11'17
retrograde	-666 Feb 06 j 06:38	22° $\mathring{Z}$ 17'13		min. Earth dist.	-660 Jun 26 j 17:32	26° $\mathring{Z}$ 31'01	8.93285 AU
opposition	-666 Apr 17 j 01:36	19° $\mathring{Z}$ 00'37	2°42'33	direct	-660 Sep 04 j 03:45	23° $\mathring{Z}$ 14'28	
min. Earth dist.	-666 Apr 17 j 05:38	18° $\mathring{Z}$ 59'53	9.09489 AU	desc. node	-660 Oct 26 j 08:04	25° $\mathring{Z}$ 26'12	
direct	-666 Jun 27 j 14:35	15° $\mathring{Z}$ 40'14			-660 Dec 10 j 07:45	0° $\mathring{Z}$	
evening set	-666 Oct 08 j 06:21	22° $\mathring{Z}$ 44'58		evening set	-660 Dec 12 j 22:38	0° $\mathring{Z}$ 18'23	
conjunction	-666 Oct 24 j 20:02	24° $\mathring{Z}$ 40'31	2°08'10	conjunction	-660 Dec 29 j 15:16	2° $\mathring{Z}$ 17'52	0°-4'-56
minimum elong	-666 Oct 24 j 20:04	24° $\mathring{Z}$ 40'31	2°08'10	minimum elong	-660 Dec 29 j 15:16	2° $\mathring{Z}$ 17'52	0°04'57
max. Earth dist.	-666 Oct 24 j 14:26	24° $\mathring{Z}$ 38'53	11.11376 AU	behind sun begin	-660 Dec 29 j 08:27	2° $\mathring{Z}$ 15'50	
morning rise	-666 Nov 10 j 07:11	26° $\mathring{Z}$ 35'25		behind sun end	-660 Dec 29 j 22:06	2° $\mathring{Z}$ 19'53	
	-666 Dec 12 j 09:38	0° $\mathring{M}$		max. Earth dist.	-660 Dec 29 j 04:07	2° $\mathring{Z}$ 14'32	10.88229 AU
retrograde	-665 Feb 17 j 20:51	3° $\mathring{M}$ 28'48		morning rise	-659 Jan 15 j 10:47	4° $\mathring{Z}$ 18'13	
opposition	-665 Apr 29 j 00:11	0° $\mathring{M}$ 12'19	2°28'43	retrograde	-659 Apr 28 j 23:53	11° $\mathring{Z}$ 38'53	
min. Earth dist.	-665 Apr 29 j 05:32	0° $\mathring{M}$ 11'20	9.12980 AU	opposition	-659 Jul 08 j 20:32	8° $\mathring{Z}$ 17'22	0°-23'-52
	-665 May 01 j 19:19	30° $\mathring{R}$ $\mathring{Z}$		min. Earth dist.	-659 Jul 09 j 05:40	8° $\mathring{Z}$ 15'39	8.82638 AU
direct	-665 Jul 09 j 10:45	26° $\mathring{Z}$ 52'55		direct	-659 Sep 16 j 04:21	4° $\mathring{Z}$ 58'33	
	-665 Sep 12 j 01:04	0° $\mathring{M}$		evening set	-659 Dec 24 j 19:23	12° $\mathring{Z}$ 07'56	
evening set	-665 Oct 19 j 12:05	3° $\mathring{M}$ 53'51					
				conjunction	-658 Jan 10 j 14:14	14° $\mathring{Z}$ 09'28	0°-33'-34
conjunction	-665 Nov 05 j 00:39	5° $\mathring{M}$ 48'56	1°54'33	minimum elong	-658 Jan 10 j 14:13	14° $\mathring{Z}$ 09'27	0°33'35
minimum elong	-665 Nov 05 j 00:42	5° $\mathring{M}$ 48'56	1°54'34	max. Earth dist.	-658 Jan 10 j 04:06	14° $\mathring{Z}$ 06'23	10.76795 AU
max. Earth dist.	-665 Nov 04 j 17:28	5° $\mathring{M}$ 46'49	11.13663 AU	morning rise	-658 Jan 27 j 12:33	16° $\mathring{Z}$ 12'05	
morning rise	-665 Nov 21 j 11:36	7° $\mathring{M}$ 43'36		retrograde	-658 May 11 j 23:18	23° $\mathring{Z}$ 42'27	
retrograde	-664 Feb 29 j 11:00	14° $\mathring{M}$ 37'36		opposition	-658 Jul 21 j 14:24	20° $\mathring{Z}$ 19'20	0°-58'-55
opposition	-664 May 09 j 22:30	11° $\mathring{M}$ 20'57	2°09'23	min. Earth dist.	-658 Jul 21 j 22:21	20° $\mathring{Z}$ 17'50	8.70533 AU
min. Earth dist.	-664 May 10 j 05:42	11° $\mathring{M}$ 19'38	9.13992 AU	direct	-658 Sep 28 j 09:02	16° $\mathring{Z}$ 59'44	
direct	-664 Jul 20 j 05:13	8° $\mathring{M}$ 02'16		evening set	-657 Jan 06 j 00:36	24° $\mathring{Z}$ 15'58	
evening set	-664 Oct 29 j 15:45	15° $\mathring{M}$ 00'47					
	-664 Oct 29 j 13:01	15° $\mathring{M}$		conjunction	-657 Jan 22 j 21:59	26° $\mathring{Z}$ 19'49	-1°-1'-25
				minimum elong	-657 Jan 22 j 21:56	26° $\mathring{Z}$ 19'48	1°01'26
conjunction	-664 Nov 15 j 03:57	16° $\mathring{M}$ 55'52	1°36'39	max. Earth dist.	-657 Jan 22 j 13:45	26° $\mathring{Z}$ 17'17	10.64148 AU
minimum elong	-664 Nov 15 j 03:59	16° $\mathring{M}$ 55'52	1°36'38	morning rise	-657 Feb 08 j 23:16	28° $\mathring{Z}$ 24'57	
max. Earth dist.	-664 Nov 14 j 18:54	16° $\mathring{M}$ 53'13	11.13453 AU		-657 Feb 22 j 10:04	0° $\mathring{Z}$	
morning rise	-664 Dec 01 j 15:36	18° $\mathring{M}$ 50'49		retrograde	-657 May 25 j 07:12	6° $\mathring{Z}$ 05'55	
retrograde	-663 Mar 12 j 03:45	25° $\mathring{M}$ 47'00		opposition	-657 Aug 03 j 14:41	2° $\mathring{Z}$ 41'07	-1°-32'-20
opposition	-663 May 21 j 21:22	22° $\mathring{M}$ 29'52	1°45'11	min. Earth dist.	-657 Aug 03 j 20:36	2° $\mathring{Z}$ 39'59	8.57522 AU
min. Earth dist.	-663 May 22 j 05:32	22° $\mathring{M}$ 28'22	9.12478 AU		-657 Sep 13 j 01:58	30° $\mathring{R}$ $\mathring{Z}$	



Attention, astronomical year style is used: The year -657 in astronomical counting style is the year 658 BCE in historical counting style.

direct	-657 Oct 10 j 19:02	29°  20'30		min. Earth dist.	-651 Oct 23 j 20:17	24°  18'15	7.96143 AU
	-657 Nov 07 j 01:33	0° 		direct	-651 Dec 29 j 05:11	20°  48'48	
evening set	-656 Jan 18 j 15:59	6°  44'54		evening set	-650 Apr 11 j 22:07	29°  03'59	
					-650 Apr 19 j 02:28	0° 	
conjunction	-656 Feb 04 j 16:06	8°  51'17	-1°-27'-5				
minimum elong	-656 Feb 04 j 16:04	8°  51'16	1°27'06	conjunction	-650 Apr 29 j 21:44	1°  25'11	-1°-58'-54
max. Earth dist.	-656 Feb 04 j 09:20	8°  49'10	10.50873 AU	minimum elong	-650 Apr 29 j 21:48	1°  25'12	1°58'55
morning rise	-656 Feb 21 j 20:40	10°  59'06		max. Earth dist.	-650 Apr 30 j 06:34	1°  28'06	9.94629 AU
	-656 Mar 28 j 11:19	15° 		morning rise	-650 May 17 j 23:42	3°  47'10	
retrograde	-656 Jun 06 j 23:53	18°  55'104		retrograde	-650 Sep 01 j 13:13	12°  15'11	
opposition	-656 Aug 15 j 21:35	15°  24'37	-2°-2'-18	opposition	-650 Nov 07 j 12:51	8°  44'15	-2°-16'-15
min. Earth dist.	-656 Aug 16 j 01:50	15°  23'47	8.44213 AU	min. Earth dist.	-650 Nov 07 j 05:25	8°  45'48	7.94246 AU
	-656 Aug 21 j 03:47	15°  R 		direct	-649 Jan 12 j 18:23	5°  15'08	
direct	-656 Oct 22 j 12:42	12°  02'47		evening set	-649 Apr 27 j 05:54	13°  33'36	
	-656 Dec 20 j 09:21	15° 			-649 May 08 j 07:14	15° 	
evening set	-655 Jan 30 j 18:23	19°  36'20					
				conjunction	-649 May 15 j 08:46	15°  55'44	-1°-37'-13
conjunction	-655 Feb 16 j 21:33	21°  45'25	-1°-49'-6	minimum elong	-649 May 15 j 08:50	15°  55'45	1°37'13
minimum elong	-655 Feb 16 j 21:30	21°  45'24	1°49'08	max. Earth dist.	-649 May 15 j 19:08	15°  59'08	9.94439 AU
max. Earth dist.	-655 Feb 16 j 16:12	21°  43'43	10.37609 AU	morning rise	-649 Jun 02 j 12:48	18°  18'14	
morning rise	-655 Mar 06 j 05:40	23°  56'04		retrograde	-649 Sep 16 j 06:45	26°  41'59	
	-655 May 02 j 23:41	0° 		opposition	-649 Nov 21 j 22:50	23°  11'46	-1°-45'-3
retrograde	-655 Jun 21 j 01:26	1°  58'50		min. Earth dist.	-649 Nov 21 j 14:40	23°  13'28	7.95671 AU
	-655 Aug 10 j 02:25	30°  R 		direct	-648 Jan 27 j 11:07	19°  42'05	
opposition	-655 Aug 29 j 11:27	28°  30'52	-2°-26'-58	evening set	-648 May 11 j 14:30	28°  01'14	
min. Earth dist.	-655 Aug 29 j 14:12	28°  30'19	8.31257 AU		-648 May 26 j 19:58	0° 	
direct	-655 Nov 04 j 13:33	25°  07'41					
	-654 Jan 20 j 12:24	0° 		conjunction	-648 May 29 j 19:16	0°  II23'21	-1°-9'-28
evening set	-654 Feb 13 j 08:06	2°  50'56		minimum elong	-648 May 29 j 19:19	0°  II23'22	1°09'28
				max. Earth dist.	-648 May 30 j 06:22	0°  II26'59	9.97567 AU
conjunction	-654 Mar 02 j 14:47	5°  02'47	-2°-5'-58	morning rise	-648 Jun 16 j 23:54	2°  II45'24	
minimum elong	-654 Mar 02 j 14:45	5°  02'46	2°06'00	retrograde	-648 Sep 29 j 18:02	11°  II02'06	
max. Earth dist.	-654 Mar 02 j 11:42	5°  01'47	10.25033 AU	opposition	-648 Dec 05 j 06:02	7°  II33'01	-1°-7'-28
morning rise	-654 Mar 20 j 02:35	7°  16'15		min. Earth dist.	-648 Dec 04 j 21:34	7°  II34'47	8.00340 AU
retrograde	-654 Jul 05 j 09:54	15°  28'56		direct	-647 Feb 10 j 05:01	4°  II03'05	
opposition	-654 Sep 12 j 07:52	11°  59'39	-2°-44'-22	evening set	-647 May 26 j 20:34	12°  II20'23	
min. Earth dist.	-654 Sep 12 j 08:56	11°  59'26	8.19337 AU				
direct	-654 Nov 17 j 23:48	8°  35'06		conjunction	-647 Jun 14 j 01:37	14°  II41'31	0°-37'-40
evening set	-653 Feb 27 j 09:21	16°  32'02		minimum elong	-647 Jun 14 j 01:39	14°  II41'32	0°37'41
				max. Earth dist.	-647 Jun 14 j 12:54	14°  II45'11	10.03816 AU
conjunction	-653 Mar 16 j 20:06	18°  34'39	-2°-16'-16	morning rise	-647 Jul 02 j 05:15	17°  II02'09	
minimum elong	-653 Mar 16 j 20:05	18°  34'38	2°16'17	retrograde	-647 Oct 13 j 21:05	25°  II09'45	
max. Earth dist.	-653 Mar 16 j 20:08	18°  34'39	10.13837 AU	opposition	-647 Dec 19 j 08:58	21°  II42'06	0°-26'-20
morning rise	-653 Apr 03 j 11:42	20°  58'50		min. Earth dist.	-647 Dec 19 j 00:22	21°  II43'53	8.07959 AU
retrograde	-653 Jul 20 j 00:15	29°  19'40		direct	-646 Feb 24 j 20:43	18°  II12'16	
opposition	-653 Sep 26 j 09:55	25°  49'20	-2°-52'-50	evening set	-646 Jun 10 j 21:07	26°  II25'26	
min. Earth dist.	-653 Sep 26 j 08:44	25°  49'35	8.09124 AU				
direct	-653 Dec 01 j 19:07	22°  32'27		conjunction	-646 Jun 29 j 00:46	28°  II44'42	0°-4'-10
	-652 Mar 09 j 13:36	0° 		minimum elong	-646 Jun 29 j 00:46	28°  II44'42	0°04'10
evening set	-652 Mar 12 j 21:18	0°  Y25'22		behind sun begin	-646 Jun 28 j 17:32	28°  II42'24	
				behind sun end	-646 Jun 29 j 07:59	28°  II47'00	
conjunction	-652 Mar 30 j 12:27	2°  Y42'37	-2°-18'-50	max. Earth dist.	-646 Jun 29 j 11:43	28°  II48'13	10.12772 AU
minimum elong	-652 Mar 30 j 12:28	2°  Y42'37	2°18'51		-646 Jul 08 j 19:09	0° 	
max. Earth dist.	-652 Mar 30 j 15:44	2°  Y43'41	10.04676 AU	morning rise	-646 Jul 17 j 01:46	1°  03'04	
morning rise	-652 Apr 17 j 07:51	5°  Y01'14		asc. node	-646 Aug 14 j 08:37	4°  025'01	
retrograde	-652 Aug 02 j 18:46	13°  Y27'42		retrograde	-646 Oct 27 j 16:35	9°  000'19	
opposition	-652 Oct 09 j 16:33	9°  Y56'44	-2°-51'-7	opposition	-645 Jan 02 j 06:22	5°  034'18	0°15'27
min. Earth dist.	-652 Oct 09 j 12:56	9°  Y57'28	8.01223 AU	min. Earth dist.	-645 Jan 01 j 21:39	5°  036'04	8.18029 AU
direct	-652 Dec 14 j 21:17	6°  Y29'35		direct	-645 Mar 11 j 08:21	2°  004'55	
evening set	-651 Mar 27 j 18:19	14°  Y39'08		evening set	-645 Jun 25 j 13:54	10°  012'06	
conjunction	-651 Apr 14 j 13:52	16°  Y58'38	-2°-13'-2	conjunction	-645 Jul 13 j 14:30	12°  028'45	0°29'03
minimum elong	-651 Apr 14 j 13:54	16°  Y58'39	2°13'03	minimum elong	-645 Jul 13 j 14:29	12°  028'45	0°29'04
max. Earth dist.	-651 Apr 14 j 20:11	17°  Y00'43	9.98124 AU	max. Earth dist.	-645 Jul 14 j 00:52	12°  032'03	10.23849 AU
morning rise	-651 May 02 j 12:47	19°  Y19'15		morning rise	-645 Jul 31 j 11:22	14°  044'11	
retrograde	-651 Aug 17 j 16:09	27°  Y48'13		retrograde	-645 Nov 10 j 03:22	22°  030'38	
opposition	-651 Oct 24 j 02:09	24°  Y17'02	-2°-38'-46	opposition	-644 Jan 15 j 21:22	19°  006'19	0°55'17

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 22

Attention, astronomical year style is used: The year -644 in astronomical counting style is the year 645 BCE in historical counting style.

min. Earth dist.	-644 Jan 15 j 12:54	19° <del>5</del> 08'01	8.29918 AU			-639 Oct 20 j 04:17	0° <del>5</del>	
direct	-644 Mar 24 j 14:13	15° <del>5</del> 37'40		retrograde		-638 Jan 21 j 01:17	6° <del>5</del> 15'50	
evening set	-644 Jul 08 j 20:52	23° <del>5</del> 37'30		opposition		-638 Mar 31 j 04:35	2° <del>5</del> 58'59	2°51'28
				min. Earth dist.		-638 Mar 31 j 07:13	2° <del>5</del> 58'29	9.00591 AU
conjunction	-644 Jul 26 j 17:11	25° <del>5</del> 51'03	0°59'49			-638 May 19 j 14:54	30° <del>8</del>	
minimum elong	-644 Jul 26 j 17:08	25° <del>5</del> 51'02	0°59'50	direct		-638 Jun 10 j 12:38	29° <del>8</del> 37'16	
max. Earth dist.	-644 Jul 27 j 02:50	25° <del>5</del> 54'05	10.36377 AU			-638 Jul 02 j 07:42	0° <del>5</del>	
morning rise	-644 Aug 13 j 08:53	28° <del>5</del> 03'10		evening set		-638 Sep 22 j 06:08	6° <del>5</del> 49'52	
	-644 Aug 29 j 16:11	0° <del>8</del>						
retrograde	-644 Nov 22 j 05:06	5° <del>8</del> 38'59		conjunction		-638 Oct 08 j 22:49	8° <del>5</del> 47'03	2°19'03
opposition	-643 Jan 28 j 05:49	2° <del>8</del> 16'21	1°30'59	minimum elong		-638 Oct 08 j 22:50	8° <del>5</del> 47'03	2°19'03
min. Earth dist.	-643 Jan 27 j 22:29	2° <del>8</del> 17'48	8.42931 AU	max. Earth dist.		-638 Oct 08 j 18:18	8° <del>5</del> 45'43	11.03917 AU
	-643 Feb 28 j 12:59	30° <del>8</del>		morning rise		-638 Oct 25 j 11:57	10° <del>5</del> 43'16	
direct	-643 Apr 07 j 13:14	28° <del>5</del> 48'40		retrograde		-637 Feb 01 j 16:32	17° <del>5</del> 38'50	
	-643 May 15 j 06:54	0° <del>8</del>		opposition		-637 Apr 12 j 06:10	14° <del>5</del> 22'22	2°46'34
evening set	-643 Jul 22 j 16:43	6° <del>8</del> 40'14		min. Earth dist.		-637 Apr 12 j 11:19	14° <del>5</del> 21'25	9.07038 AU
				direct		-637 Jun 22 j 17:10	11° <del>5</del> 01'39	
conjunction	-643 Aug 09 j 07:55	8° <del>8</del> 50'26	1°26'42	evening set		-637 Oct 03 j 18:12	18° <del>5</del> 08'50	
minimum elong	-643 Aug 09 j 07:52	8° <del>8</del> 50'25	1°26'43					
max. Earth dist.	-643 Aug 09 j 15:58	8° <del>8</del> 52'56	10.49643 AU	conjunction		-637 Oct 20 j 08:30	20° <del>5</del> 04'50	2°12'31
morning rise	-643 Aug 26 j 18:04	10° <del>8</del> 59'07		minimum elong		-637 Oct 20 j 08:32	20° <del>5</del> 04'51	2°12'31
	-643 Oct 01 j 19:08	15° <del>8</del>		max. Earth dist.		-637 Oct 20 j 01:22	20° <del>5</del> 02'44	11.09220 AU
retrograde	-643 Dec 04 j 22:52	18° <del>8</del> 24'59		morning rise		-637 Nov 05 j 20:13	22° <del>5</del> 00'06	
opposition	-642 Feb 10 j 07:28	15° <del>8</del> 03'56	2°01'01	retrograde		-636 Feb 13 j 05:44	28° <del>5</del> 54'06	
min. Earth dist.	-642 Feb 10 j 02:11	15° <del>8</del> 04'58	8.56339 AU	opposition		-636 Apr 23 j 05:46	25° <del>5</del> 37'40	2°35'21
	-642 Feb 11 j 03:29	15° <del>8</del>		min. Earth dist.		-636 Apr 23 j 12:25	25° <del>5</del> 36'26	9.11150 AU
direct	-642 Apr 21 j 03:47	11° <del>8</del> 37'20		direct		-636 Jul 03 j 16:42	22° <del>5</del> 17'47	
	-642 Jun 26 j 06:24	15° <del>8</del>		evening set		-636 Oct 14 j 01:39	29° <del>5</del> 20'41	
evening set	-642 Aug 05 j 01:25	19° <del>8</del> 20'17				-636 Oct 19 j 18:08	0° <del>8</del>	
conjunction	-642 Aug 22 j 11:08	21° <del>8</del> 27'10	1°48'40	conjunction		-636 Oct 30 j 14:38	1° <del>8</del> 16'01	2°00'57
minimum elong	-642 Aug 22 j 11:04	21° <del>8</del> 27'09	1°48'40	minimum elong		-636 Oct 30 j 14:40	1° <del>8</del> 16'02	2°00'57
max. Earth dist.	-642 Aug 22 j 16:21	21° <del>8</del> 28'46	10.62923 AU	max. Earth dist.		-636 Oct 30 j 06:16	1° <del>8</del> 13'34	11.12138 AU
morning rise	-642 Sep 08 j 15:48	23° <del>8</del> 32'31		morning rise		-636 Nov 16 j 01:46	3° <del>8</del> 10'52	
	-642 Nov 16 j 16:17	0° <del>8</del>		retrograde		-635 Feb 23 j 19:46	10° <del>8</del> 04'50	
retrograde	-642 Dec 17 j 07:31	0° <del>8</del> 49'24		opposition		-635 May 05 j 04:08	6° <del>8</del> 48'06	2°18'21
	-641 Jan 17 j 09:25	30° <del>8</del>		min. Earth dist.		-635 May 05 j 11:22	6° <del>8</del> 46'47	9.12806 AU
opposition	-641 Feb 23 j 02:33	27° <del>8</del> 29'46	2°24'23	direct		-635 Jul 15 j 14:09	3° <del>8</del> 28'52	
min. Earth dist.	-641 Feb 22 j 23:40	27° <del>8</del> 30'19	8.69417 AU	evening set		-635 Oct 25 j 06:11	10° <del>8</del> 28'46	
direct	-641 May 04 j 11:12	24° <del>8</del> 04'22						
	-641 Aug 03 j 16:41	0° <del>8</del>		conjunction		-635 Nov 10 j 18:43	12° <del>8</del> 23'57	1°44'50
evening set	-641 Aug 17 j 22:55	1° <del>8</del> 38'47		minimum elong		-635 Nov 10 j 18:45	12° <del>8</del> 23'57	1°44'50
				max. Earth dist.		-635 Nov 10 j 10:03	12° <del>8</del> 21'25	11.12578 AU
conjunction	-641 Sep 04 j 03:18	3° <del>8</del> 42'33	2°05'03	morning rise		-635 Nov 27 j 05:58	14° <del>8</del> 18'51	
minimum elong	-641 Sep 04 j 03:16	3° <del>8</del> 42'32	2°05'03			-635 Dec 03 j 07:03	15° <del>8</del>	
max. Earth dist.	-641 Sep 04 j 05:07	3° <del>8</del> 43'06	10.75522 AU	retrograde		-634 Mar 07 j 13:03	21° <del>8</del> 14'21	
morning rise	-641 Sep 21 j 02:58	5° <del>8</del> 44'54		opposition		-634 May 17 j 02:46	17° <del>8</del> 57'05	1°56'11
retrograde	-641 Dec 29 j 08:55	12° <del>8</del> 54'11		min. Earth dist.		-634 May 17 j 10:42	17° <del>8</del> 55'38	9.11957 AU
opposition	-640 Mar 06 j 15:54	9° <del>8</del> 35'43	2°40'37			-634 Jul 05 j 21:03	15° <del>8</del>	
min. Earth dist.	-640 Mar 06 j 14:48	9° <del>8</del> 35'55	8.81484 AU	direct		-634 Jul 27 j 07:59	14° <del>8</del> 38'18	
direct	-640 May 16 j 11:54	6° <del>8</del> 11'34				-634 Aug 17 j 12:18	15° <del>8</del>	
evening set	-640 Aug 29 j 09:50	13° <del>8</del> 37'54		evening set		-634 Nov 05 j 09:43	21° <del>8</del> 36'34	
conjunction	-640 Sep 15 j 09:33	15° <del>8</del> 38'59	2°15'34	conjunction		-634 Nov 21 j 22:14	23° <del>8</del> 32'03	1°24'45
minimum elong	-640 Sep 15 j 09:31	15° <del>8</del> 38'58	2°15'33	minimum elong		-634 Nov 21 j 22:17	23° <del>8</del> 32'03	1°24'44
max. Earth dist.	-640 Sep 15 j 09:00	15° <del>8</del> 38'49	10.86822 AU	max. Earth dist.		-634 Nov 21 j 12:24	23° <del>8</del> 29'09	11.10531 AU
morning rise	-640 Oct 02 j 04:49	17° <del>8</del> 38'45		morning rise		-634 Dec 08 j 10:27	25° <del>8</del> 27'31	
retrograde	-639 Jan 09 j 07:49	24° <del>8</del> 41'59				-633 Jan 22 j 04:48	0° <del>8</del>	
opposition	-639 Mar 19 j 00:16	21° <del>8</del> 24'27	2°49'36	retrograde		-633 Mar 19 j 06:34	2° <del>8</del> 26'07	
min. Earth dist.	-639 Mar 19 j 00:48	21° <del>8</del> 24'21	8.91992 AU			-633 May 17 j 04:44	30° <del>8</del>	
direct	-639 May 29 j 04:10	18° <del>8</del> 01'35		opposition		-633 May 29 j 02:43	29° <del>8</del> 08'05	1°29'33
evening set	-639 Sep 10 j 11:46	25° <del>8</del> 20'34		min. Earth dist.		-633 May 29 j 11:46	29° <del>8</del> 06'25	9.08652 AU
				direct		-633 Aug 07 j 23:24	25° <del>8</del> 49'31	
conjunction	-639 Sep 27 j 07:37	27° <del>8</del> 19'28	2°20'10			-633 Oct 21 j 22:26	0° <del>8</del>	
minimum elong	-639 Sep 27 j 07:37	27° <del>8</del> 19'28	2°20'10	evening set		-633 Nov 16 j 14:03	2° <del>8</del> 47'42	
max. Earth dist.	-639 Sep 27 j 05:20	27° <del>8</del> 18'48	10.96382 AU					
morning rise	-639 Oct 13 j 23:17	29° <del>8</del> 17'11		conjunction		-633 Dec 03 j 03:09	4° <del>8</del> 43'55	1°01'19

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 23

Attention, astronomical year style is used: The year -633 in astronomical counting style is the year 634 BCE in historical counting style.

minimum elong	-633 Dec 03 j 03:11	4°♂43'55	1°01'18	conjunction	-626 Feb 11 j 14:05	16°♂27'17	-1°-40'-12
max. Earth dist.	-633 Dec 02 j 16:09	4°♂40'40	11.06085 AU	minimum elong	-626 Feb 11 j 14:02	16°♂27'16	1°40'14
morning rise	-633 Dec 19 j 17:03	6°♂40'23		max. Earth dist.	-626 Feb 11 j 09:37	16°♂25'53	10.42781 AU
retrograde	-632 Mar 30 j 05:35	13°♂43'43		morning rise	-626 Feb 28 j 20:36	18°♂36'46	
opposition	-632 Jun 09 j 04:54	10°♂24'42	0°59'14	retrograde	-626 Jun 15 j 09:23	26°♂35'16	
min. Earth dist.	-632 Jun 09 j 14:31	10°♂22'55	9.03013 AU	opposition	-626 Aug 24 j 01:16	23°♂07'57	-2°-17'-9
direct	-632 Aug 18 j 17:57	7°♂06'07		min. Earth dist.	-626 Aug 24 j 03:44	23°♂07'28	8.36496 AU
evening set	-632 Nov 26 j 20:51	14°♂05'46		direct	-626 Oct 30 j 08:59	19°♂45'28	
				evening set	-625 Feb 07 j 21:20	27°♂24'45	
conjunction	-632 Dec 13 j 11:15	16°♂03'09	0°35'16	conjunction	-625 Feb 25 j 02:35	29°♂35'27	-1°-59'-26
minimum elong	-632 Dec 13 j 11:17	16°♂03'09	0°35'15	minimum elong	-625 Feb 25 j 02:32	29°♂35'26	1°59'28
max. Earth dist.	-632 Dec 13 j 00:37	16°♂00'00	10.99380 AU	max. Earth dist.	-625 Feb 25 j 00:57	29°♂34'56	10.30299 AU
morning rise	-632 Dec 30 j 03:12	18°♂01'03			-625 Feb 28 j 07:36	0°♂	
retrograde	-631 Apr 11 j 10:21	25°♂10'40		morning rise	-625 Mar 14 j 12:35	1°♂47'44	
opposition	-631 Jun 21 j 10:26	21°♂50'27	0°26'08	retrograde	-625 Jun 29 j 16:03	9°♂56'34	
min. Earth dist.	-631 Jun 21 j 19:19	21°♂48'48	8.95213 AU	opposition	-625 Sep 06 j 19:19	6°♂28'01	-2°-37'-50
direct	-631 Aug 30 j 12:48	18°♂31'43		min. Earth dist.	-625 Sep 06 j 19:17	6°♂28'01	8.24528 AU
evening set	-631 Dec 08 j 08:11	25°♂34'26		direct	-625 Nov 12 j 15:10	3°♂04'23	
conjunction	-631 Dec 25 j 00:15	27°♂33'20	0°07'27	evening set	-624 Feb 21 j 18:17	10°♂53'20	
minimum elong	-631 Dec 25 j 00:15	27°♂33'20	0°07'26	conjunction	-624 Mar 10 j 03:15	13°♂06'46	-2°-12'-39
behind sun begin	-631 Dec 24 j 17:51	27°♂31'27		minimum elong	-624 Mar 10 j 03:14	13°♂06'45	2°12'41
behind sun end	-631 Dec 25 j 06:39	27°♂35'14		max. Earth dist.	-624 Mar 10 j 03:52	13°♂06'58	10.18905 AU
max. Earth dist.	-631 Dec 24 j 14:32	27°♂30'27	10.90619 AU	morning rise	-624 Mar 27 j 17:02	15°♂21'46	
morning rise	-630 Jan 10 j 18:29	29°♂33'00		retrograde	-624 Jul 13 j 05:11	23°♂39'27	
	-630 Jan 14 j 15:10	0°♂		opposition	-624 Sep 19 j 19:22	20°♂09'55	-2°-50'-13
desc. node	-630 Apr 01 j 12:56	6°♂25'57		min. Earth dist.	-624 Sep 19 j 17:24	20°♂10'19	8.13975 AU
retrograde	-630 Apr 23 j 22:32	6°♂50'25		direct	-624 Nov 25 j 06:02	16°♂45'06	
opposition	-630 Jul 03 j 20:25	3°♂28'53	0°-8'-42	evening set	-623 Mar 07 j 02:16	24°♂43'15	
min. Earth dist.	-630 Jul 04 j 04:16	3°♂27'24	8.85518 AU	conjunction	-623 Mar 24 j 15:19	26°♂59'19	-2°-18'-35
direct	-630 Sep 11 j 10:40	0°♂09'45		minimum elong	-623 Mar 24 j 15:19	26°♂59'18	2°18'36
evening set	-630 Dec 20 j 01:52	7°♂17'08		max. Earth dist.	-623 Mar 24 j 18:04	27°♂00'12	10.09259 AU
conjunction	-629 Jan 05 j 19:49	9°♂17'55	0°-21'-18	morning rise	-623 Apr 11 j 08:58	29°♂16'50	
minimum elong	-629 Jan 05 j 19:48	9°♂17'55	0°21'18		-623 Apr 17 j 01:31	0°♀	
max. Earth dist.	-629 Jan 05 j 10:25	9°♂15'05	10.80128 AU	retrograde	-623 Jul 27 j 23:11	7°♀41'05	
morning rise	-629 Jan 22 j 16:49	11°♂19'42		opposition	-623 Oct 04 j 00:37	4°♀10'53	-2°-52'-52
retrograde	-629 May 06 j 18:55	18°♂46'13		min. Earth dist.	-623 Oct 03 j 21:09	4°♀11'36	8.05451 AU
opposition	-629 Jul 16 j 11:59	15°♂23'15	0°-44'-1	direct	-623 Dec 09 j 05:00	0°♀44'52	
min. Earth dist.	-629 Jul 16 j 19:08	15°♂21'54	8.74304 AU	evening set	-622 Mar 21 j 19:43	8°♀51'02	
direct	-629 Sep 23 j 11:46	12°♂03'32		conjunction	-622 Apr 08 j 13:07	11°♀09'28	-2°-16'-21
evening set	-628 Jan 01 j 03:26	19°♂17'06		minimum elong	-622 Apr 08 j 13:09	11°♀09'28	2°16'22
conjunction	-628 Jan 17 j 23:36	21°♂20'03	0°-49'-39	max. Earth dist.	-622 Apr 08 j 18:06	11°♀11'06	10.01927 AU
minimum elong	-628 Jan 17 j 23:34	21°♂20'02	0°49'40	morning rise	-622 Apr 26 j 10:35	13°♀29'10	
max. Earth dist.	-628 Jan 17 j 14:35	21°♂17'17	10.68316 AU	retrograde	-622 Aug 11 j 19:57	21°♀57'03	
morning rise	-628 Feb 03 j 23:43	23°♂24'13		opposition	-622 Oct 18 j 09:22	18°♀26'31	-2°-44'-59
	-628 Apr 13 j 15:41	0°♂		min. Earth dist.	-622 Oct 18 j 04:38	18°♀27'30	7.99431 AU
retrograde	-628 May 18 j 22:20	1°♂00'55		direct	-622 Dec 23 j 11:20	14°♀59'20	
	-628 Jun 23 j 16:59	30°♂		evening set	-621 Apr 05 j 20:58	23°♀11'53	
opposition	-628 Jul 28 j 09:43	27°♂36'28	-1°-18'-21	conjunction	-621 Apr 23 j 18:41	25°♀32'14	-2°-5'-41
min. Earth dist.	-628 Jul 28 j 16:14	27°♂35'13	8.62024 AU	minimum elong	-621 Apr 23 j 18:44	25°♀32'15	2°05'42
direct	-628 Oct 04 j 19:33	24°♂15'58		max. Earth dist.	-621 Apr 24 j 01:30	25°♀34'28	9.97292 AU
	-628 Dec 29 j 22:45	0°♂		morning rise	-621 May 11 j 19:31	27°♀53'33	
evening set	-627 Jan 12 j 14:32	1°♂37'08			-621 May 28 j 15:13	0°♂	
conjunction	-627 Jan 29 j 13:20	3°♂42'30	-1°-16'-26	retrograde	-621 Aug 26 j 16:41	6°♂21'50	
minimum elong	-627 Jan 29 j 13:17	3°♂42'29	1°16'28	opposition	-621 Nov 01 j 19:43	2°♂51'25	-2°-26'-39
max. Earth dist.	-627 Jan 29 j 06:09	3°♂40'16	10.55672 AU	min. Earth dist.	-621 Nov 01 j 13:56	2°♂52'37	7.96212 AU
morning rise	-627 Feb 15 j 16:35	5°♂49'15			-621 Dec 12 j 09:09	30°♂	
retrograde	-627 Jun 01 j 10:37	13°♂36'47		direct	-620 Jan 06 j 23:54	29°♀23'15	
opposition	-627 Aug 10 j 13:58	10°♂10'52	-1°-50'-1		-620 Feb 01 j 11:24	0°♂	
min. Earth dist.	-627 Aug 10 j 18:52	10°♂09'55	8.49215 AU	evening set	-620 Apr 20 j 03:23	7°♂40'10	
direct	-627 Oct 17 j 11:12	6°♂49'25		conjunction	-620 May 08 j 04:52	10°♂01'48	-1°-47'-3
evening set	-626 Jan 25 j 12:14	14°♂19'18		minimum elong	-620 May 08 j 04:56	10°♂01'50	1°47'04
	-626 Jan 30 j 23:40	15°♂					

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 24

Attention, astronomical year style is used: The year -620 in astronomical counting style is the year 621 BCE in historical counting style.

max. Earth dist.	-620 May 08 j 13:23	10° $\text{C}$ 04'37	9.95602 AU	opposition	-614 Jan 23 j 00:44	27° $\text{C}$ 01'02	1°16'36
morning rise	-620 May 26 j 08:11	12° $\text{C}$ 24'02		min. Earth dist.	-614 Jan 22 j 18:22	27° $\text{C}$ 02'19	8.36888 AU
	-620 Jun 16 j 06:20	15° $\text{C}$		direct	-614 Apr 02 j 02:32	23° $\text{C}$ 32'38	
retrograde	-620 Sep 09 j 10:59	20° $\text{C}$ 49'35			-614 Jul 05 j 01:30	0° $\text{Q}$	
opposition	-620 Nov 15 j 06:12	17° $\text{C}$ 19'40	-1°-58'-55	evening set	-614 Jul 17 j 07:10	1° $\text{Q}$ 27'50	
min. Earth dist.	-620 Nov 14 j 23:01	17° $\text{C}$ 21'09	7.96029 AU				
	-620 Dec 15 j 23:40	15° $\text{R}$ $\text{C}$		conjunction	-614 Aug 04 j 00:33	3° $\text{Q}$ 39'30	1°15'56
direct	-619 Jan 20 j 15:58	13° $\text{C}$ 50'48		minimum elong	-614 Aug 04 j 00:30	3° $\text{Q}$ 39'29	1°15'58
	-619 Feb 25 j 00:58	15° $\text{C}$		max. Earth dist.	-614 Aug 04 j 07:22	3° $\text{Q}$ 41'38	10.43370 AU
evening set	-619 May 05 j 11:52	22° $\text{C}$ 09'38		morning rise	-614 Aug 21 j 13:20	5° $\text{Q}$ 49'43	
				retrograde	-614 Nov 29 j 22:33	13° $\text{Q}$ 19'45	
conjunction	-619 May 23 j 16:00	24° $\text{C}$ 31'44	-1°-21'-39	opposition	-613 Feb 05 j 04:57	9° $\text{Q}$ 57'41	1°49'09
minimum elong	-619 May 23 j 16:03	24° $\text{C}$ 31'45	1°21'40	min. Earth dist.	-613 Feb 04 j 23:24	9° $\text{Q}$ 58'47	8.49903 AU
max. Earth dist.	-619 May 24 j 02:18	24° $\text{C}$ 35'07	9.97057 AU	direct	-613 Apr 15 j 21:33	6° $\text{Q}$ 30'12	
morning rise	-619 Jun 10 j 20:30	26° $\text{C}$ 53'58		evening set	-613 Jul 30 j 20:21	14° $\text{Q}$ 16'54	
	-619 Jul 06 j 03:42	0° $\text{II}$			-613 Aug 05 j 18:39	15° $\text{Q}$	
retrograde	-619 Sep 24 j 00:49	5° $\text{II}$ 13'50					
opposition	-619 Nov 29 j 14:51	1° $\text{II}$ 44'46	-1°-23'-45	conjunction	-613 Aug 17 j 08:28	16° $\text{Q}$ 25'14	1°40'04
min. Earth dist.	-619 Nov 29 j 06:28	1° $\text{II}$ 46'30	7.99019 AU	minimum elong	-613 Aug 17 j 08:25	16° $\text{Q}$ 25'13	1°40'05
	-619 Dec 21 j 16:05	30° $\text{R}$ $\text{C}$		max. Earth dist.	-613 Aug 17 j 13:51	16° $\text{Q}$ 26'54	10.56451 AU
direct	-618 Feb 04 j 09:19	28° $\text{C}$ 15'26		morning rise	-613 Sep 03 j 15:38	18° $\text{Q}$ 32'03	
	-618 Mar 20 j 12:50	0° $\text{II}$		retrograde	-613 Dec 12 j 11:20	25° $\text{Q}$ 52'42	
evening set	-618 May 20 j 19:28	6° $\text{II}$ 33'36		opposition	-612 Feb 18 j 02:32	22° $\text{Q}$ 32'00	2°15'25
				min. Earth dist.	-612 Feb 17 j 22:04	22° $\text{Q}$ 32'52	8.62972 AU
conjunction	-618 Jun 08 j 00:44	8° $\text{II}$ 55'13	0°-51'-19	direct	-612 Apr 28 j 07:36	19° $\text{Q}$ 05'36	
minimum elong	-618 Jun 08 j 00:46	8° $\text{II}$ 55'14	0°51'20	evening set	-612 Aug 11 j 22:12	26° $\text{Q}$ 43'39	
max. Earth dist.	-618 Jun 08 j 12:04	8° $\text{II}$ 58'55	10.01666 AU				
morning rise	-618 Jun 26 j 04:53	11° $\text{II}$ 16'29		conjunction	-612 Aug 29 j 05:03	28° $\text{Q}$ 48'48	1°58'51
retrograde	-618 Oct 08 j 08:19	19° $\text{II}$ 28'09		minimum elong	-612 Aug 29 j 05:00	28° $\text{Q}$ 48'48	1°58'52
opposition	-618 Dec 13 j 19:47	16° $\text{II}$ 00'14	0°-43'-48	max. Earth dist.	-612 Aug 29 j 09:04	28° $\text{Q}$ 50'02	10.69267 AU
min. Earth dist.	-618 Dec 13 j 11:02	16° $\text{II}$ 02'03	8.05063 AU		-612 Sep 07 j 23:47	0° $\text{np}$	
direct	-617 Feb 19 j 00:47	12° $\text{II}$ 30'42		morning rise	-612 Sep 15 j 06:47	0° $\text{np}$ 52'27	
evening set	-617 Jun 04 j 22:59	20° $\text{II}$ 45'47		retrograde	-612 Dec 23 j 16:15	8° $\text{np}$ 04'53	
				opposition	-611 Mar 01 j 18:02	4° $\text{np}$ 45'24	2°34'42
conjunction	-617 Jun 23 j 03:34	23° $\text{II}$ 05'56	0°-18'-15	min. Earth dist.	-611 Mar 01 j 15:31	4° $\text{np}$ 45'53	8.75487 AU
minimum elong	-617 Jun 23 j 03:34	23° $\text{II}$ 05'57	0°18'16	direct	-611 May 11 j 09:59	1° $\text{np}$ 20'13	
max. Earth dist.	-617 Jun 23 j 14:56	23° $\text{II}$ 09'36	10.09151 AU	evening set	-611 Aug 24 j 13:14	8° $\text{np}$ 49'53	
morning rise	-617 Jul 11 j 05:43	25° $\text{II}$ 25'19					
	-617 Aug 19 j 21:53	0° $\text{C}$		conjunction	-611 Sep 10 j 15:05	10° $\text{np}$ 52'08	2°11'52
retrograde	-617 Oct 22 j 08:47	3° $\text{C}$ 27'07		minimum elong	-611 Sep 10 j 15:03	10° $\text{np}$ 52'07	2°11'52
opposition	-617 Dec 27 j 19:48	0° $\text{C}$ 00'35	0°-1'-58	max. Earth dist.	-611 Sep 10 j 16:50	10° $\text{np}$ 52'40	10.81246 AU
min. Earth dist.	-617 Dec 27 j 11:30	0° $\text{C}$ 02'17	8.13778 AU	morning rise	-611 Sep 27 j 12:07	12° $\text{np}$ 53'00	
	-617 Dec 27 j 22:39	30° $\text{R}$ $\text{II}$		retrograde	-610 Jan 04 j 15:43	19° $\text{np}$ 58'32	
asc. node	-616 Jan 14 j 19:41	28° $\text{II}$ 34'50		opposition	-610 Mar 14 j 04:06	16° $\text{np}$ 40'08	2°46'45
direct	-616 Mar 04 j 14:04	26° $\text{II}$ 31'08		min. Earth dist.	-610 Mar 14 j 03:55	16° $\text{np}$ 40'10	8.86903 AU
	-616 May 08 j 16:38	0° $\text{C}$		direct	-610 May 24 j 04:39	13° $\text{np}$ 16'12	
evening set	-616 Jun 18 j 19:24	4° $\text{C}$ 41'01		evening set	-610 Sep 05 j 18:39	20° $\text{np}$ 38'04	
conjunction	-616 Jul 06 j 21:29	6° $\text{C}$ 58'52	0°15'20	conjunction	-610 Sep 22 j 16:02	22° $\text{np}$ 37'51	2°18'58
minimum elong	-616 Jul 06 j 21:28	6° $\text{C}$ 58'52	0°15'21	minimum elong	-610 Sep 22 j 16:01	22° $\text{np}$ 37'51	2°18'57
behind sun begin	-616 Jul 06 j 19:41	6° $\text{C}$ 58'18		max. Earth dist.	-610 Sep 22 j 14:50	22° $\text{np}$ 37'30	10.91896 AU
behind sun end	-616 Jul 06 j 23:16	6° $\text{C}$ 59'26		morning rise	-610 Oct 09 j 09:14	24° $\text{np}$ 36'23	
max. Earth dist.	-616 Jul 07 j 08:00	7° $\text{C}$ 02'13	10.19022 AU		-610 Dec 03 j 08:55	0° $\text{Q}$	
morning rise	-616 Jul 24 j 20:08	9° $\text{C}$ 15'36		retrograde	-609 Jan 16 j 08:45	1° $\text{Q}$ 36'29	
retrograde	-616 Nov 03 j 22:52	17° $\text{C}$ 06'43			-609 Mar 02 j 20:12	30° $\text{R}$ $\text{np}$	
opposition	-615 Jan 09 j 13:42	13° $\text{C}$ 41'41	0°38'57	opposition	-609 Mar 26 j 09:33	28° $\text{np}$ 18'56	2°51'36
min. Earth dist.	-615 Jan 09 j 06:24	13° $\text{C}$ 43'09	8.24608 AU	min. Earth dist.	-609 Mar 26 j 11:05	28° $\text{np}$ 18'39	8.96761 AU
direct	-615 Mar 18 j 23:23	10° $\text{C}$ 12'37		direct	-609 Jun 05 j 16:36	24° $\text{np}$ 56'17	
evening set	-615 Jul 03 j 06:36	18° $\text{C}$ 15'42			-609 Aug 28 j 23:59	0° $\text{Q}$	
				evening set	-609 Sep 17 j 15:30	2° $\text{Q}$ 11'10	
conjunction	-615 Jul 21 j 04:48	20° $\text{C}$ 30'38	0°47'16				
minimum elong	-615 Jul 21 j 04:46	20° $\text{C}$ 30'37	0°47'17	conjunction	-609 Oct 04 j 09:23	4° $\text{Q}$ 08'57	2°20'16
max. Earth dist.	-615 Jul 21 j 13:29	20° $\text{C}$ 33'22	10.30659 AU	minimum elong	-609 Oct 04 j 09:23	4° $\text{Q}$ 08'57	2°20'15
morning rise	-615 Aug 07 j 22:52	22° $\text{C}$ 44'14		max. Earth dist.	-609 Oct 04 j 06:11	4° $\text{Q}$ 08'01	11.00814 AU
	-615 Oct 27 j 00:19	0° $\text{Q}$		morning rise	-609 Oct 20 j 23:38	6° $\text{Q}$ 05'42	
retrograde	-615 Nov 17 j 02:45	0° $\text{Q}$ 24'33		retrograde	-608 Jan 28 j 00:39	13° $\text{Q}$ 01'55	
	-615 Dec 08 j 08:59	30° $\text{R}$ $\text{C}$		opposition	-608 Apr 06 j 11:31	9° $\text{Q}$ 44'58	2°49'31

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 25

Attention, astronomical year style is used: The year -608 in astronomical counting style is the year 609 BCE in historical counting style.

min. Earth dist.	-608 Apr 06 j 13:57	9° <del>44</del> '30	9.04692 AU	min. Earth dist.	-602 Jun 16 j 17:49	16° <del>27</del> '57.59	9.01955 AU
direct	-608 Jun 16 j 23:36	6° <del>42</del> '33		direct	-602 Aug 25 j 15:17	13° <del>27</del> '41.43	
evening set	-608 Sep 28 j 05:15	13° <del>43</del> '22		evening set	-602 Dec 03 j 15:01	20° <del>27</del> '41.44	
conjunction	-608 Oct 14 j 20:36	15° <del>42</del> '28.42	2°16'00	conjunction	-602 Dec 20 j 05:59	22° <del>27</del> '39.33	0°19'54
minimum elong	-608 Oct 14 j 20:37	15° <del>42</del> '28.43	2°15'59	minimum elong	-602 Dec 20 j 05:59	22° <del>27</del> '39.33	0°19'54
max. Earth dist.	-608 Oct 14 j 16:36	15° <del>42</del> '27.32	11.07668 AU	max. Earth dist.	-602 Dec 19 j 18:58	22° <del>27</del> '36.17	10.97825 AU
morning rise	-608 Oct 31 j 08:47	17° <del>42</del> '24.12		morning rise	-601 Jan 05 j 23:02	24° <del>27</del> '38.01	
retrograde	-607 Feb 07 j 15:24	24° <del>41</del> '18.02			-601 Mar 01 j 05:41	0° <del>28</del>	
opposition	-607 Apr 18 j 11:00	21° <del>40</del> '01.26	2°40'55	retrograde	-601 Apr 18 j 16:39	1° <del>28</del> '50.31	
min. Earth dist.	-607 Apr 18 j 14:58	21° <del>40</del> '00.42	9.10410 AU		-601 Jun 07 j 19:42	30° <del>28</del> ' <del>27</del>	
direct	-607 Jun 28 j 23:15	17° <del>41</del> '11.10		opposition	-601 Jun 28 j 16:20	28° <del>27</del> '30.22	0°06'54
evening set	-607 Oct 09 j 13:55	24° <del>41</del> '45.03		min. Earth dist.	-601 Jun 29 j 01:47	28° <del>27</del> '28.36	8.93105 AU
conjunction	-607 Oct 26 j 03:29	26° <del>40</del> '28	2°06'32	direct	-601 Sep 06 j 11:47	25° <del>27</del> '12.08	
minimum elong	-607 Oct 26 j 03:30	26° <del>40</del> '29	2°06'32	desc. node	-601 Sep 11 j 07:42	25° <del>27</del> '13.20	
max. Earth dist.	-607 Oct 25 j 21:42	26° <del>40</del> '38.47	11.12216 AU	evening set	-601 Nov 25 j 02:32	0° <del>28</del>	
morning rise	-607 Nov 11 j 14:36	28° <del>41</del> '35.16			-601 Dec 15 j 04:56	2° <del>28</del> '16.05	
	-607 Nov 24 j 05:24	0° <del>28</del>		conjunction	-601 Dec 31 j 21:45	4° <del>28</del> '15.38	0°-8'-30
retrograde	-606 Feb 19 j 04:08	5° <del>28</del> '14		minimum elong	-601 Dec 31 j 21:45	4° <del>28</del> '15.38	0°08'30
opposition	-606 Apr 30 j 09:02	2° <del>28</del> '11.45	2°26'20	behind sun begin	-601 Dec 31 j 15:36	4° <del>28</del> '13.49	
min. Earth dist.	-606 Apr 30 j 15:02	2° <del>28</del> '10.39	9.13724 AU	behind sun end	-600 Jan 01 j 03:54	4° <del>28</del> '17.28	
	-606 Jun 02 j 02:29	30° <del>28</del> ' <del>27</del>		max. Earth dist.	-601 Dec 31 j 11:02	4° <del>28</del> '12.26	10.87979 AU
direct	-606 Jul 10 j 19:29	28° <del>41</del> '52.24		morning rise	-600 Jan 17 j 17:24	6° <del>28</del> '16.05	
	-606 Aug 17 j 17:38	0° <del>28</del>		retrograde	-600 Apr 30 j 08:27	13° <del>28</del> '37.08	
evening set	-606 Oct 20 j 19:05	5° <del>28</del> '52.41		opposition	-600 Jul 10 j 04:25	10° <del>28</del> '15.33	0°-28'-13
conjunction	-606 Nov 06 j 07:32	7° <del>28</del> '47.40	1°52'20	min. Earth dist.	-600 Jul 10 j 13:18	10° <del>28</del> '13.53	8.82313 AU
minimum elong	-606 Nov 06 j 07:35	7° <del>28</del> '47.40	1°52'20	direct	-600 Sep 17 j 11:27	6° <del>28</del> '56.46	
max. Earth dist.	-606 Nov 05 j 23:34	7° <del>28</del> '45.20	11.14315 AU	evening set	-600 Dec 26 j 02:02	14° <del>28</del> '06.19	
morning rise	-606 Nov 22 j 18:38	9° <del>28</del> '42.16					
	-605 Jan 16 j 21:22	15° <del>28</del>		conjunction	-599 Jan 11 j 21:08	16° <del>28</del> '07.56	0°-37'-2
retrograde	-605 Mar 02 j 18:19	16° <del>28</del> '35.59		minimum elong	-599 Jan 11 j 21:06	16° <del>28</del> '07.56	0°37'03
	-605 Apr 18 j 05:05	15° <del>28</del> ' <del>27</del>		max. Earth dist.	-599 Jan 11 j 11:31	16° <del>28</del> '05.01	10.76381 AU
opposition	-605 May 12 j 06:55	13° <del>28</del> '19.19	2°06'21	morning rise	-599 Jan 28 j 19:32	18° <del>28</del> '10.39	
min. Earth dist.	-605 May 12 j 14:21	13° <del>28</del> '17.58	9.14535 AU	retrograde	-599 May 13 j 07:45	25° <del>28</del> '41.33	
direct	-605 Jul 22 j 14:00	10° <del>28</del> '00.43		opposition	-599 Jul 22 j 22:26	22° <del>28</del> '18.23	-1°-3'-3
	-605 Oct 14 j 00:25	15° <del>28</del>		min. Earth dist.	-599 Jul 23 j 05:53	22° <del>28</del> '16.58	8.70037 AU
evening set	-605 Oct 31 j 22:12	16° <del>28</del> '58.40		direct	-599 Sep 29 j 15:51	18° <del>28</del> '58.48	
conjunction	-605 Nov 17 j 10:28	18° <del>28</del> '53.42	1°33'56	evening set	-598 Jan 07 j 07:56	26° <del>28</del> '15.25	
minimum elong	-605 Nov 17 j 10:31	18° <del>28</del> '53.43	1°33'55				
max. Earth dist.	-605 Nov 17 j 01:42	18° <del>28</del> '51.08	11.13897 AU	conjunction	-598 Jan 24 j 05:25	28° <del>28</del> '19.23	-1°-4'-37
morning rise	-605 Dec 03 j 22:12	20° <del>28</del> '48.38		minimum elong	-598 Jan 24 j 05:23	28° <del>28</del> '19.22	1°04'38
retrograde	-604 Mar 13 j 10:34	27° <del>28</del> '44.42		max. Earth dist.	-598 Jan 23 j 20:43	28° <del>28</del> '16.43	10.63561 AU
opposition	-604 May 23 j 05:29	24° <del>28</del> '27.32	1°41'36		-598 Feb 06 j 21:27	0° <del>28</del>	
min. Earth dist.	-604 May 23 j 13:07	24° <del>28</del> '26.08	9.12808 AU	morning rise	-598 Feb 10 j 06:53	0° <del>28</del> '24.39	
direct	-604 Aug 02 j 06:48	21° <del>28</del> '09.26		retrograde	-598 May 26 j 16:32	8° <del>28</del> '06.16	
evening set	-604 Nov 11 j 01:25	28° <del>28</del> '06.32		opposition	-598 Aug 04 j 23:05	4° <del>28</del> '41.27	-1°-36'-3
conjunction	-604 Nov 27 j 14:13	0° <del>27</del> '02.05	1°11'55	min. Earth dist.	-598 Aug 05 j 05:09	4° <del>28</del> '40.17	8.56860 AU
minimum elong	-604 Nov 27 j 14:15	0° <del>27</del> '02.06	1°11'54	direct	-598 Oct 12 j 02:35	1° <del>28</del> '20.49	
max. Earth dist.	-604 Nov 27 j 05:22	29° <del>27</del> '59.30	11.10952 AU	evening set	-597 Jan 20 j 00:03	8° <del>28</del> '45.46	
	-604 Nov 27 j 07:05	0° <del>27</del> ' <del>27</del>					
morning rise	-604 Dec 14 j 03:06	1° <del>27</del> '57.46		conjunction	-597 Feb 06 j 00:14	10° <del>28</del> '52.18	-1°-29'-52
retrograde	-603 Mar 25 j 08:52	8° <del>27</del> '57.44		minimum elong	-597 Feb 06 j 00:11	10° <del>28</del> '52.17	1°29'54
opposition	-603 Jun 04 j 05:41	5° <del>27</del> '39.50	1°12'52	max. Earth dist.	-597 Feb 05 j 16:32	10° <del>28</del> '49.53	10.50141 AU
min. Earth dist.	-603 Jun 04 j 13:37	5° <del>27</del> '38.22	9.08579 AU	morning rise	-597 Feb 23 j 05:05	13° <del>28</del> '00.18	
direct	-603 Aug 13 j 23:31	2° <del>27</del> '21.58			-597 Mar 12 j 00:25	15° <del>28</del>	
evening set	-603 Nov 22 j 06:29	9° <del>27</del> '19.44		retrograde	-597 Jun 09 j 10:38	20° <del>28</del> '53.01	
conjunction	-603 Dec 08 j 20:10	11° <del>27</del> '16.14	0°46'59	opposition	-597 Aug 18 j 06:36	17° <del>28</del> '26.33	-2°-5'-26
minimum elong	-603 Dec 08 j 20:12	11° <del>27</del> '16.14	0°46'58	min. Earth dist.	-597 Aug 18 j 11:30	17° <del>28</del> '25.35	8.43424 AU
max. Earth dist.	-603 Dec 08 j 10:22	11° <del>27</del> '13.20	11.05551 AU		-597 Sep 22 j 04:33	15° <del>28</del> ' <del>27</del>	
morning rise	-603 Dec 25 j 10:53	13° <del>27</del> '13.06		direct	-597 Oct 24 j 19:42	14° <del>28</del> '04.40	
retrograde	-602 Apr 06 j 09:41	20° <del>27</del> '18.31			-597 Nov 25 j 21:51	15° <del>28</del>	
opposition	-602 Jun 16 j 09:01	16° <del>27</del> '59.37	0°40'59	evening set	-596 Feb 02 j 03:14	21° <del>28</del> '38.55	
				conjunction	-596 Feb 19 j 06:37	23° <del>28</del> '48.11	-1°-51'-19
				minimum elong	-596 Feb 19 j 06:34	23° <del>28</del> '48.10	1°51'21
				max. Earth dist.	-596 Feb 19 j 00:50	23° <del>28</del> '46.21	10.36776 AU

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Attention, astronomical year style is used: The year -596 in astronomical counting style is the year 597 BCE in historical counting style.

morning rise	-596 Mar 07 j 15:02	25° $\approx$ 59'01		max. Earth dist.	-590 May 17 j 08:14	18° $\mathfrak{C}$ 10'21	9.94262 AU
	-596 Apr 11 j 14:33	0° $\mathfrak{H}$		morning rise	-590 Jun 04 j 02:55	20° $\mathfrak{C}$ 29'46	
retrograde	-596 Jun 22 j 11:25	4° $\mathfrak{H}$ 02'35		retrograde	-590 Sep 17 j 18:27	28° $\mathfrak{C}$ 53'14	
opposition	-596 Aug 30 j 21:00	0° $\mathfrak{H}$ 34'35	-2°-29'-17	opposition	-590 Nov 23 j 10:39	25° $\mathfrak{C}$ 23'04	-1°-40'-51
min. Earth dist.	-596 Aug 31 j 00:19	0° $\mathfrak{H}$ 33'56	8.30395 AU	min. Earth dist.	-590 Nov 23 j 02:59	25° $\mathfrak{C}$ 24'40	7.95614 AU
	-596 Sep 07 j 03:50	30° $\mathfrak{R}$ $\approx$		direct	-589 Jan 29 j 00:19	21° $\mathfrak{C}$ 53'16	
direct	-596 Nov 05 j 22:43	27° $\approx$ 11'21			-589 May 12 j 12:57	0° $\mathfrak{II}$	
	-595 Jan 01 j 18:56	0° $\mathfrak{H}$		evening set	-589 May 14 j 04:18	0° $\mathfrak{II}$ 12'35	
evening set	-595 Feb 14 j 18:00	4° $\mathfrak{H}$ 55'25					
				conjunction	-589 Jun 01 j 09:11	2° $\mathfrak{II}$ 34'44	-1°-5'-50
conjunction	-595 Mar 04 j 01:03	7° $\mathfrak{H}$ 07'29	-2°-7'-27	minimum elong	-589 Jun 01 j 09:14	2° $\mathfrak{II}$ 34'45	1°05'51
minimum elong	-595 Mar 04 j 01:01	7° $\mathfrak{H}$ 07'28	2°07'29	max. Earth dist.	-589 Jun 01 j 19:44	2° $\mathfrak{II}$ 38'11	9.97641 AU
max. Earth dist.	-595 Mar 03 j 22:15	7° $\mathfrak{H}$ 06'36	10.24150 AU	morning rise	-589 Jun 19 j 13:57	4° $\mathfrak{II}$ 56'46	
morning rise	-595 Mar 21 j 13:03	9° $\mathfrak{H}$ 21'09		retrograde	-589 Oct 02 j 04:58	13° $\mathfrak{II}$ 12'58	
retrograde	-595 Jul 06 j 19:49	17° $\mathfrak{H}$ 34'36		opposition	-589 Dec 07 j 17:42	9° $\mathfrak{II}$ 43'56	-1°-2'-42
opposition	-595 Sep 13 j 17:51	14° $\mathfrak{H}$ 05'16	-2°-45'-43	min. Earth dist.	-589 Dec 07 j 09:15	9° $\mathfrak{II}$ 45'41	8.00528 AU
min. Earth dist.	-595 Sep 13 j 18:55	14° $\mathfrak{H}$ 05'03	8.18458 AU	direct	-588 Feb 12 j 17:42	6° $\mathfrak{II}$ 13'55	
direct	-595 Nov 19 j 10:18	10° $\mathfrak{H}$ 40'39		evening set	-588 May 28 j 10:14	14° $\mathfrak{II}$ 31'10	
evening set	-594 Feb 28 j 20:14	18° $\mathfrak{H}$ 34'26					
				conjunction	-588 Jun 15 j 15:18	16° $\mathfrak{II}$ 52'16	0°-33'-42
conjunction	-594 Mar 18 j 07:23	20° $\mathfrak{H}$ 49'17	-2°-16'-53	minimum elong	-588 Jun 15 j 15:20	16° $\mathfrak{II}$ 52'16	0°33'43
minimum elong	-594 Mar 18 j 07:22	20° $\mathfrak{H}$ 49'17	2°16'54	max. Earth dist.	-588 Jun 16 j 02:31	16° $\mathfrak{II}$ 55'54	10.04123 AU
max. Earth dist.	-594 Mar 18 j 08:03	20° $\mathfrak{H}$ 49'30	10.12968 AU	morning rise	-588 Jul 03 j 18:50	19° $\mathfrak{II}$ 12'48	
morning rise	-594 Apr 04 j 23:09	23° $\mathfrak{H}$ 05'41		retrograde	-588 Oct 15 j 08:37	27° $\mathfrak{II}$ 19'45	
	-594 Jun 10 j 12:04	0° $\mathfrak{Y}$		opposition	-588 Dec 20 j 20:24	23° $\mathfrak{II}$ 52'09	0°-21'-18
retrograde	-594 Jul 21 j 11:24	1° $\mathfrak{Y}$ 27'12		min. Earth dist.	-588 Dec 20 j 11:18	23° $\mathfrak{II}$ 54'02	8.08366 AU
	-594 Aug 31 j 22:00	30° $\mathfrak{R}$ $\mathfrak{H}$		direct	-587 Feb 26 j 09:18	20° $\mathfrak{II}$ 22'17	
opposition	-594 Sep 27 j 20:29	27° $\mathfrak{H}$ 56'49	-2°-53'-2	evening set	-587 Jun 12 j 10:15	28° $\mathfrak{II}$ 35'12	
min. Earth dist.	-594 Sep 27 j 18:47	27° $\mathfrak{H}$ 57'10	8.08295 AU		-587 Jun 23 j 12:47	0° $\mathfrak{E}$	
direct	-594 Dec 03 j 05:03	24° $\mathfrak{H}$ 30'52					
	-593 Feb 22 j 14:51	0° $\mathfrak{Y}$		conjunction	-587 Jun 30 j 13:46	0° $\mathfrak{E}$ 54'20	0°00'-3
evening set	-593 Mar 15 j 09:04	2° $\mathfrak{Y}$ 33'34		minimum elong	-587 Jun 30 j 13:46	0° $\mathfrak{E}$ 54'20	0°00'04
				behind sun begin	-587 Jun 30 j 07:01	0° $\mathfrak{E}$ 52'12	
conjunction	-593 Apr 02 j 00:37	4° $\mathfrak{Y}$ 51'03	-2°-18'-30	behind sun end	-587 Jun 30 j 20:31	0° $\mathfrak{E}$ 56'29	
minimum elong	-593 Apr 02 j 00:38	4° $\mathfrak{Y}$ 51'03	2°18'31	max. Earth dist.	-587 Jul 01 j 01:16	0° $\mathfrak{E}$ 58'01	10.13281 AU
max. Earth dist.	-593 Apr 02 j 04:17	4° $\mathfrak{Y}$ 52'15	10.03898 AU	asc. node	-587 Jul 01 j 07:28	1° $\mathfrak{E}$ 00'01	
morning rise	-593 Apr 19 j 20:15	7° $\mathfrak{Y}$ 09'54		morning rise	-587 Jul 18 j 14:26	3° $\mathfrak{E}$ 12'32	
retrograde	-593 Aug 05 j 07:55	15° $\mathfrak{Y}$ 36'51		retrograde	-587 Oct 29 j 03:30	11° $\mathfrak{E}$ 09'06	
opposition	-593 Oct 12 j 03:38	12° $\mathfrak{Y}$ 05'50	-2°-50'-6	opposition	-586 Jan 03 j 17:26	7° $\mathfrak{E}$ 43'08	0°20'24
min. Earth dist.	-593 Oct 11 j 23:36	12° $\mathfrak{Y}$ 06'40	8.00514 AU	min. Earth dist.	-586 Jan 03 j 08:09	7° $\mathfrak{E}$ 45'01	8.18624 AU
direct	-593 Dec 17 j 06:45	8° $\mathfrak{Y}$ 38'36		direct	-586 Mar 12 j 20:46	4° $\mathfrak{E}$ 13'45	
evening set	-592 Mar 29 j 07:02	16° $\mathfrak{Y}$ 48'52		evening set	-586 Jun 27 j 02:21	12° $\mathfrak{E}$ 20'32	
conjunction	-592 Apr 16 j 02:56	19° $\mathfrak{Y}$ 08'34	-2°-11'-44	conjunction	-586 Jul 15 j 02:43	14° $\mathfrak{E}$ 37'00	0°32'55
minimum elong	-592 Apr 16 j 02:58	19° $\mathfrak{Y}$ 08'35	2°11'44	minimum elong	-586 Jul 15 j 02:41	14° $\mathfrak{E}$ 36'59	0°32'56
max. Earth dist.	-592 Apr 16 j 09:07	19° $\mathfrak{Y}$ 10'36	9.97502 AU	max. Earth dist.	-586 Jul 15 j 13:52	14° $\mathfrak{E}$ 40'32	10.24526 AU
morning rise	-592 May 04 j 02:10	21° $\mathfrak{Y}$ 29'24		morning rise	-586 Aug 01 j 23:06	16° $\mathfrak{E}$ 52'13	
retrograde	-592 Aug 19 j 06:02	29° $\mathfrak{Y}$ 58'34		retrograde	-586 Nov 11 j 13:32	24° $\mathfrak{E}$ 37'57	
opposition	-592 Oct 25 j 13:34	26° $\mathfrak{Y}$ 27'22	-2°-36'-32	opposition	-585 Jan 17 j 07:57	21° $\mathfrak{E}$ 13'43	0°59'52
min. Earth dist.	-592 Oct 25 j 07:49	26° $\mathfrak{Y}$ 28'34	7.95614 AU	min. Earth dist.	-585 Jan 16 j 23:30	21° $\mathfrak{E}$ 15'25	8.30664 AU
direct	-592 Dec 30 j 16:17	22° $\mathfrak{Y}$ 59'01		direct	-585 Mar 27 j 01:50	17° $\mathfrak{E}$ 45'05	
	-591 Apr 03 j 16:12	0° $\mathfrak{C}$		evening set	-585 Jul 11 j 08:36	25° $\mathfrak{E}$ 44'27	
evening set	-591 Apr 13 j 11:32	1° $\mathfrak{C}$ 14'49					
				conjunction	-585 Jul 29 j 04:30	27° $\mathfrak{E}$ 57'45	1°03'18
conjunction	-591 May 01 j 11:25	3° $\mathfrak{C}$ 36'10	-1°-56'-40	minimum elong	-585 Jul 29 j 04:27	27° $\mathfrak{E}$ 57'45	1°03'19
minimum elong	-591 May 01 j 11:28	3° $\mathfrak{C}$ 36'12	1°56'40	max. Earth dist.	-585 Jul 29 j 14:27	28° $\mathfrak{E}$ 00'52	10.37180 AU
max. Earth dist.	-591 May 01 j 19:36	3° $\mathfrak{C}$ 38'52	9.94213 AU		-585 Aug 14 j 12:25	0° $\mathfrak{Q}$	
morning rise	-591 May 19 j 13:41	5° $\mathfrak{C}$ 58'18		morning rise	-585 Aug 15 j 19:42	0° $\mathfrak{Q}$ 09'37	
retrograde	-591 Sep 03 j 02:09	14° $\mathfrak{C}$ 26'15		retrograde	-585 Nov 24 j 15:21	7° $\mathfrak{Q}$ 44'46	
opposition	-591 Nov 09 j 00:37	10° $\mathfrak{C}$ 55'21	-2°-12'-55	opposition	-584 Jan 30 j 15:59	4° $\mathfrak{Q}$ 22'14	1°34'59
min. Earth dist.	-591 Nov 08 j 17:41	10° $\mathfrak{C}$ 56'48	7.93940 AU	min. Earth dist.	-584 Jan 30 j 09:12	4° $\mathfrak{Q}$ 23'35	8.43787 AU
direct	-590 Jan 14 j 06:57	7° $\mathfrak{C}$ 26'08		direct	-584 Apr 08 j 23:30	0° $\mathfrak{Q}$ 54'36	
	-590 Apr 22 j 22:48	15° $\mathfrak{C}$		evening set	-584 Jul 24 j 03:41	8° $\mathfrak{Q}$ 45'39	
evening set	-590 Apr 28 j 19:34	15° $\mathfrak{C}$ 44'59					
				conjunction	-584 Aug 10 j 18:18	10° $\mathfrak{Q}$ 55'35	1°29'40
conjunction	-590 May 16 j 22:38	18° $\mathfrak{C}$ 07'12	-1°-34'-11	minimum elong	-584 Aug 10 j 18:15	10° $\mathfrak{Q}$ 55'34	1°29'40
minimum elong	-590 May 16 j 22:41	18° $\mathfrak{C}$ 07'13	1°34'11	max. Earth dist.	-584 Aug 11 j 01:54	10° $\mathfrak{Q}$ 57'57	10.50536 AU

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Attention, astronomical year style is used: The year -584 in astronomical counting style is the year 585 BCE in historical counting style.

morning rise	-584 Aug 28 j 03:59	13° $\Omega$ 04'00		morning rise	-578 Nov 07 j 01:55	23° $\Omega$ 55'59	
	-584 Sep 13 j 14:22	15° $\Omega$			-577 Jan 13 j 17:57	0° $\mathbb{M}$	
retrograde	-584 Dec 06 j 07:40	20° $\Omega$ 29'14		retrograde	-577 Feb 14 j 11:24	0° $\mathbb{M}$ 49'36	
opposition	-583 Feb 11 j 17:13	17° $\Omega$ 08'18	2°04'15		-577 Mar 18 j 21:57	30° $\mathbb{R}$ $\Omega$	
min. Earth dist.	-583 Feb 11 j 12:14	17° $\Omega$ 09'17	8.57279 AU	opposition	-577 Apr 25 j 12:36	27° $\Omega$ 33'12	2°33'22
	-583 Mar 13 j 06:49	15° $\mathbb{R}$ $\Omega$		min. Earth dist.	-577 Apr 25 j 18:40	27° $\Omega$ 32'05	9.12059 AU
direct	-583 Apr 22 j 14:16	13° $\Omega$ 41'49		direct	-577 Jul 06 j 00:34	24° $\Omega$ 13'29	
	-583 Jun 01 j 13:58	15° $\Omega$			-577 Oct 05 j 00:59	0° $\mathbb{M}$	
evening set	-583 Aug 06 j 11:26	21° $\Omega$ 24'11		evening set	-577 Oct 16 j 06:56	1° $\mathbb{M}$ 15'43	
conjunction	-583 Aug 23 j 20:35	23° $\Omega$ 30'48	1°50'58	conjunction	-577 Nov 01 j 19:58	3° $\mathbb{M}$ 10'57	1°59'03
minimum elong	-583 Aug 23 j 20:32	23° $\Omega$ 30'47	1°50'58	minimum elong	-577 Nov 01 j 20:00	3° $\mathbb{M}$ 10'57	1°59'04
max. Earth dist.	-583 Aug 24 j 01:22	23° $\Omega$ 32'15	10.63895 AU	max. Earth dist.	-577 Nov 01 j 12:15	3° $\mathbb{M}$ 08'41	11.12968 AU
morning rise	-583 Sep 10 j 00:53	25° $\Omega$ 35'54		morning rise	-577 Nov 18 j 06:59	5° $\mathbb{M}$ 05'41	
	-583 Oct 20 j 20:57	0° $\mathbb{M}$		retrograde	-576 Feb 26 j 03:00	11° $\mathbb{M}$ 59'21	
retrograde	-583 Dec 18 j 14:45	2° $\mathbb{M}$ 52'13		opposition	-576 May 06 j 10:49	8° $\mathbb{M}$ 42'42	2°15'42
	-582 Feb 18 j 13:47	30° $\mathbb{R}$ $\Omega$		min. Earth dist.	-576 May 06 j 17:47	8° $\mathbb{M}$ 41'25	9.13540 AU
opposition	-582 Feb 24 j 11:47	29° $\Omega$ 32'42	2°26'45	direct	-576 Jul 16 j 20:27	5° $\mathbb{M}$ 23'37	
min. Earth dist.	-582 Feb 24 j 08:23	29° $\Omega$ 33'21	8.70434 AU	evening set	-576 Oct 26 j 11:04	12° $\mathbb{M}$ 22'54	
direct	-582 May 05 j 22:39	26° $\Omega$ 07'26					
	-582 Jul 16 j 17:29	0° $\mathbb{M}$		conjunction	-576 Nov 11 j 23:34	14° $\mathbb{M}$ 18'01	1°42'26
evening set	-582 Aug 19 j 08:02	3° $\mathbb{M}$ 41'11		minimum elong	-576 Nov 11 j 23:37	14° $\mathbb{M}$ 18'01	1°42'26
				max. Earth dist.	-576 Nov 11 j 14:43	14° $\mathbb{M}$ 15'25	11.13222 AU
conjunction	-582 Sep 05 j 12:01	5° $\mathbb{M}$ 44'42	2°06'37		-576 Nov 17 j 23:13	15° $\mathbb{M}$	
minimum elong	-582 Sep 05 j 11:59	5° $\mathbb{M}$ 44'42	2°06'38	morning rise	-576 Nov 28 j 10:55	16° $\mathbb{M}$ 12'52	
max. Earth dist.	-582 Sep 05 j 14:17	5° $\mathbb{M}$ 45'24	10.76577 AU	retrograde	-575 Mar 08 j 17:51	23° $\mathbb{M}$ 08'09	
morning rise	-582 Sep 22 j 11:16	7° $\mathbb{M}$ 46'48		opposition	-575 May 18 j 09:16	19° $\mathbb{M}$ 50'56	1°52'58
retrograde	-582 Dec 30 j 17:44	14° $\mathbb{M}$ 55'32		min. Earth dist.	-575 May 18 j 17:48	19° $\mathbb{M}$ 49'22	9.12497 AU
opposition	-581 Mar 09 j 00:38	11° $\mathbb{M}$ 37'09	2°42'04	direct	-575 Jul 28 j 12:52	16° $\mathbb{M}$ 32'16	
min. Earth dist.	-581 Mar 08 j 22:42	11° $\mathbb{M}$ 37'31	8.82579 AU	evening set	-575 Nov 06 j 14:24	23° $\mathbb{M}$ 30'05	
direct	-581 May 18 j 21:41	8° $\mathbb{M}$ 13'10					
evening set	-581 Aug 31 j 18:08	15° $\mathbb{M}$ 38'43		conjunction	-575 Nov 23 j 02:53	25° $\mathbb{M}$ 25'30	1°21'56
				minimum elong	-575 Nov 23 j 02:56	25° $\mathbb{M}$ 25'31	1°21'55
conjunction	-581 Sep 17 j 17:32	17° $\mathbb{M}$ 39'34	2°16'23	max. Earth dist.	-575 Nov 22 j 16:16	25° $\mathbb{M}$ 22'23	11.10976 AU
minimum elong	-581 Sep 17 j 17:31	17° $\mathbb{M}$ 39'34	2°16'23	morning rise	-575 Dec 09 j 15:21	27° $\mathbb{M}$ 20'57	
max. Earth dist.	-581 Sep 17 j 18:03	17° $\mathbb{M}$ 39'43	10.87950 AU		-574 Jan 02 j 22:43	0° $\mathbb{Z}$	
morning rise	-581 Oct 04 j 12:20	19° $\mathbb{M}$ 39'06		retrograde	-574 Mar 20 j 12:17	4° $\mathbb{Z}$ 19'28	
retrograde	-580 Jan 11 j 14:58	26° $\mathbb{M}$ 41'43		opposition	-574 May 30 j 08:56	1° $\mathbb{Z}$ 01'27	1°25'54
opposition	-580 Mar 20 j 08:36	23° $\mathbb{M}$ 24'16	2°50'07	min. Earth dist.	-574 May 30 j 18:28	0° $\mathbb{Z}$ 59'42	9.08983 AU
min. Earth dist.	-580 Mar 20 j 08:59	23° $\mathbb{M}$ 24'12	8.93139 AU		-574 Jun 13 j 12:54	30° $\mathbb{R}$ $\mathbb{M}$	
direct	-580 May 30 j 11:43	20° $\mathbb{M}$ 01'33		direct	-574 Aug 09 j 06:23	27° $\mathbb{M}$ 42'57	
evening set	-580 Sep 11 j 19:14	27° $\mathbb{M}$ 19'43			-574 Oct 02 j 09:14	0° $\mathbb{Z}$	
				evening set	-574 Nov 17 j 18:33	4° $\mathbb{Z}$ 40'47	
conjunction	-580 Sep 28 j 14:43	29° $\mathbb{M}$ 18'23	2°20'15				
minimum elong	-580 Sep 28 j 14:43	29° $\mathbb{M}$ 18'23	2°20'15	conjunction	-574 Dec 04 j 07:47	6° $\mathbb{Z}$ 37'00	0°58'11
max. Earth dist.	-580 Sep 28 j 12:41	29° $\mathbb{M}$ 17'47	10.97528 AU	minimum elong	-574 Dec 04 j 07:49	6° $\mathbb{Z}$ 37'00	0°58'10
	-580 Oct 04 j 11:16	0° $\Omega$		max. Earth dist.	-574 Dec 03 j 20:57	6° $\mathbb{Z}$ 33'48	11.06313 AU
morning rise	-580 Oct 15 j 06:05	1° $\Omega$ 15'54		morning rise	-574 Dec 20 j 21:50	8° $\mathbb{Z}$ 33'29	
retrograde	-579 Jan 22 j 08:06	8° $\Omega$ 13'58		retrograde	-573 Apr 01 j 11:01	15° $\mathbb{Z}$ 36'51	
opposition	-579 Apr 01 j 12:30	4° $\Omega$ 57'12	2°51'06	opposition	-573 Jun 11 j 11:03	12° $\mathbb{Z}$ 17'47	0°55'15
min. Earth dist.	-579 Apr 01 j 15:38	4° $\Omega$ 56'37	9.01725 AU	min. Earth dist.	-573 Jun 11 j 20:18	12° $\mathbb{Z}$ 16'05	9.03122 AU
direct	-579 Jun 11 j 21:12	1° $\Omega$ 35'38		direct	-573 Aug 20 j 23:32	8° $\mathbb{Z}$ 59'17	
evening set	-579 Sep 23 j 12:43	8° $\Omega$ 47'25		evening set	-573 Nov 29 j 01:19	15° $\mathbb{Z}$ 58'42	
conjunction	-579 Oct 10 j 05:05	10° $\Omega$ 44'25	2°18'25	conjunction	-573 Dec 15 j 15:54	17° $\mathbb{Z}$ 56'06	0°31'55
minimum elong	-579 Oct 10 j 05:06	10° $\Omega$ 44'25	2°18'25	minimum elong	-573 Dec 15 j 15:55	17° $\mathbb{Z}$ 56'06	0°31'55
max. Earth dist.	-579 Oct 09 j 23:56	10° $\Omega$ 42'54	11.05015 AU	max. Earth dist.	-573 Dec 15 j 05:50	17° $\mathbb{Z}$ 53'07	10.99381 AU
morning rise	-579 Oct 26 j 18:10	12° $\Omega$ 40'28		morning rise	-572 Jan 01 j 07:54	19° $\mathbb{Z}$ 54'01	
retrograde	-578 Feb 02 j 22:24	19° $\Omega$ 35'31		retrograde	-572 Apr 12 j 16:41	27° $\mathbb{Z}$ 03'50	
opposition	-578 Apr 13 j 13:31	16° $\Omega$ 19'07	2°45'21	opposition	-572 Jun 22 j 16:36	23° $\mathbb{Z}$ 43'33	0°21'58
min. Earth dist.	-578 Apr 13 j 18:41	16° $\Omega$ 18'10	9.08089 AU	min. Earth dist.	-572 Jun 23 j 01:04	23° $\mathbb{Z}$ 41'58	8.95101 AU
direct	-578 Jun 24 j 00:40	12° $\Omega$ 58'34		direct	-572 Aug 31 j 18:39	20° $\mathbb{Z}$ 24'50	
evening set	-578 Oct 05 j 00:04	20° $\Omega$ 05'00		evening set	-572 Dec 09 j 12:55	27° $\mathbb{Z}$ 27'27	
conjunction	-578 Oct 21 j 14:16	22° $\Omega$ 00'51	2°11'13	conjunction	-572 Dec 26 j 05:04	29° $\mathbb{Z}$ 26'26	0°04'02
minimum elong	-578 Oct 21 j 14:17	22° $\Omega$ 00'51	2°11'13	minimum elong	-572 Dec 26 j 05:04	29° $\mathbb{Z}$ 26'26	0°04'02
max. Earth dist.	-578 Oct 21 j 07:13	21° $\Omega$ 58'47	11.10208 AU	behind sun begin	-572 Dec 25 j 22:09	29° $\mathbb{Z}$ 24'23	

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 28

Attention, astronomical year style is used: The year -572 in astronomical counting style is the year 573 BCE in historical counting style.

behind sun end	-572 Dec 26 j 11:58	29° <del>2</del> 28'28		conjunction	-565 Mar 12 j 11:28	15° <del>1</del> 06'40	-2°-13'-37
max. Earth dist.	-572 Dec 25 j 18:51	29° <del>2</del> 23'23	10.90404 AU	minimum elong	-565 Mar 12 j 11:26	15° <del>1</del> 06'40	2°13'38
	-572 Dec 30 j 21:12	0° <del>3</del>		max. Earth dist.	-565 Mar 12 j 11:11	15° <del>1</del> 06'35	10.17896 AU
morning rise	-571 Jan 11 j 23:31	1° <del>3</del> 26'09		morning rise	-565 Mar 30 j 01:37	17° <del>1</del> 21'55	
desc. node	-571 Feb 16 j 16:15	5° <del>3</del> 16'42		retrograde	-565 Jul 15 j 14:25	25° <del>1</del> 40'20	
retrograde	-571 Apr 25 j 05:37	8° <del>3</del> 43'50		opposition	-565 Sep 22 j 03:27	22° <del>1</del> 10'44	-2°-50'-55
opposition	-571 Jul 05 j 02:35	5° <del>3</del> 22'14	0°-12'-53	min. Earth dist.	-565 Sep 22 j 02:10	22° <del>1</del> 11'00	8.12979 AU
min. Earth dist.	-571 Jul 05 j 10:53	5° <del>3</del> 20'40	8.85198 AU	direct	-565 Nov 27 j 13:05	18° <del>1</del> 45'46	
direct	-571 Sep 12 j 15:14	2° <del>3</del> 03'05		evening set	-564 Mar 08 j 11:09	26° <del>1</del> 44'48	
evening set	-571 Dec 21 j 06:52	9° <del>3</del> 10'34					
conjunction	-570 Jan 07 j 00:52	11° <del>3</del> 11'25	0°-24'-40	conjunction	-564 Mar 26 j 00:32	29° <del>1</del> 01'06	-2°-18'-40
minimum elong	-570 Jan 07 j 00:51	11° <del>3</del> 11'24	0°24'40	minimum elong	-564 Mar 26 j 00:32	29° <del>1</del> 01'06	2°18'42
max. Earth dist.	-570 Jan 06 j 14:35	11° <del>3</del> 08'18	10.79712 AU	max. Earth dist.	-564 Mar 26 j 02:56	29° <del>1</del> 01'53	10.08300 AU
morning rise	-570 Jan 23 j 22:09	13° <del>3</del> 13'17			-564 Apr 02 j 13:35	0° <del>1</del>	
retrograde	-570 May 08 j 00:06	20° <del>3</del> 40'12		morning rise	-564 Apr 12 j 18:35	1° <del>1</del> 18'54	
opposition	-570 Jul 17 j 18:16	17° <del>3</del> 17'09	0°-48'-4	retrograde	-564 Jul 29 j 09:02	9° <del>1</del> 43'47	
min. Earth dist.	-570 Jul 18 j 02:11	17° <del>3</del> 15'39	8.73792 AU	opposition	-564 Oct 05 j 09:12	6° <del>1</del> 13'32	-2°-52'-26
direct	-570 Sep 24 j 17:20	13° <del>3</del> 57'21		min. Earth dist.	-564 Oct 05 j 06:08	6° <del>1</del> 14'10	8.04547 AU
evening set	-569 Jan 02 j 08:44	21° <del>3</del> 11'13		direct	-564 Dec 10 j 13:08	2° <del>1</del> 47'23	
				evening set	-563 Mar 23 j 05:31	10° <del>1</del> 54'27	
conjunction	-569 Jan 19 j 05:03	23° <del>3</del> 14'16	0°-52'-50	conjunction	-563 Apr 09 j 23:20	13° <del>1</del> 13'06	-2°-15'-31
minimum elong	-569 Jan 19 j 05:01	23° <del>3</del> 14'16	0°52'51	minimum elong	-563 Apr 09 j 23:22	13° <del>1</del> 13'07	2°15'32
max. Earth dist.	-569 Jan 18 j 20:02	23° <del>3</del> 11'30	10.67714 AU	max. Earth dist.	-563 Apr 10 j 04:44	13° <del>1</del> 14'53	10.01106 AU
morning rise	-569 Feb 05 j 05:20	25° <del>3</del> 18'33		morning rise	-563 Apr 27 j 21:05	15° <del>1</del> 33'02	
	-569 Mar 20 j 21:49	0° <del>3</del>		retrograde	-563 Aug 13 j 05:45	24° <del>1</del> 01'23	
retrograde	-569 May 21 j 04:32	2° <del>3</del> 55'48		opposition	-563 Oct 19 j 18:22	20° <del>1</del> 30'51	-2°-43'-24
	-569 Jul 24 j 09:43	30° <del>3</del> R <del>3</del>		min. Earth dist.	-563 Oct 19 j 13:20	20° <del>1</del> 31'53	7.98725 AU
opposition	-569 Jul 30 j 16:10	29° <del>3</del> 31'14	-1°-22'-5	direct	-563 Dec 24 j 21:20	17° <del>1</del> 03'36	
min. Earth dist.	-569 Jul 30 j 22:52	29° <del>3</del> 29'57	8.61341 AU	evening set	-562 Apr 07 j 07:29	25° <del>1</del> 16'51	
direct	-569 Oct 07 j 02:24	26° <del>3</del> 10'38					
	-569 Dec 14 j 13:52	0° <del>3</del>		conjunction	-562 Apr 25 j 05:37	27° <del>1</del> 37'24	-2°-3'-57
evening set	-568 Jan 14 j 20:18	3° <del>3</del> 32'14		minimum elong	-562 Apr 25 j 05:40	27° <del>1</del> 37'25	2°03'58
conjunction	-568 Jan 31 j 19:22	5° <del>3</del> 37'44	-1°-19'-17	max. Earth dist.	-562 Apr 25 j 13:30	27° <del>1</del> 39'59	9.96733 AU
minimum elong	-568 Jan 31 j 19:19	5° <del>3</del> 37'43	1°19'18	morning rise	-562 May 13 j 06:38	29° <del>1</del> 58'52	
max. Earth dist.	-568 Jan 31 j 12:45	5° <del>3</del> 35'41	10.54908 AU		-562 May 13 j 10:08	0° <del>8</del>	
morning rise	-568 Feb 17 j 22:43	7° <del>3</del> 44'39		retrograde	-562 Aug 28 j 01:55	8° <del>8</del> 27'20	
	-568 May 08 j 04:53	15° <del>3</del>		opposition	-562 Nov 03 j 05:03	4° <del>8</del> 56'53	-2°-23'-58
retrograde	-568 Jun 02 j 18:48	15° <del>3</del> 32'51		min. Earth dist.	-562 Nov 02 j 22:26	4° <del>8</del> 58'16	7.95814 AU
	-568 Jun 28 j 12:56	15° <del>3</del> R <del>3</del>		direct	-561 Jan 08 j 09:55	1° <del>8</del> 28'41	
opposition	-568 Aug 11 j 20:36	12° <del>3</del> 06'47	-1°-53'-16	evening set	-561 Apr 22 j 14:21	9° <del>8</del> 45'59	
min. Earth dist.	-568 Aug 12 j 01:07	12° <del>3</del> 05'54	8.48387 AU	conjunction	-561 May 10 j 16:11	12° <del>8</del> 07'45	-1°-44'-30
direct	-568 Oct 18 j 16:43	8° <del>3</del> 45'14		minimum elong	-561 May 10 j 16:15	12° <del>8</del> 07'47	1°44'31
	-567 Jan 16 j 08:44	15° <del>3</del>		max. Earth dist.	-561 May 11 j 01:47	12° <del>8</del> 10'55	9.95367 AU
evening set	-567 Jan 26 j 18:44	16° <del>3</del> 15'42		morning rise	-561 May 28 j 19:36	14° <del>8</del> 30'03	
conjunction	-567 Feb 12 j 20:48	18° <del>3</del> 23'51	-1°-42'-34		-561 Jun 01 j 17:06	15° <del>8</del>	
minimum elong	-567 Feb 12 j 20:45	18° <del>3</del> 23'50	1°42'35	retrograde	-561 Sep 11 j 20:33	22° <del>8</del> 55'26	
max. Earth dist.	-567 Feb 12 j 16:19	18° <del>3</del> 22'26	10.41885 AU	opposition	-561 Nov 17 j 15:36	19° <del>8</del> 25'32	-1°-55'-18
morning rise	-567 Mar 02 j 03:28	20° <del>3</del> 33'30		min. Earth dist.	-561 Nov 17 j 07:49	19° <del>8</del> 27'09	7.95931 AU
retrograde	-567 Jun 16 j 17:37	28° <del>3</del> 32'44		direct	-560 Jan 23 j 01:16	15° <del>8</del> 56'37	
opposition	-567 Aug 25 j 08:15	25° <del>3</del> 05'17	-2°-19'-43	evening set	-560 May 06 j 23:10	24° <del>8</del> 15'38	
min. Earth dist.	-567 Aug 25 j 10:30	25° <del>3</del> 04'50	8.35554 AU	conjunction	-560 May 25 j 03:30	26° <del>8</del> 37'48	-1°-18'-28
direct	-567 Oct 31 j 14:50	21° <del>3</del> 42'40		minimum elong	-560 May 25 j 03:33	26° <del>8</del> 37'49	1°18'28
evening set	-566 Feb 09 j 04:36	29° <del>3</del> 22'42		max. Earth dist.	-560 May 25 j 14:14	26° <del>8</del> 41'20	9.97088 AU
	-566 Feb 14 j 03:26	0° <del>1</del>		morning rise	-560 Jun 12 j 07:59	29° <del>8</del> 00'02	
conjunction	-566 Feb 26 j 09:58	1° <del>1</del> 33'36	-2°-1'-10		-560 Jun 20 j 04:56	0° <del>1</del> II	
minimum elong	-566 Feb 26 j 09:56	1° <del>1</del> 33'35	2°01'11	retrograde	-560 Sep 25 j 11:05	7° <del>1</del> II19'31	
max. Earth dist.	-566 Feb 26 j 07:35	1° <del>1</del> 32'50	10.29314 AU	opposition	-560 Dec 01 j 00:13	3° <del>1</del> II50'31	-1°-19'-27
morning rise	-566 Mar 15 j 20:15	3° <del>1</del> 46'04		min. Earth dist.	-560 Nov 30 j 15:53	3° <del>1</del> II52'15	7.99153 AU
retrograde	-566 Jul 01 j 00:31	11° <del>1</del> 35'40		direct	-559 Feb 05 j 17:59	0° <del>1</del> II21'09	
opposition	-566 Sep 08 j 02:49	8° <del>1</del> 27'01	-2°-39'-32	evening set	-559 May 22 j 06:48	8° <del>1</del> II39'23	
min. Earth dist.	-566 Sep 08 j 03:06	8° <del>1</del> 26'57	8.23523 AU	conjunction	-559 Jun 09 j 12:02	11° <del>1</del> II00'59	0°-47'-41
direct	-566 Nov 13 j 21:47	5° <del>1</del> 03'15		minimum elong	-559 Jun 09 j 12:04	11° <del>1</del> II00'59	0°47'42
evening set	-565 Feb 23 j 02:19	12° <del>1</del> 35'01		max. Earth dist.	-559 Jun 09 j 23:10	11° <del>1</del> II04'36	10.01901 AU



# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 29

Attention, astronomical year style is used: The year -559 in astronomical counting style is the year 560 BCE in historical counting style.

morning rise	-559 Jun 27 j 16:05	13° $\Pi$ 22'11		evening set	-553 Aug 14 j 06:56	28° $\Omega$ 44'06	
retrograde	-559 Oct 09 j 19:07	21° $\Pi$ 33'23			-553 Aug 24 j 19:40	0° $\eta$	
opposition	-559 Dec 15 j 05:11	18° $\Pi$ 05'34	0°-39'-7				
min. Earth dist.	-559 Dec 14 j 20:57	18° $\Pi$ 07'16	8.05385 AU	conjunction	-553 Aug 31 j 13:18	0° $\eta$ 49'01	2°00'43
direct	-558 Feb 20 j 10:24	14° $\Pi$ 36'01		minimum elong	-553 Aug 31 j 13:15	0° $\eta$ 49'00	2°00'43
evening set	-558 Jun 06 j 10:05	22° $\Pi$ 51'03		max. Earth dist.	-553 Aug 31 j 17:18	0° $\eta$ 50'14	10.70101 AU
				morning rise	-553 Sep 17 j 14:36	2° $\eta$ 52'27	
conjunction	-558 Jun 24 j 14:27	25° $\Pi$ 11'07	0°-14'-26	retrograde	-553 Dec 26 j 00:01	10° $\eta$ 04'25	
minimum elong	-558 Jun 24 j 14:28	25° $\Pi$ 11'07	0°14'26	opposition	-552 Mar 03 j 02:18	6° $\eta$ 45'04	2°36'32
behind sun begin	-558 Jun 24 j 11:25	25° $\Pi$ 10'09		min. Earth dist.	-552 Mar 03 j 00:19	6° $\eta$ 45'26	8.76333 AU
behind sun end	-558 Jun 24 j 17:31	25° $\Pi$ 12'06		direct	-552 May 12 j 18:27	3° $\eta$ 19'59	
max. Earth dist.	-558 Jun 25 j 01:09	25° $\Pi$ 14'34	10.09556 AU	evening set	-552 Aug 25 j 21:13	10° $\eta$ 49'06	
morning rise	-558 Jul 12 j 16:28	27° $\Pi$ 30'24					
	-558 Aug 02 j 03:21	0° $\Theta$		conjunction	-552 Sep 11 j 22:33	12° $\eta$ 51'09	2°13'00
retrograde	-558 Oct 23 j 18:04	5° $\Theta$ 31'40		minimum elong	-552 Sep 11 j 22:31	12° $\eta$ 51'08	2°13'00
asc. node	-558 Dec 03 j 22:14	4° $\Theta$ 02'00		max. Earth dist.	-552 Sep 11 j 23:40	12° $\eta$ 51'29	10.82086 AU
opposition	-558 Dec 29 j 05:04	2° $\Theta$ 05'16	0°02'47	morning rise	-552 Sep 28 j 19:19	14° $\eta$ 51'49	
min. Earth dist.	-558 Dec 28 j 21:18	2° $\Theta$ 06'52	8.14258 AU	retrograde	-551 Jan 05 j 21:33	21° $\eta$ 56'55	
	-557 Jan 25 j 15:02	30° $\mathbb{R}$ $\Pi$		opposition	-551 Mar 15 j 12:00	18° $\eta$ 38'35	2°47'40
direct	-557 Mar 07 j 01:09	28° $\Pi$ 35'50		min. Earth dist.	-551 Mar 15 j 11:41	18° $\eta$ 38'39	8.87742 AU
	-557 Apr 16 j 04:55	0° $\Theta$		direct	-551 May 25 j 13:07	15° $\eta$ 14'46	
evening set	-557 Jun 21 j 06:19	6° $\Theta$ 45'36		evening set	-551 Sep 07 j 01:49	22° $\eta$ 36'03	
conjunction	-557 Jul 09 j 08:06	9° $\Theta$ 03'18	0°19'07	conjunction	-551 Sep 23 j 22:53	24° $\eta$ 35'38	2°19'23
minimum elong	-557 Jul 09 j 08:04	9° $\Theta$ 03'17	0°19'08	minimum elong	-551 Sep 23 j 22:52	24° $\eta$ 35'37	2°19'22
max. Earth dist.	-557 Jul 09 j 17:43	9° $\Theta$ 06'22	10.19566 AU	max. Earth dist.	-551 Sep 23 j 21:46	24° $\eta$ 35'18	10.92720 AU
morning rise	-557 Jul 27 j 06:31	11° $\Theta$ 19'53		morning rise	-551 Oct 10 j 15:52	26° $\eta$ 34'00	
retrograde	-557 Nov 06 j 06:33	19° $\Theta$ 10'27			-551 Nov 11 j 09:59	0° $\Omega$	
opposition	-556 Jan 11 j 22:45	15° $\Theta$ 45'34	0°43'31	retrograde	-550 Jan 17 j 15:43	3° $\Omega$ 33'43	
min. Earth dist.	-556 Jan 11 j 15:30	15° $\Theta$ 47'02	8.25214 AU	opposition	-550 Mar 27 j 16:58	0° $\Omega$ 16'12	2°51'38
direct	-556 Mar 20 j 10:29	12° $\Theta$ 16'34		min. Earth dist.	-550 Mar 27 j 17:48	0° $\Omega$ 16'03	8.97562 AU
evening set	-556 Jul 04 j 17:08	20° $\Theta$ 19'25			-550 Mar 31 j 07:27	30° $\mathbb{R}$ $\eta$	
				direct	-550 Jun 07 j 01:53	26° $\eta$ 53'40	
conjunction	-556 Jul 22 j 14:58	22° $\Theta$ 34'09	0°50'48		-550 Aug 10 j 10:21	0° $\Omega$	
minimum elong	-556 Jul 22 j 14:56	22° $\Theta$ 34'09	0°50'49	evening set	-550 Sep 18 j 21:57	4° $\Omega$ 07'54	
max. Earth dist.	-556 Jul 22 j 23:18	22° $\Theta$ 36'47	10.31316 AU				
morning rise	-556 Aug 09 j 08:39	24° $\Theta$ 47'33		conjunction	-550 Oct 05 j 15:42	6° $\Omega$ 05'33	2°19'57
	-556 Sep 26 j 06:57	0° $\Omega$		minimum elong	-550 Oct 05 j 15:42	6° $\Omega$ 05'33	2°19'56
retrograde	-556 Nov 18 j 11:10	2° $\Omega$ 27'22		max. Earth dist.	-550 Oct 05 j 13:22	6° $\Omega$ 04'51	11.01588 AU
	-555 Jan 12 j 13:49	30° $\mathbb{R}$ $\Theta$		morning rise	-550 Oct 22 j 05:41	8° $\Omega$ 02'08	
opposition	-555 Jan 24 j 09:40	29° $\Theta$ 03'59	1°20'43	retrograde	-549 Jan 29 j 07:35	14° $\Omega$ 57'58	
min. Earth dist.	-555 Jan 24 j 02:43	29° $\Theta$ 05'22	8.37594 AU	opposition	-549 Apr 08 j 18:37	11° $\Omega$ 41'03	2°48'42
direct	-555 Apr 03 j 12:27	25° $\Theta$ 35'42		min. Earth dist.	-549 Apr 08 j 20:48	11° $\Omega$ 40'38	9.05429 AU
	-555 Jun 18 j 01:27	0° $\Omega$		direct	-549 Jun 19 j 06:00	8° $\Omega$ 19'45	
evening set	-555 Jul 18 j 17:01	3° $\Omega$ 30'31		evening set	-549 Sep 30 j 11:07	15° $\Omega$ 27'55	
conjunction	-555 Aug 05 j 10:04	5° $\Omega$ 42'00	1°19'02	conjunction	-549 Oct 17 j 02:18	17° $\Omega$ 24'08	2°15'01
minimum elong	-555 Aug 05 j 10:01	5° $\Omega$ 41'59	1°19'03	minimum elong	-549 Oct 17 j 02:19	17° $\Omega$ 24'08	2°15'01
max. Earth dist.	-555 Aug 05 j 17:25	5° $\Omega$ 44'17	10.44115 AU	max. Earth dist.	-549 Oct 16 j 22:31	17° $\Omega$ 23'02	11.08370 AU
morning rise	-555 Aug 22 j 22:20	7° $\Omega$ 51'58		morning rise	-549 Nov 02 j 14:20	19° $\Omega$ 19'31	
	-555 Nov 11 j 10:13	15° $\Omega$		retrograde	-548 Feb 09 j 20:34	26° $\Omega$ 13'01	
retrograde	-555 Dec 01 j 07:38	15° $\Omega$ 21'32		opposition	-548 Apr 19 j 17:51	22° $\Omega$ 56'27	2°39'19
	-555 Dec 21 j 08:04	15° $\mathbb{R}$ $\Omega$		min. Earth dist.	-548 Apr 19 j 22:15	22° $\Omega$ 55'38	9.11071 AU
opposition	-554 Feb 06 j 13:41	11° $\Omega$ 59'36	1°52'38	direct	-548 Jun 30 j 05:45	19° $\Omega$ 36'15	
min. Earth dist.	-554 Feb 06 j 07:41	12° $\Omega$ 00'47	8.50682 AU	evening set	-548 Oct 10 j 19:12	26° $\Omega$ 39'33	
direct	-554 Apr 17 j 06:19	8° $\Omega$ 32'14					
	-554 Jul 21 j 04:13	15° $\Omega$		conjunction	-548 Oct 27 j 08:35	28° $\Omega$ 34'51	2°04'56
evening set	-554 Aug 01 j 05:40	16° $\Omega$ 18'29		minimum elong	-548 Oct 27 j 08:37	28° $\Omega$ 34'51	2°04'57
				max. Earth dist.	-548 Oct 27 j 02:17	28° $\Omega$ 33'00	11.12838 AU
conjunction	-554 Aug 18 j 17:25	18° $\Omega$ 26'37	1°42'36		-548 Nov 08 j 13:00	0° $\mathbb{M}$	
minimum elong	-554 Aug 18 j 17:22	18° $\Omega$ 26'36	1°42'36	morning rise	-548 Nov 12 j 19:48	0° $\mathbb{M}$ 29'34	
max. Earth dist.	-554 Aug 18 j 23:30	18° $\Omega$ 28'29	10.57256 AU	retrograde	-547 Feb 20 j 09:34	7° $\mathbb{M}$ 22'15	
morning rise	-554 Sep 05 j 00:01	20° $\Omega$ 33'12		opposition	-547 May 01 j 15:28	4° $\mathbb{M}$ 05'47	2°24'02
retrograde	-554 Dec 13 j 19:13	27° $\Omega$ 53'22		min. Earth dist.	-547 May 01 j 21:38	4° $\mathbb{M}$ 04'39	9.14299 AU
opposition	-553 Feb 19 j 10:58	24° $\Omega$ 32'48	2°18'07	direct	-547 Jul 12 j 02:16	0° $\mathbb{M}$ 46'30	
min. Earth dist.	-553 Feb 19 j 06:46	24° $\Omega$ 33'37	8.63799 AU	evening set	-547 Oct 21 j 23:46	7° $\mathbb{M}$ 46'12	
direct	-553 Apr 30 j 16:39	21° $\Omega$ 06'31					

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 30

Attention, astronomical year style is used: The year -547 in astronomical counting style is the year 548 BCE in historical counting style.

conjunction	-547 Nov 07 j 12:15	9° $\mathbb{M}$ 41'07	1°50'12	direct	-541 Sep 19 j 15:50	8° $\mathfrak{Z}$ 48'24	
minimum elong	-547 Nov 07 j 12:17	9° $\mathbb{M}$ 41'08	1°50'12	evening set	-541 Dec 28 j 06:02	15° $\mathfrak{Z}$ 57'50	
max. Earth dist.	-547 Nov 07 j 04:26	9° $\mathbb{M}$ 38'50	11.14842 AU				
morning rise	-547 Nov 23 j 23:26	11° $\mathbb{M}$ 35'41		conjunction	-540 Jan 14 j 01:10	17° $\mathfrak{Z}$ 59'29	0°-40'-12
	-547 Dec 26 j 03:13	15° $\mathbb{M}$		minimum elong	-540 Jan 14 j 01:09	17° $\mathfrak{Z}$ 59'28	0°40'13
retrograde	-546 Mar 03 j 22:51	18° $\mathbb{M}$ 29'12		max. Earth dist.	-540 Jan 13 j 15:30	17° $\mathfrak{Z}$ 56'33	10.76371 AU
opposition	-546 May 13 j 12:52	15° $\mathbb{M}$ 12'29	2°03'26	morning rise	-540 Jan 30 j 23:43	20° $\mathfrak{Z}$ 02'13	
min. Earth dist.	-546 May 13 j 19:41	15° $\mathbb{M}$ 11'14	9.14999 AU	retrograde	-540 May 14 j 13:56	27° $\mathfrak{Z}$ 33'17	
	-546 May 16 j 09:12	15° $\mathbb{R}$ $\mathbb{M}$		opposition	-540 Jul 24 j 03:35	24° $\mathfrak{Z}$ 10'06	-1°-6'-49
direct	-546 Jul 23 j 20:06	11° $\mathbb{M}$ 53'57		min. Earth dist.	-540 Jul 24 j 11:00	24° $\mathfrak{Z}$ 08'41	8.69982 AU
	-546 Sep 26 j 00:53	15° $\mathbb{M}$		direct	-540 Sep 30 j 20:10	20° $\mathfrak{Z}$ 50'31	
evening set	-546 Nov 02 j 02:28	18° $\mathbb{M}$ 51'26		evening set	-539 Jan 08 j 12:18	28° $\mathfrak{Z}$ 07'10	
					-539 Jan 23 j 21:33	0° $\approx$	
conjunction	-546 Nov 18 j 14:53	20° $\mathbb{M}$ 46'25	1°31'21				
minimum elong	-546 Nov 18 j 14:55	20° $\mathbb{M}$ 46'26	1°31'20	conjunction	-539 Jan 25 j 09:47	0° $\approx$ 11'10	-1°-7'-31
max. Earth dist.	-546 Nov 18 j 06:57	20° $\mathbb{M}$ 44'06	11.14304 AU	minimum elong	-539 Jan 25 j 09:45	0° $\approx$ 11'09	1°07'32
morning rise	-546 Dec 05 j 02:36	22° $\mathbb{M}$ 41'18		max. Earth dist.	-539 Jan 25 j 00:11	0° $\approx$ 08'12	10.63452 AU
retrograde	-545 Mar 15 j 17:06	29° $\mathbb{M}$ 37'15		morning rise	-539 Feb 11 j 11:29	2° $\approx$ 16'29	
opposition	-545 May 25 j 11:10	26° $\mathbb{M}$ 20'03	1°38'12	retrograde	-539 May 27 j 22:27	9° $\approx$ 58'19	
min. Earth dist.	-545 May 25 j 18:18	26° $\mathbb{M}$ 18'45	9.13148 AU	opposition	-539 Aug 06 j 04:11	6° $\approx$ 33'30	-1°-39'-24
direct	-545 Aug 04 j 12:56	23° $\mathbb{M}$ 02'02		min. Earth dist.	-539 Aug 06 j 10:59	6° $\approx$ 32'11	8.56696 AU
evening set	-545 Nov 13 j 05:26	29° $\mathbb{M}$ 58'42		direct	-539 Oct 13 j 06:10	3° $\approx$ 12'51	
	-545 Nov 13 j 09:59	0° $\mathfrak{A}$		evening set	-538 Jan 21 j 04:43	10° $\approx$ 38'01	
conjunction	-545 Nov 29 j 18:17	1° $\mathfrak{A}$ 54'14	1°08'59	conjunction	-538 Feb 07 j 05:01	12° $\approx$ 44'35	-1°-32'-21
minimum elong	-545 Nov 29 j 18:19	1° $\mathfrak{A}$ 54'15	1°08'58	minimum elong	-538 Feb 07 j 04:58	12° $\approx$ 44'34	1°32'23
max. Earth dist.	-545 Nov 29 j 09:23	1° $\mathfrak{A}$ 51'38	11.11240 AU	max. Earth dist.	-538 Feb 06 j 20:56	12° $\approx$ 42'04	10.49919 AU
morning rise	-545 Dec 16 j 07:18	3° $\mathfrak{A}$ 49'55		morning rise	-538 Feb 24 j 10:03	14° $\approx$ 52'40	
retrograde	-544 Mar 26 j 13:20	10° $\mathfrak{A}$ 49'48			-538 Feb 25 j 10:06	15° $\approx$	
opposition	-544 Jun 05 j 11:19	7° $\mathfrak{A}$ 31'53	1°09'06	retrograde	-538 Jun 10 j 15:01	22° $\approx$ 45'42	
min. Earth dist.	-544 Jun 05 j 19:31	7° $\mathfrak{A}$ 30'22	9.08810 AU	opposition	-538 Aug 19 j 11:51	19° $\approx$ 19'13	-2°-8'-11
direct	-544 Aug 15 j 02:46	4° $\mathfrak{A}$ 14'05		min. Earth dist.	-538 Aug 19 j 17:18	19° $\approx$ 18'09	8.43149 AU
evening set	-544 Nov 23 j 10:19	11° $\mathfrak{A}$ 11'31		direct	-538 Oct 26 j 01:06	15° $\approx$ 57'19	
				evening set	-537 Feb 03 j 08:16	23° $\approx$ 31'54	
conjunction	-544 Dec 10 j 00:01	13° $\mathfrak{A}$ 08'00	0°43'47				
minimum elong	-544 Dec 10 j 00:02	13° $\mathfrak{A}$ 08'00	0°43'47	conjunction	-537 Feb 20 j 11:53	25° $\approx$ 41'15	-1°-53'-15
max. Earth dist.	-544 Dec 09 j 13:43	13° $\mathfrak{A}$ 04'58	11.05740 AU	minimum elong	-537 Feb 20 j 11:51	25° $\approx$ 41'14	1°53'17
morning rise	-544 Dec 26 j 15:01	15° $\mathfrak{A}$ 04'54		max. Earth dist.	-537 Feb 20 j 06:30	25° $\approx$ 39'33	10.36445 AU
retrograde	-543 Apr 07 j 14:00	22° $\mathfrak{A}$ 10'21		morning rise	-537 Mar 09 j 20:24	27° $\approx$ 52'10	
opposition	-543 Jun 17 j 14:26	18° $\mathfrak{A}$ 51'24	0°36'59		-537 Mar 27 j 13:39	0° $\mathfrak{H}$	
min. Earth dist.	-543 Jun 17 j 23:34	18° $\mathfrak{A}$ 49'43	9.02100 AU	retrograde	-537 Jun 24 j 16:32	5° $\mathfrak{H}$ 56'09	
direct	-543 Aug 26 j 21:00	15° $\mathfrak{A}$ 33'32		opposition	-537 Sep 02 j 02:26	2° $\mathfrak{H}$ 28'08	-2°-31'-17
evening set	-543 Dec 04 j 18:47	22° $\mathfrak{A}$ 33'20		min. Earth dist.	-537 Sep 02 j 05:40	2° $\mathfrak{H}$ 27'29	8.30022 AU
					-537 Oct 06 j 21:47	30° $\mathbb{R}$ $\approx$	
conjunction	-543 Dec 21 j 09:54	24° $\mathfrak{A}$ 31'10	0°16'35	direct	-537 Nov 08 j 04:30	29° $\approx$ 04'53	
minimum elong	-543 Dec 21 j 09:54	24° $\mathfrak{A}$ 31'10	0°16'35		-537 Dec 09 j 20:57	0° $\mathfrak{H}$	
max. Earth dist.	-543 Dec 20 j 23:22	24° $\mathfrak{A}$ 28'03	10.97939 AU	evening set	-536 Feb 16 j 23:40	6° $\mathfrak{H}$ 49'21	
morning rise	-542 Jan 07 j 03:07	26° $\mathfrak{A}$ 29'39					
	-542 Feb 08 j 14:14	0° $\mathfrak{Z}$		conjunction	-536 Mar 05 j 07:01	9° $\mathfrak{H}$ 01'33	-2°-8'-42
retrograde	-542 Apr 19 j 22:05	3° $\mathfrak{Z}$ 42'13		minimum elong	-536 Mar 05 j 06:59	9° $\mathfrak{H}$ 01'33	2°08'44
opposition	-542 Jun 29 j 21:30	0° $\mathfrak{Z}$ 22'01	0°02'49	max. Earth dist.	-536 Mar 05 j 04:38	9° $\mathfrak{H}$ 00'47	10.23733 AU
min. Earth dist.	-542 Jun 30 j 06:29	0° $\mathfrak{Z}$ 20'21	8.93191 AU	morning rise	-536 Mar 22 j 19:08	11° $\mathfrak{H}$ 15'20	
	-542 Jul 04 j 20:12	30° $\mathbb{R}$ $\mathfrak{A}$		retrograde	-536 Jul 08 j 02:57	19° $\mathfrak{H}$ 29'12	
desc. node	-542 Jul 30 j 09:44	28° $\mathfrak{A}$ 16'21		opposition	-536 Sep 14 j 23:26	15° $\mathfrak{H}$ 59'50	-2°-46'-48
direct	-542 Sep 07 j 17:04	27° $\mathfrak{A}$ 03'50		min. Earth dist.	-536 Sep 15 j 00:06	15° $\mathfrak{H}$ 59'42	8.18014 AU
	-542 Nov 07 j 11:45	0° $\mathfrak{Z}$		direct	-536 Nov 20 j 14:42	12° $\mathfrak{H}$ 35'12	
evening set	-542 Dec 16 j 08:45	4° $\mathfrak{Z}$ 07'37		evening set	-535 Mar 02 j 02:36	20° $\mathfrak{H}$ 29'28	
conjunction	-541 Jan 02 j 01:46	6° $\mathfrak{Z}$ 07'10	0°-11'-48	conjunction	-535 Mar 19 j 14:01	22° $\mathfrak{H}$ 44'29	-2°-17'-21
minimum elong	-541 Jan 02 j 01:45	6° $\mathfrak{Z}$ 07'10	0°11'49	minimum elong	-535 Mar 19 j 14:00	22° $\mathfrak{H}$ 44'28	2°17'22
behind sun begin	-541 Jan 01 j 20:48	6° $\mathfrak{Z}$ 05'42		max. Earth dist.	-535 Mar 19 j 14:28	22° $\mathfrak{H}$ 44'38	10.12500 AU
behind sun end	-541 Jan 02 j 06:43	6° $\mathfrak{Z}$ 08'38		morning rise	-535 Apr 06 j 05:58	25° $\mathfrak{H}$ 01'00	
max. Earth dist.	-541 Jan 01 j 15:54	6° $\mathfrak{Z}$ 04'13	10.88038 AU		-535 May 19 j 16:30	0° $\mathbb{Y}$	
morning rise	-541 Jan 18 j 21:27	8° $\mathfrak{Z}$ 07'37		retrograde	-535 Jul 22 j 19:29	3° $\mathbb{Y}$ 22'53	
retrograde	-541 May 02 j 13:12	15° $\mathfrak{Z}$ 28'48			-535 Sep 27 j 13:47	30° $\mathbb{R}$ $\mathfrak{H}$	
opposition	-541 Jul 12 j 09:33	12° $\mathfrak{Z}$ 07'09	0°-32'-13	opposition	-535 Sep 29 j 02:25	29° $\mathfrak{H}$ 52'31	-2°-53'-7
min. Earth dist.	-541 Jul 12 j 17:42	12° $\mathfrak{Z}$ 05'37	8.82344 AU	min. Earth dist.	-535 Sep 29 j 00:37	29° $\mathfrak{H}$ 52'53	8.07817 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 31

Attention, astronomical year style is used: The year -535 in astronomical counting style is the year 536 BCE in historical counting style.

direct	-535 Dec 04 j 09:41	26° <del>Λ</del> 26'31		retrograde	-529 Oct 17 j 15:34	29° <del>Π</del> 18'50	
	-534 Feb 06 j 07:43	0° <del>Υ</del>		opposition	-529 Dec 23 j 03:20	25° <del>Π</del> 51'16	0°-16'-50
evening set	-534 Mar 16 j 16:01	4° <del>Υ</del> 29'46		min. Earth dist.	-529 Dec 22 j 17:53	25° <del>Π</del> 53'13	8.08441 AU
				direct	-528 Feb 28 j 17:18	22° <del>Π</del> 21'22	
conjunction	-534 Apr 03 j 07:46	6° <del>Υ</del> 47'24	-2°-18'-7	asc. node	-528 May 23 j 01:30	27° <del>Π</del> 56'23	
minimum elong	-534 Apr 03 j 07:47	6° <del>Υ</del> 47'24	2°18'08		-528 Jun 09 j 05:11	0° <del>☿</del>	
max. Earth dist.	-534 Apr 03 j 10:42	6° <del>Υ</del> 48'22	10.03423 AU	evening set	-528 Jun 13 j 18:49	0° <del>☿</del> 34'19	
morning rise	-534 Apr 21 j 03:41	9° <del>Υ</del> 06'24					
retrograde	-534 Aug 06 j 15:48	17° <del>Υ</del> 33'39		conjunction	-528 Jul 01 j 22:13	2° <del>☿</del> 53'23	0°03'36
opposition	-534 Oct 13 j 09:57	14° <del>Υ</del> 02'39	-2°-49'-7	minimum elong	-528 Jul 01 j 22:14	2° <del>☿</del> 53'24	0°03'37
min. Earth dist.	-534 Oct 13 j 06:22	14° <del>Υ</del> 03'24	8.00051 AU	behind sun begin	-528 Jul 01 j 14:57	2° <del>☿</del> 51'05	
direct	-534 Dec 18 j 13:06	10° <del>Υ</del> 35'22		behind sun end	-528 Jul 02 j 05:30	2° <del>☿</del> 55'42	
evening set	-533 Mar 31 j 14:34	18° <del>Υ</del> 46'10		max. Earth dist.	-528 Jul 02 j 10:17	2° <del>☿</del> 57'15	10.13417 AU
				morning rise	-528 Jul 19 j 22:31	5° <del>☿</del> 11'29	
conjunction	-533 Apr 18 j 10:42	21° <del>Υ</del> 06'03	-2°-10'-30	retrograde	-528 Oct 30 j 10:35	13° <del>☿</del> 07'44	
minimum elong	-533 Apr 18 j 10:45	21° <del>Υ</del> 06'03	2°10'30	opposition	-527 Jan 05 j 00:19	9° <del>☿</del> 41'48	0°24'49
max. Earth dist.	-533 Apr 18 j 15:54	21° <del>Υ</del> 07'45	9.97072 AU	min. Earth dist.	-527 Jan 04 j 15:10	9° <del>☿</del> 43'40	8.18819 AU
morning rise	-533 May 06 j 10:19	23° <del>Υ</del> 27'01		direct	-527 Mar 14 j 03:32	6° <del>☿</del> 12'23	
	-533 Jul 05 j 13:51	0° <del>♄</del>		evening set	-527 Jun 28 j 10:37	14° <del>☿</del> 19'06	
retrograde	-533 Aug 21 j 13:05	1° <del>♄</del> 56'21					
	-533 Oct 08 j 02:37	30° <del>♄</del> 1'00		conjunction	-527 Jul 16 j 10:39	16° <del>☿</del> 35'27	0°36'22
opposition	-533 Oct 27 j 20:11	28° <del>Υ</del> 25'13	-2°-34'-29	minimum elong	-527 Jul 16 j 10:38	16° <del>☿</del> 35'27	0°36'22
min. Earth dist.	-533 Oct 27 j 15:12	28° <del>Υ</del> 26'15	7.95215 AU	max. Earth dist.	-527 Jul 16 j 21:57	16° <del>☿</del> 39'02	10.24778 AU
direct	-532 Jan 01 j 23:08	24° <del>Υ</del> 56'47		morning rise	-527 Aug 03 j 06:38	18° <del>☿</del> 50'31	
	-532 Mar 19 j 14:57	0° <del>♄</del>		retrograde	-527 Nov 12 j 21:02	26° <del>☿</del> 35'55	
evening set	-532 Apr 14 j 19:37	3° <del>♄</del> 13'05		opposition	-526 Jan 18 j 14:46	23° <del>☿</del> 11'43	1°03'58
				min. Earth dist.	-526 Jan 18 j 06:53	23° <del>☿</del> 13'18	8.30976 AU
conjunction	-532 May 02 j 19:46	5° <del>♄</del> 34'36	-1°-54'-37	direct	-526 Mar 28 j 08:20	19° <del>☿</del> 43'04	
minimum elong	-532 May 02 j 19:49	5° <del>♄</del> 34'37	1°54'38	evening set	-526 Jul 12 j 16:26	27° <del>☿</del> 42'16	
max. Earth dist.	-532 May 03 j 03:04	5° <del>♄</del> 37'01	9.93865 AU				
morning rise	-532 May 20 j 22:22	7° <del>♄</del> 56'51		conjunction	-526 Jul 30 j 11:53	29° <del>☿</del> 55'26	1°06'25
	-532 Jul 26 j 19:08	15° <del>♄</del>		minimum elong	-526 Jul 30 j 11:50	29° <del>☿</del> 55'25	1°06'26
retrograde	-532 Sep 04 j 09:12	16° <del>♄</del> 24'50		max. Earth dist.	-526 Jul 30 j 21:15	29° <del>☿</del> 58'22	10.37539 AU
	-532 Oct 14 j 06:33	15° <del>♄</del> 1'00			-526 Jul 31 j 02:27	0° <del>♄</del>	
opposition	-532 Nov 10 j 07:28	12° <del>♄</del> 53'59	-2°-9'-56	morning rise	-526 Aug 17 j 02:45	2° <del>♄</del> 07'08	
min. Earth dist.	-532 Nov 10 j 01:08	12° <del>♄</del> 55'19	7.93636 AU	retrograde	-526 Nov 25 j 21:15	9° <del>♄</del> 41'54	
direct	-531 Jan 15 j 14:07	9° <del>♄</del> 24'42		opposition	-525 Jan 31 j 22:33	6° <del>♄</del> 19'26	1°38'33
	-531 Apr 08 j 03:02	15° <del>♄</del>		min. Earth dist.	-525 Jan 31 j 16:05	6° <del>♄</del> 20'43	8.44201 AU
evening set	-531 Apr 30 j 03:59	17° <del>♄</del> 43'57		direct	-525 Apr 11 j 07:05	2° <del>♄</del> 51'48	
				evening set	-525 Jul 26 j 11:06	10° <del>♄</del> 42'38	
conjunction	-531 May 18 j 07:16	20° <del>♄</del> 06'17	-1°-31'-27				
minimum elong	-531 May 18 j 07:20	20° <del>♄</del> 06'18	1°31'28	conjunction	-525 Aug 13 j 01:13	12° <del>♄</del> 52'23	1°32'17
max. Earth dist.	-531 May 18 j 16:30	20° <del>♄</del> 09'20	9.94020 AU	minimum elong	-525 Aug 13 j 01:10	12° <del>♄</del> 52'22	1°32'18
morning rise	-531 Jun 05 j 11:43	22° <del>♄</del> 28'56		max. Earth dist.	-525 Aug 13 j 08:11	12° <del>♄</del> 54'32	10.50987 AU
	-531 Aug 19 j 08:15	0° <del>♄</del>		morning rise	-525 Aug 30 j 10:35	15° <del>♄</del> 00'39	
retrograde	-531 Sep 19 j 01:45	0° <del>♄</del> 52'19			-525 Aug 30 j 08:26	15° <del>♄</del>	
	-531 Oct 19 j 22:12	30° <del>♄</del> 1'00		retrograde	-525 Dec 08 j 11:58	22° <del>♄</del> 25'32	
opposition	-531 Nov 24 j 17:38	27° <del>♄</del> 22'12	-1°-37'-6	opposition	-524 Feb 13 j 23:33	19° <del>♄</del> 04'39	2°07'08
min. Earth dist.	-531 Nov 24 j 09:57	27° <del>♄</del> 23'48	7.95429 AU	min. Earth dist.	-524 Feb 13 j 18:08	19° <del>♄</del> 05'42	8.57776 AU
direct	-530 Jan 30 j 07:55	23° <del>♄</del> 52'21		direct	-524 Apr 23 j 23:05	15° <del>♄</del> 38'12	
	-530 Apr 27 j 21:15	0° <del>♄</del>		evening set	-524 Aug 07 j 18:13	23° <del>♄</del> 20'16	
evening set	-530 May 15 j 12:50	2° <del>♄</del> 11'56					
				conjunction	-524 Aug 25 j 02:59	25° <del>♄</del> 26'41	1°53'00
conjunction	-530 Jun 02 j 17:55	4° <del>♄</del> 34'09	-1°-2'-36	minimum elong	-524 Aug 25 j 02:56	25° <del>♄</del> 26'41	1°53'01
minimum elong	-530 Jun 02 j 17:58	4° <del>♄</del> 34'10	1°02'37	max. Earth dist.	-524 Aug 25 j 08:03	25° <del>♄</del> 28'14	10.64432 AU
max. Earth dist.	-530 Jun 03 j 04:42	4° <del>♄</del> 37'41	9.97527 AU	morning rise	-524 Sep 11 j 06:52	27° <del>♄</del> 31'37	
morning rise	-530 Jun 20 j 22:42	6° <del>♄</del> 56'13			-524 Oct 02 j 20:36	0° <del>♄</del>	
retrograde	-530 Oct 03 j 12:23	15° <del>♄</del> 12'13		retrograde	-524 Dec 19 j 21:17	4° <del>♄</del> 47'38	
opposition	-530 Dec 09 j 00:40	11° <del>♄</del> 43'13	0°-58'-27	opposition	-523 Feb 25 j 17:58	1° <del>♄</del> 28'09	2°28'51
min. Earth dist.	-530 Dec 08 j 15:47	11° <del>♄</del> 45'04	8.00475 AU	min. Earth dist.	-523 Feb 25 j 13:43	1° <del>♄</del> 28'58	8.71016 AU
direct	-529 Feb 14 j 01:45	8° <del>♄</del> 13'09			-523 Mar 17 j 10:58	30° <del>♄</del> 1'00	
evening set	-529 May 30 j 18:50	16° <del>♄</del> 30'34		direct	-523 May 07 j 05:03	28° <del>♄</del> 02'59	
					-523 Jun 25 j 21:33	0° <del>♄</del>	
conjunction	-529 Jun 18 j 00:00	18° <del>♄</del> 51'39	0°-30'-11	evening set	-523 Aug 20 j 14:07	5° <del>♄</del> 36'18	
minimum elong	-529 Jun 18 j 00:02	18° <del>♄</del> 51'40	0°30'12				
max. Earth dist.	-529 Jun 18 j 11:48	18° <del>♄</del> 55'29	10.04139 AU	conjunction	-523 Sep 06 j 17:50	7° <del>♄</del> 39'40	2°08'00
morning rise	-529 Jul 06 j 03:21	21° <del>♄</del> 12'10		minimum elong	-523 Sep 06 j 17:48	7° <del>♄</del> 39'39	2°08'00

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 32

Attention, astronomical year style is used: The year -523 in astronomical counting style is the year 524 BCE in historical counting style.

max. Earth dist.	-523 Sep 06 j 21:15	7° $\overline{\text{M}}$ 40'42	10.77209 AU	retrograde	-516 Mar 09 j 20:48	24° $\overline{\text{M}}$ 55'46	
morning rise	-523 Sep 23 j 16:38	9° $\overline{\text{M}}$ 41'35		opposition	-516 May 19 j 13:13	21° $\overline{\text{M}}$ 38'37	1°49'57
retrograde	-523 Dec 31 j 23:14	16° $\overline{\text{M}}$ 49'58		min. Earth dist.	-516 May 19 j 22:07	21° $\overline{\text{M}}$ 36'59	9.13174 AU
opposition	-522 Mar 10 j 06:37	13° $\overline{\text{M}}$ 31'38	2°43'20	direct	-516 Jul 29 j 17:21	18° $\overline{\text{M}}$ 20'03	
min. Earth dist.	-522 Mar 10 j 04:22	13° $\overline{\text{M}}$ 32'04	8.83267 AU	evening set	-516 Nov 07 j 16:40	25° $\overline{\text{M}}$ 17'21	
direct	-522 May 20 j 03:03	10° $\overline{\text{M}}$ 07'46					
evening set	-522 Sep 01 j 23:42	17° $\overline{\text{M}}$ 32'48		conjunction	-516 Nov 24 j 05:15	27° $\overline{\text{M}}$ 12'43	1°19'18
				minimum elong	-516 Nov 24 j 05:17	27° $\overline{\text{M}}$ 12'43	1°19'17
conjunction	-522 Sep 18 j 22:48	19° $\overline{\text{M}}$ 33'28	2°17'05	max. Earth dist.	-516 Nov 23 j 18:45	27° $\overline{\text{M}}$ 09'38	11.11596 AU
minimum elong	-522 Sep 18 j 22:47	19° $\overline{\text{M}}$ 33'28	2°17'04	morning rise	-516 Dec 10 j 17:51	29° $\overline{\text{M}}$ 08'08	
max. Earth dist.	-522 Sep 18 j 23:54	19° $\overline{\text{M}}$ 33'48	10.88698 AU		-516 Dec 18 j 08:58	0° $\overline{\text{Z}}$	
morning rise	-522 Oct 05 j 17:16	21° $\overline{\text{M}}$ 32'50		retrograde	-515 Mar 21 j 14:51	6° $\overline{\text{Z}}$ 06'26	
retrograde	-521 Jan 12 j 19:39	28° $\overline{\text{M}}$ 35'01		opposition	-515 May 31 j 12:26	2° $\overline{\text{Z}}$ 48'26	1°22'29
opposition	-521 Mar 22 j 14:15	25° $\overline{\text{M}}$ 17'39	2°50'32	min. Earth dist.	-515 May 31 j 21:35	2° $\overline{\text{Z}}$ 46'46	9.09525 AU
min. Earth dist.	-521 Mar 22 j 14:52	25° $\overline{\text{M}}$ 17'32	8.93950 AU		-515 Jul 16 j 05:56	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
direct	-521 Jun 01 j 18:20	21° $\overline{\text{M}}$ 55'00		direct	-515 Aug 10 j 09:47	29° $\overline{\text{M}}$ 30'03	
evening set	-521 Sep 14 j 00:10	29° $\overline{\text{M}}$ 12'33			-515 Sep 04 j 04:49	0° $\overline{\text{Z}}$	
	-521 Sep 20 j 18:46	0° $\overline{\text{Z}}$		evening set	-515 Nov 18 j 20:34	6° $\overline{\text{Z}}$ 27'28	
conjunction	-521 Sep 30 j 19:18	1° $\overline{\text{Z}}$ 11'02	2°20'16	conjunction	-515 Dec 05 j 10:01	8° $\overline{\text{Z}}$ 23'38	0°55'16
minimum elong	-521 Sep 30 j 19:17	1° $\overline{\text{Z}}$ 11'02	2°20'15	minimum elong	-515 Dec 05 j 10:03	8° $\overline{\text{Z}}$ 23'39	0°55'15
max. Earth dist.	-521 Sep 30 j 16:59	1° $\overline{\text{Z}}$ 10'21	10.98388 AU	max. Earth dist.	-515 Dec 04 j 23:49	8° $\overline{\text{Z}}$ 20'38	11.06780 AU
morning rise	-521 Oct 17 j 10:32	3° $\overline{\text{Z}}$ 08'23		morning rise	-515 Dec 22 j 00:06	10° $\overline{\text{Z}}$ 20'05	
retrograde	-520 Jan 24 j 11:56	10° $\overline{\text{Z}}$ 05'58		retrograde	-514 Apr 02 j 14:55	17° $\overline{\text{Z}}$ 23'20	
opposition	-520 Apr 02 j 17:53	6° $\overline{\text{Z}}$ 49'16	2°50'40	opposition	-514 Jun 12 j 14:18	14° $\overline{\text{Z}}$ 04'18	0°51'34
min. Earth dist.	-520 Apr 02 j 20:52	6° $\overline{\text{Z}}$ 48'42	9.02620 AU	min. Earth dist.	-514 Jun 12 j 23:05	14° $\overline{\text{Z}}$ 02'40	9.03500 AU
direct	-520 Jun 13 j 02:32	3° $\overline{\text{Z}}$ 27'48		direct	-514 Aug 22 j 03:04	10° $\overline{\text{Z}}$ 45'53	
evening set	-520 Sep 24 j 16:49	10° $\overline{\text{Z}}$ 38'52		evening set	-514 Nov 30 j 03:16	17° $\overline{\text{Z}}$ 44'58	
conjunction	-520 Oct 11 j 08:59	12° $\overline{\text{Z}}$ 35'42	2°17'46	conjunction	-514 Dec 16 j 17:54	19° $\overline{\text{Z}}$ 42'21	0°28'51
minimum elong	-520 Oct 11 j 09:00	12° $\overline{\text{Z}}$ 35'42	2°17'46	minimum elong	-514 Dec 16 j 17:55	19° $\overline{\text{Z}}$ 42'21	0°28'51
max. Earth dist.	-520 Oct 11 j 04:01	12° $\overline{\text{Z}}$ 34'14	11.05928 AU	max. Earth dist.	-514 Dec 16 j 07:36	19° $\overline{\text{Z}}$ 39'18	10.99677 AU
morning rise	-520 Oct 27 j 21:59	14° $\overline{\text{Z}}$ 31'37		morning rise	-513 Jan 02 j 10:02	21° $\overline{\text{Z}}$ 40'16	
retrograde	-519 Feb 04 j 01:38	21° $\overline{\text{Z}}$ 26'14		retrograde	-513 Apr 14 j 20:19	28° $\overline{\text{Z}}$ 50'02	
opposition	-519 Apr 14 j 18:25	18° $\overline{\text{Z}}$ 09'52	2°44'09	opposition	-513 Jun 24 j 19:46	25° $\overline{\text{Z}}$ 29'46	0°18'09
min. Earth dist.	-519 Apr 14 j 22:42	18° $\overline{\text{Z}}$ 09'04	9.08998 AU	min. Earth dist.	-513 Jun 25 j 04:35	25° $\overline{\text{Z}}$ 28'08	8.95309 AU
direct	-519 Jun 25 j 06:36	14° $\overline{\text{Z}}$ 49'26		direct	-513 Sep 02 j 20:20	22° $\overline{\text{Z}}$ 11'06	
evening set	-519 Oct 06 j 03:32	21° $\overline{\text{Z}}$ 55'09		evening set	-513 Dec 11 j 14:50	29° $\overline{\text{Z}}$ 13'31	
					-513 Dec 18 j 04:22	0° $\overline{\text{Z}}$	
conjunction	-519 Oct 22 j 17:44	23° $\overline{\text{Z}}$ 50'52	2°09'57	conjunction	-513 Dec 28 j 06:59	1° $\overline{\text{Z}}$ 12'28	0°00'53
minimum elong	-519 Oct 22 j 17:46	23° $\overline{\text{Z}}$ 50'53	2°09'57	minimum elong	-513 Dec 28 j 06:58	1° $\overline{\text{Z}}$ 12'28	0°00'53
max. Earth dist.	-519 Oct 22 j 11:40	23° $\overline{\text{Z}}$ 49'06	11.11105 AU	behind sun begin	-513 Dec 27 j 23:59	1° $\overline{\text{Z}}$ 10'24	
morning rise	-519 Nov 08 j 05:15	25° $\overline{\text{Z}}$ 45'53		behind sun end	-513 Dec 28 j 13:58	1° $\overline{\text{Z}}$ 14'32	
	-519 Dec 19 j 11:20	0° $\overline{\text{M}}$		max. Earth dist.	-513 Dec 27 j 19:56	1° $\overline{\text{Z}}$ 09'11	10.90535 AU
retrograde	-518 Feb 15 j 16:32	2° $\overline{\text{M}}$ 39'04		desc. node	-512 Jan 08 j 13:05	2° $\overline{\text{Z}}$ 33'07	
	-518 Apr 18 j 05:07	30° $\overline{\text{R}}$ $\overline{\text{Z}}$		morning rise	-512 Jan 14 j 01:41	3° $\overline{\text{Z}}$ 12'14	
opposition	-518 Apr 26 j 17:01	29° $\overline{\text{Z}}$ 22'45	2°31'28	retrograde	-512 Apr 26 j 07:05	10° $\overline{\text{Z}}$ 29'59	
min. Earth dist.	-518 Apr 26 j 22:36	29° $\overline{\text{Z}}$ 21'43	9.12924 AU	opposition	-512 Jul 06 j 05:40	7° $\overline{\text{Z}}$ 08'21	0°-16'-41
direct	-518 Jul 07 j 05:27	26° $\overline{\text{Z}}$ 03'11		min. Earth dist.	-512 Jul 06 j 14:44	7° $\overline{\text{Z}}$ 06'39	8.85243 AU
	-518 Sep 18 j 16:26	0° $\overline{\text{M}}$		direct	-512 Sep 13 j 17:33	3° $\overline{\text{Z}}$ 49'11	
evening set	-518 Oct 17 j 09:59	3° $\overline{\text{M}}$ 04'43		evening set	-512 Dec 22 j 08:48	10° $\overline{\text{Z}}$ 56'37	
conjunction	-518 Nov 02 j 22:58	4° $\overline{\text{M}}$ 59'51	1°57'15	conjunction	-511 Jan 08 j 02:56	12° $\overline{\text{Z}}$ 57'29	0°-27'-42
minimum elong	-518 Nov 02 j 23:00	4° $\overline{\text{M}}$ 59'52	1°57'15	minimum elong	-511 Jan 08 j 02:55	12° $\overline{\text{Z}}$ 57'29	0°27'43
max. Earth dist.	-518 Nov 02 j 15:27	4° $\overline{\text{M}}$ 57'39	11.13800 AU	max. Earth dist.	-511 Jan 07 j 16:35	12° $\overline{\text{Z}}$ 54'22	10.79673 AU
morning rise	-518 Nov 19 j 09:58	6° $\overline{\text{M}}$ 54'30		morning rise	-511 Jan 25 j 00:24	14° $\overline{\text{Z}}$ 59'24	
retrograde	-517 Feb 27 j 05:38	13° $\overline{\text{M}}$ 47'48		retrograde	-511 May 09 j 03:13	22° $\overline{\text{Z}}$ 26'30	
opposition	-517 May 08 j 15:02	10° $\overline{\text{M}}$ 31'12	2°13'11	opposition	-511 Jul 18 j 21:10	19° $\overline{\text{Z}}$ 03'24	0°-51'-42
min. Earth dist.	-517 May 08 j 22:22	10° $\overline{\text{M}}$ 29'52	9.14323 AU	min. Earth dist.	-511 Jul 19 j 05:20	19° $\overline{\text{Z}}$ 01'51	8.73665 AU
direct	-517 Jul 18 j 23:08	7° $\overline{\text{M}}$ 12'16		direct	-511 Sep 25 j 20:54	15° $\overline{\text{Z}}$ 43'35	
evening set	-517 Oct 28 j 13:43	14° $\overline{\text{M}}$ 10'57		evening set	-510 Jan 03 j 10:48	22° $\overline{\text{Z}}$ 57'29	
	-517 Nov 04 j 15:55	15° $\overline{\text{M}}$					
conjunction	-517 Nov 14 j 02:06	16° $\overline{\text{M}}$ 05'58	1°40'10	conjunction	-510 Jan 20 j 07:19	25° $\overline{\text{Z}}$ 00'36	0°-55'-41
minimum elong	-517 Nov 14 j 02:09	16° $\overline{\text{M}}$ 05'59	1°40'10	minimum elong	-510 Jan 20 j 07:17	25° $\overline{\text{Z}}$ 00'35	0°55'42
max. Earth dist.	-517 Nov 13 j 16:35	16° $\overline{\text{M}}$ 03'11	11.13961 AU	max. Earth dist.	-510 Jan 19 j 22:50	24° $\overline{\text{Z}}$ 57'59	10.67495 AU
morning rise	-517 Nov 30 j 13:36	18° $\overline{\text{M}}$ 00'46		morning rise	-510 Feb 06 j 07:37	27° $\overline{\text{Z}}$ 04'55	

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 33

Attention, astronomical year style is used: The year -510 in astronomical counting style is the year 511 BCE in historical counting style.

	-510 Mar 03 j 22:03	0°♊		minimum elong	-504 Apr 11 j 04:55	15°♊05'33	2°14'43
retrograde	-510 May 22 j 08:13	4°♊42'28		max. Earth dist.	-504 Apr 11 j 10:55	15°♊07'31	10.00372 AU
opposition	-510 Jul 31 j 19:01	1°♊17'49	-1°-25'-25	morning rise	-504 Apr 29 j 02:47	17°♊25'38	
min. Earth dist.	-510 Aug 01 j 01:19	1°♊16'37	8.61041 AU	retrograde	-504 Aug 14 j 10:06	25°♊54'25	
	-510 Aug 18 j 02:52	30°♊♌		opposition	-504 Oct 20 j 22:46	22°♊23'51	-2°-41'-54
direct	-510 Oct 08 j 04:18	27°♊57'11		min. Earth dist.	-504 Oct 20 j 17:10	22°♊25'00	7.98045 AU
	-510 Nov 26 j 04:12	0°♊		direct	-504 Dec 26 j 01:23	18°♊56'31	
evening set	-509 Jan 15 j 22:40	5°♊18'58		evening set	-503 Apr 08 j 13:20	27°♊10'25	
conjunction	-509 Feb 01 j 21:51	7°♊24'33	-1°-21'-48	conjunction	-503 Apr 26 j 11:49	29°♊31'10	-2°-2'-21
minimum elong	-509 Feb 01 j 21:48	7°♊24'32	1°21'49	minimum elong	-503 Apr 26 j 11:52	29°♊31'11	2°02'21
max. Earth dist.	-509 Feb 01 j 15:07	7°♊22'28	10.54519 AU	max. Earth dist.	-503 Apr 26 j 20:21	29°♊33'59	9.96139 AU
morning rise	-509 Feb 19 j 01:16	9°♊31'31			-503 Apr 30 j 03:24	0°♋	
	-509 Apr 11 j 22:18	15°♊		morning rise	-503 May 14 j 12:57	1°♋52'48	
retrograde	-509 Jun 04 j 22:14	17°♊20'07		retrograde	-503 Aug 29 j 07:58	10°♋21'31	
	-509 Jul 30 j 14:23	15°♊♋		opposition	-503 Nov 04 j 09:55	6°♋51'03	-2°-21'-31
opposition	-509 Aug 13 j 23:39	13°♊53'58	-1°-56'-7	min. Earth dist.	-503 Nov 04 j 02:45	6°♋52'32	7.95332 AU
min. Earth dist.	-509 Aug 14 j 03:58	13°♊53'07	8.47927 AU	direct	-502 Jan 09 j 13:19	3°♋22'46	
direct	-509 Oct 20 j 18:59	10°♊32'21		evening set	-502 Apr 23 j 20:40	11°♋40'30	
	-508 Jan 02 j 17:40	15°♊					
evening set	-508 Jan 28 j 21:30	18°♊03'08		conjunction	-502 May 11 j 22:43	14°♋02'25	-1°-42'-12
				minimum elong	-502 May 11 j 22:47	14°♋02'26	1°42'12
conjunction	-508 Feb 14 j 23:37	20°♊11'23	-1°-44'-37	max. Earth dist.	-502 May 12 j 08:41	14°♋05'42	9.95025 AU
minimum elong	-508 Feb 14 j 23:34	20°♊11'22	1°44'39		-502 May 19 j 05:49	15°♋	
max. Earth dist.	-508 Feb 14 j 18:14	20°♊09'42	10.41351 AU	morning rise	-502 May 30 j 02:16	16°♋24'49	
morning rise	-508 Mar 03 j 06:31	22°♊21'10		retrograde	-502 Sep 13 j 03:37	24°♋50'09	
	-508 May 28 j 17:13	0°♋		opposition	-502 Nov 18 j 20:43	21°♋20'14	-1°-52'-3
retrograde	-508 Jun 17 j 21:37	0°♋20'51		min. Earth dist.	-502 Nov 18 j 12:57	21°♋21'51	7.95719 AU
	-508 Jul 08 j 02:39	30°♋♌		direct	-501 Jan 24 j 05:54	17°♋51'13	
opposition	-508 Aug 26 j 11:29	26°♋53'18	-2°-21'-57	evening set	-501 May 09 j 05:50	26°♋10'28	
min. Earth dist.	-508 Aug 26 j 14:17	26°♋52'44	8.34956 AU				
direct	-508 Nov 01 j 17:17	23°♋30'34		conjunction	-501 May 27 j 10:14	28°♋32'41	-1°-15'-35
	-507 Jan 31 j 16:41	0°♋		minimum elong	-501 May 27 j 10:18	28°♋32'43	1°15'36
evening set	-507 Feb 10 j 07:54	1°♋11'04		max. Earth dist.	-501 May 27 j 20:35	28°♋36'05	9.97002 AU
					-501 Jun 07 j 12:59	0°♌	
conjunction	-507 Feb 27 j 13:22	3°♋22'06	-2°-2'-38	morning rise	-501 Jun 14 j 14:51	0°♌54'58	
minimum elong	-507 Feb 27 j 13:20	3°♋22'05	2°02'40	retrograde	-501 Sep 27 j 17:25	9°♌14'09	
max. Earth dist.	-507 Feb 27 j 09:57	3°♋21'00	10.28657 AU	opposition	-501 Dec 03 j 05:22	5°♌45'12	-1°-15'-37
morning rise	-507 Mar 16 j 23:55	5°♋34'43		min. Earth dist.	-501 Dec 02 j 21:39	5°♌46'48	7.99163 AU
retrograde	-507 Jul 02 j 05:18	13°♋44'48		direct	-500 Feb 08 j 00:03	2°♌15'45	
opposition	-507 Sep 09 j 06:14	10°♋16'04	-2°-40'-59	evening set	-500 May 23 j 13:34	10°♌34'07	
min. Earth dist.	-507 Sep 09 j 07:23	10°♋15'50	8.22817 AU				
direct	-507 Nov 15 j 00:10	6°♋52'09		conjunction	-500 Jun 10 j 18:44	12°♌55'41	0°-44'-27
evening set	-506 Feb 24 j 06:04	14°♋42'31		minimum elong	-500 Jun 10 j 18:46	12°♌55'42	0°44'27
				max. Earth dist.	-500 Jun 11 j 04:58	12°♌59'01	10.01997 AU
conjunction	-506 Mar 13 j 15:28	16°♋56'20	-2°-14'-24	morning rise	-500 Jun 28 j 22:50	15°♌16'53	
minimum elong	-506 Mar 13 j 15:26	16°♋56'20	2°14'26	retrograde	-500 Oct 10 j 23:57	23°♌27'42	
max. Earth dist.	-506 Mar 13 j 14:50	16°♋56'08	10.17153 AU	opposition	-500 Dec 16 j 10:24	20°♌00'00	0°-34'-56
morning rise	-506 Mar 31 j 05:50	19°♋11'45		min. Earth dist.	-500 Dec 16 j 02:39	20°♌01'36	8.05550 AU
retrograde	-506 Jul 16 j 18:37	27°♋30'42		direct	-499 Feb 21 j 17:29	16°♌30'26	
opposition	-506 Sep 23 j 07:13	24°♋01'01	-2°-51'-26	evening set	-499 Jun 07 j 16:39	24°♌45'29	
min. Earth dist.	-506 Sep 23 j 06:23	24°♋01'11	8.12214 AU				
direct	-506 Nov 28 j 17:12	20°♋35'54		conjunction	-499 Jun 25 j 20:52	27°♌05'28	0°-11'-2
evening set	-505 Mar 10 j 15:27	28°♋35'36		minimum elong	-499 Jun 25 j 20:53	27°♌05'29	0°11'03
	-505 Mar 21 j 13:16	0°♌		behind sun begin	-499 Jun 25 j 15:27	27°♌03'45	
				behind sun end	-499 Jun 26 j 02:18	27°♌07'13	
conjunction	-505 Mar 28 j 05:13	0°♌52'06	-2°-18'-41	max. Earth dist.	-499 Jun 26 j 06:52	27°♌08'41	10.09784 AU
minimum elong	-505 Mar 28 j 05:13	0°♌52'06	2°18'42	morning rise	-499 Jul 13 j 22:48	29°♌24'41	
max. Earth dist.	-505 Mar 28 j 08:01	0°♌53'01	10.07526 AU		-499 Jul 18 j 15:14	0°♍	
morning rise	-505 Apr 14 j 23:27	3°♌10'04		retrograde	-499 Oct 24 j 21:55	7°♍25'37	
retrograde	-505 Jul 31 j 12:59	11°♌35'29		asc. node	-499 Oct 27 j 17:22	7°♍25'11	
opposition	-505 Oct 07 j 13:17	8°♌05'10	-2°-51'-58	opposition	-499 Dec 30 j 10:14	3°♍59'19	0°07'02
min. Earth dist.	-505 Oct 07 j 10:02	8°♌05'50	8.03783 AU	min. Earth dist.	-499 Dec 30 j 02:23	4°♍00'56	8.14539 AU
direct	-505 Dec 12 j 18:12	4°♌38'55		direct	-498 Mar 08 j 07:22	0°♍29'55	
evening set	-504 Mar 24 j 10:39	12°♌46'39		evening set	-498 Jun 22 j 12:42	8°♍39'37	
conjunction	-504 Apr 11 j 04:53	15°♌05'33	-2°-14'-43	conjunction	-498 Jul 10 j 14:18	10°♍57'13	0°22'28

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 34

Attention, astronomical year style is used: The year -498 in astronomical counting style is the year 499 BCE in historical counting style.

minimum elong	-498 Jul 10 j 14:17	10° $\mathring{5}$ 57'13	0°22'29	minimum elong	-492 Sep 25 j 02:54	26° $\mathring{M}$ 26'17	2°19'40
max. Earth dist.	-498 Jul 10 j 23:48	11° $\mathring{5}$ 00'15	10.19897 AU	max. Earth dist.	-492 Sep 25 j 02:39	26° $\mathring{M}$ 26'13	10.93206 AU
morning rise	-498 Jul 28 j 12:30	13° $\mathring{5}$ 13'41		morning rise	-492 Oct 11 j 19:34	28° $\mathring{M}$ 24'32	
retrograde	-498 Nov 07 j 11:49	21° $\mathring{5}$ 03'57			-492 Oct 25 j 20:01	0° $\mathring{A}$	
opposition	-497 Jan 13 j 03:47	17° $\mathring{5}$ 39'09	0°47'34	retrograde	-491 Jan 18 j 20:39	5° $\mathring{A}$ 24'05	
min. Earth dist.	-497 Jan 12 j 19:59	17° $\mathring{5}$ 40'44	8.25584 AU	opposition	-491 Mar 28 j 21:32	2° $\mathring{A}$ 06'36	2°51'35
direct	-497 Mar 22 j 15:53	14° $\mathring{5}$ 10'14		min. Earth dist.	-491 Mar 28 j 22:02	2° $\mathring{A}$ 06'30	8.98029 AU
evening set	-497 Jul 06 j 23:20	22° $\mathring{5}$ 12'58			-491 Apr 28 j 09:02	30° $\mathring{R}$ $\mathring{M}$	
				direct	-491 Jun 08 j 05:34	28° $\mathring{M}$ 44'10	
conjunction	-497 Jul 24 j 20:58	24° $\mathring{5}$ 27'36	0°53'56		-491 Jul 18 j 09:24	0° $\mathring{A}$	
minimum elong	-497 Jul 24 j 20:55	24° $\mathring{5}$ 27'35	0°53'57	evening set	-491 Sep 20 j 01:42	5° $\mathring{A}$ 57'59	
max. Earth dist.	-497 Jul 25 j 05:51	24° $\mathring{5}$ 30'24	10.31721 AU				
morning rise	-497 Aug 11 j 14:14	26° $\mathring{5}$ 40'51		conjunction	-491 Oct 06 j 19:17	7° $\mathring{A}$ 55'33	2°19'36
	-497 Sep 09 j 02:47	0° $\mathring{Q}$		minimum elong	-491 Oct 06 j 19:18	7° $\mathring{A}$ 55'33	2°19'36
retrograde	-497 Nov 20 j 16:30	4° $\mathring{Q}$ 20'23		max. Earth dist.	-491 Oct 06 j 17:24	7° $\mathring{A}$ 54'59	11.02034 AU
opposition	-496 Jan 26 j 14:45	0° $\mathring{Q}$ 57'06	1°24'22	morning rise	-491 Oct 23 j 09:05	9° $\mathring{A}$ 52'04	
min. Earth dist.	-496 Jan 26 j 07:27	0° $\mathring{Q}$ 58'33	8.38024 AU	retrograde	-490 Jan 30 j 10:53	16° $\mathring{A}$ 47'42	
	-496 Feb 07 j 16:34	30° $\mathring{R}$ $\mathring{S}$		opposition	-490 Apr 09 j 23:01	13° $\mathring{A}$ 30'48	2°47'53
direct	-496 Apr 04 j 17:51	27° $\mathring{5}$ 28'55		min. Earth dist.	-490 Apr 10 j 01:40	13° $\mathring{A}$ 30'19	9.05852 AU
	-496 May 30 j 11:19	0° $\mathring{Q}$		direct	-490 Jun 20 j 10:08	10° $\mathring{A}$ 09'34	
evening set	-496 Jul 19 j 22:56	5° $\mathring{Q}$ 23'35		evening set	-490 Oct 01 j 14:30	17° $\mathring{A}$ 17'21	
conjunction	-496 Aug 06 j 15:40	7° $\mathring{Q}$ 34'55	1°21'46	conjunction	-490 Oct 18 j 05:28	19° $\mathring{A}$ 13'29	2°14'03
minimum elong	-496 Aug 06 j 15:36	7° $\mathring{Q}$ 34'54	1°21'47	minimum elong	-490 Oct 18 j 05:29	19° $\mathring{A}$ 13'29	2°14'03
max. Earth dist.	-496 Aug 06 j 23:43	7° $\mathring{Q}$ 37'25	10.44570 AU	max. Earth dist.	-490 Oct 18 j 01:06	19° $\mathring{A}$ 12'12	11.08766 AU
morning rise	-496 Aug 24 j 03:25	9° $\mathring{Q}$ 44'44		morning rise	-490 Nov 03 j 17:31	21° $\mathring{A}$ 08'48	
	-496 Oct 12 j 14:39	15° $\mathring{Q}$		retrograde	-489 Feb 10 j 23:59	28° $\mathring{A}$ 02'08	
retrograde	-496 Dec 02 j 12:21	17° $\mathring{Q}$ 14'03		opposition	-489 Apr 21 j 22:00	24° $\mathring{A}$ 45'34	2°37'47
	-495 Jan 24 j 04:13	15° $\mathring{R}$ $\mathring{Q}$		min. Earth dist.	-489 Apr 22 j 02:39	24° $\mathring{A}$ 44'42	9.11441 AU
opposition	-495 Feb 07 j 18:48	13° $\mathring{Q}$ 52'14	1°55'42	direct	-489 Jul 02 j 10:23	21° $\mathring{A}$ 25'24	
min. Earth dist.	-495 Feb 07 j 13:05	13° $\mathring{Q}$ 53'22	8.51162 AU	evening set	-489 Oct 12 j 22:06	28° $\mathring{A}$ 28'18	
direct	-495 Apr 18 j 11:54	10° $\mathring{Q}$ 24'59			-489 Oct 26 j 02:49	0° $\mathring{M}$	
	-495 Jul 05 j 11:09	15° $\mathring{Q}$					
evening set	-495 Aug 02 j 11:15	18° $\mathring{Q}$ 11'02		conjunction	-489 Oct 29 j 11:24	0° $\mathring{M}$ 23'33	2°03'24
				minimum elong	-489 Oct 29 j 11:26	0° $\mathring{M}$ 23'34	2°03'25
conjunction	-495 Aug 19 j 22:34	20° $\mathring{Q}$ 19'00	1°44'49	max. Earth dist.	-489 Oct 29 j 05:05	0° $\mathring{M}$ 21'42	11.13182 AU
minimum elong	-495 Aug 19 j 22:31	20° $\mathring{Q}$ 18'59	1°44'49	morning rise	-489 Nov 14 j 22:40	2° $\mathring{M}$ 18'14	
max. Earth dist.	-495 Aug 20 j 04:36	20° $\mathring{Q}$ 20'52	10.57750 AU	retrograde	-488 Feb 22 j 11:47	9° $\mathring{M}$ 10'49	
morning rise	-495 Sep 06 j 04:46	22° $\mathring{Q}$ 25'26		opposition	-488 May 02 j 19:27	5° $\mathring{M}$ 54'16	2°21'51
retrograde	-495 Dec 15 j 00:28	29° $\mathring{Q}$ 45'22		min. Earth dist.	-488 May 03 j 00:57	5° $\mathring{M}$ 53'16	9.14609 AU
opposition	-494 Feb 20 j 16:00	26° $\mathring{Q}$ 24'56	2°20'29	direct	-488 Jul 13 j 06:08	2° $\mathring{M}$ 35'03	
min. Earth dist.	-494 Feb 20 j 12:20	26° $\mathring{Q}$ 25'39	8.64313 AU	evening set	-488 Oct 23 j 02:10	9° $\mathring{M}$ 34'21	
direct	-494 May 01 j 21:12	22° $\mathring{Q}$ 58'45					
	-494 Aug 10 j 09:41	0° $\mathring{M}$		conjunction	-488 Nov 08 j 14:46	11° $\mathring{M}$ 29'14	1°48'10
evening set	-494 Aug 15 j 12:09	0° $\mathring{M}$ 36'05		minimum elong	-488 Nov 08 j 14:49	11° $\mathring{M}$ 29'14	1°48'10
				max. Earth dist.	-488 Nov 08 j 07:53	11° $\mathring{M}$ 27'13	11.15122 AU
conjunction	-494 Sep 01 j 18:02	2° $\mathring{M}$ 40'52	2°02'20	morning rise	-488 Nov 25 j 01:57	13° $\mathring{M}$ 23'46	
minimum elong	-494 Sep 01 j 18:00	2° $\mathring{M}$ 40'51	2°02'20		-488 Dec 09 j 11:52	15° $\mathring{M}$	
max. Earth dist.	-494 Sep 01 j 21:20	2° $\mathring{M}$ 41'52	10.70617 AU	retrograde	-487 Mar 05 j 03:29	20° $\mathring{M}$ 17'11	
morning rise	-494 Sep 18 j 19:05	4° $\mathring{M}$ 44'09		opposition	-487 May 14 j 16:36	17° $\mathring{M}$ 00'26	2°00'41
retrograde	-494 Dec 27 j 03:12	11° $\mathring{M}$ 55'54		min. Earth dist.	-487 May 14 j 22:44	16° $\mathring{M}$ 59'19	9.15239 AU
opposition	-493 Mar 05 j 07:08	8° $\mathring{M}$ 36'39	2°38'07		-487 Jun 13 j 04:36	15° $\mathring{R}$ $\mathring{M}$	
min. Earth dist.	-493 Mar 05 j 05:10	8° $\mathring{M}$ 37'01	8.76854 AU	direct	-487 Jul 25 j 00:28	13° $\mathring{M}$ 41'56	
direct	-493 May 15 j 00:09	5° $\mathring{M}$ 11'40			-487 Sep 03 j 16:23	15° $\mathring{M}$	
evening set	-493 Aug 28 j 01:59	12° $\mathring{M}$ 40'31		evening set	-487 Nov 03 j 04:42	20° $\mathring{M}$ 39'02	
conjunction	-493 Sep 14 j 02:57	14° $\mathring{M}$ 42'24	2°13'58	conjunction	-487 Nov 19 j 17:11	22° $\mathring{M}$ 34'01	1°28'54
minimum elong	-493 Sep 14 j 02:55	14° $\mathring{M}$ 42'24	2°13'58	minimum elong	-487 Nov 19 j 17:13	22° $\mathring{M}$ 34'02	1°28'53
max. Earth dist.	-493 Sep 14 j 03:55	14° $\mathring{M}$ 42'41	10.82598 AU	max. Earth dist.	-487 Nov 19 j 09:29	22° $\mathring{M}$ 31'46	11.14512 AU
morning rise	-493 Sep 30 j 23:27	16° $\mathring{M}$ 42'56		morning rise	-487 Dec 06 j 04:59	24° $\mathring{M}$ 28'53	
retrograde	-492 Jan 08 j 01:34	23° $\mathring{M}$ 47'53			-486 Feb 02 j 13:36	0° $\mathring{Z}$	
opposition	-492 Mar 16 j 16:43	20° $\mathring{M}$ 29'36	2°48'27	retrograde	-486 Mar 16 j 19:53	1° $\mathring{Z}$ 24'44	
min. Earth dist.	-492 Mar 16 j 15:42	20° $\mathring{M}$ 29'48	8.88243 AU		-486 Apr 29 j 07:44	30° $\mathring{R}$ $\mathring{M}$	
direct	-492 May 26 j 19:35	17° $\mathring{M}$ 05'54		opposition	-486 May 26 j 14:43	28° $\mathring{M}$ 07'30	1°35'00
evening set	-492 Sep 08 j 06:01	24° $\mathring{M}$ 26'49		min. Earth dist.	-486 May 26 j 22:03	28° $\mathring{M}$ 06'10	9.13318 AU
				direct	-486 Aug 05 j 14:43	24° $\mathring{M}$ 49'31	
conjunction	-492 Sep 25 j 02:55	26° $\mathring{M}$ 26'17	2°19'41		-486 Oct 29 j 10:50	0° $\mathring{Z}$	

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 35

Attention, astronomical year style is used: The year -486 in astronomical counting style is the year 487 BCE in historical counting style.

evening set	-486 Nov 14 j 07:32	1°♂45'53		min. Earth dist.	-480 Aug 07 j 14:12	8°♂18'30	8.56789 AU
				direct	-480 Oct 14 j 09:34	4°♂59'14	
conjunction	-486 Nov 30 j 20:20	3°♂41'23	1°06'12	evening set	-479 Jan 22 j 07:10	12°♂24'25	
minimum elong	-486 Nov 30 j 20:22	3°♂41'24	1°06'11				
max. Earth dist.	-486 Nov 30 j 10:55	3°♂38'37	11.11386 AU	conjunction	-479 Feb 08 j 07:40	14°♂31'01	-1°-34'-37
morning rise	-486 Dec 17 j 09:36	5°♂37'05		minimum elong	-479 Feb 08 j 07:37	14°♂31'00	1°34'39
retrograde	-485 Mar 28 j 15:31	12°♂36'58		max. Earth dist.	-479 Feb 08 j 00:11	14°♂28'41	10.49986 AU
opposition	-485 Jun 07 j 14:49	9°♂18'59	1°05'34		-479 Feb 12 j 04:29	15°♂	
min. Earth dist.	-485 Jun 07 j 23:20	9°♂17'25	9.08924 AU	morning rise	-479 Feb 25 j 12:45	16°♂39'05	
direct	-485 Aug 17 j 06:33	6°♂01'11		retrograde	-479 Jun 11 j 17:47	24°♂32'13	
evening set	-485 Nov 25 j 12:11	12°♂58'22		opposition	-479 Aug 20 j 14:34	21°♂05'46	-2°-10'-40
				min. Earth dist.	-479 Aug 20 j 19:46	21°♂04'45	8.43197 AU
conjunction	-485 Dec 12 j 02:00	14°♂54'52	0°40'48	direct	-479 Oct 27 j 04:15	17°♂43'54	
minimum elong	-485 Dec 12 j 02:01	14°♂54'52	0°40'47	evening set	-478 Feb 04 j 10:56	25°♂18'33	
max. Earth dist.	-485 Dec 11 j 16:01	14°♂51'55	11.05837 AU				
morning rise	-485 Dec 28 j 17:10	16°♂51'46		conjunction	-478 Feb 21 j 14:44	27°♂27'56	-1°-54'-59
retrograde	-484 Apr 08 j 17:08	23°♂57'16		minimum elong	-478 Feb 21 j 14:41	27°♂27'55	1°55'00
opposition	-484 Jun 18 j 17:46	20°♂38'16	0°33'14	max. Earth dist.	-478 Feb 21 j 09:47	27°♂26'22	10.36460 AU
min. Earth dist.	-484 Jun 19 j 02:26	20°♂36'40	9.02177 AU	morning rise	-478 Mar 10 j 23:15	29°♂38'53	
direct	-484 Aug 28 j 00:11	17°♂20'25			-478 Mar 13 j 19:44	0°♂	
evening set	-484 Dec 05 j 20:42	24°♂20'00		retrograde	-478 Jun 25 j 21:02	7°♂42'59	
				opposition	-478 Sep 03 j 05:11	4°♂14'59	-2°-33'-3
conjunction	-484 Dec 22 j 12:02	26°♂17'51	0°13'29	min. Earth dist.	-478 Sep 03 j 07:56	4°♂14'26	8.30021 AU
minimum elong	-484 Dec 22 j 12:02	26°♂17'51	0°13'29	direct	-478 Nov 09 j 05:53	0°♂51'47	
behind sun begin	-484 Dec 22 j 08:00	26°♂16'40		evening set	-477 Feb 18 j 02:39	8°♂36'23	
behind sun end	-484 Dec 22 j 16:04	26°♂19'02					
max. Earth dist.	-484 Dec 22 j 02:33	26°♂15'02	10.98007 AU	conjunction	-477 Mar 07 j 10:08	10°♂48'38	-2°-9'-48
morning rise	-483 Jan 08 j 05:18	28°♂16'21		minimum elong	-477 Mar 07 j 10:06	10°♂48'37	2°09'49
	-483 Jan 23 j 11:27	0°♂		max. Earth dist.	-477 Mar 07 j 07:30	10°♂47'47	10.23709 AU
retrograde	-483 Apr 21 j 00:47	5°♂28'58		morning rise	-477 Mar 24 j 22:24	13°♂02'28	
desc. node	-483 Jun 20 j 03:52	2°♂56'43		retrograde	-477 Jul 10 j 07:03	21°♂16'26	
opposition	-483 Jul 01 j 00:35	2°♂08'43	0°00'-59	opposition	-477 Sep 17 j 02:16	17°♂47'07	-2°-47'-43
min. Earth dist.	-483 Jul 01 j 08:37	2°♂07'13	8.93261 AU	min. Earth dist.	-477 Sep 17 j 02:54	17°♂46'59	8.17979 AU
	-483 Aug 01 j 10:02	30°♂		direct	-477 Nov 22 j 16:53	14°♂22'30	
direct	-483 Sep 08 j 19:36	28°♂50'33		evening set	-476 Mar 03 j 05:57	22°♂16'59	
	-483 Oct 16 j 04:14	0°♂					
evening set	-483 Dec 17 j 10:49	5°♂54'10		conjunction	-476 Mar 20 j 17:28	24°♂32'03	-2°-17'-43
				minimum elong	-476 Mar 20 j 17:28	24°♂32'03	2°17'44
conjunction	-482 Jan 03 j 03:55	7°♂53'44	0°-14'-53	max. Earth dist.	-476 Mar 20 j 16:57	24°♂31'53	10.12455 AU
minimum elong	-482 Jan 03 j 03:54	7°♂53'44	0°14'54	morning rise	-476 Apr 07 j 09:43	26°♂48'39	
behind sun begin	-482 Jan 03 j 01:01	7°♂52'53			-476 May 03 j 19:15	0°♂	
behind sun end	-482 Jan 03 j 06:46	7°♂54'35		retrograde	-476 Jul 23 j 23:01	5°♂10'35	
max. Earth dist.	-482 Jan 02 j 18:17	7°♂50'52	10.88117 AU	opposition	-476 Sep 30 j 05:20	1°♂40'17	-2°-53'-6
morning rise	-482 Jan 19 j 23:42	9°♂54'11		min. Earth dist.	-476 Sep 30 j 04:10	1°♂40'31	8.07763 AU
retrograde	-482 May 03 j 17:13	17°♂15'23			-476 Oct 21 j 14:14	30°♂	
opposition	-482 Jul 13 j 12:37	13°♂53'43	0°-35'-57	direct	-476 Dec 05 j 12:28	28°♂14'17	
min. Earth dist.	-482 Jul 13 j 20:30	13°♂52'14	8.82439 AU		-475 Jan 18 j 10:39	0°♂	
direct	-482 Sep 20 j 18:32	10°♂34'58		evening set	-475 Mar 17 j 19:39	6°♂17'47	
evening set	-482 Dec 29 j 08:10	17°♂44'15					
				conjunction	-475 Apr 04 j 11:32	8°♂35'29	-2°-17'-44
conjunction	-481 Jan 15 j 03:16	19°♂45'53	0°-43'-9	minimum elong	-475 Apr 04 j 11:33	8°♂35'29	2°17'45
minimum elong	-481 Jan 15 j 03:15	19°♂45'52	0°43'10	max. Earth dist.	-475 Apr 04 j 13:28	8°♂36'07	10.03372 AU
max. Earth dist.	-481 Jan 14 j 17:08	19°♂42'48	10.76478 AU	morning rise	-475 Apr 22 j 07:44	10°♂54'33	
morning rise	-481 Feb 01 j 02:02	21°♂48'38		retrograde	-475 Aug 07 j 18:58	19°♂21'47	
retrograde	-481 May 16 j 16:47	29°♂19'43		opposition	-475 Oct 14 j 12:54	15°♂50'53	-2°-48'-8
opposition	-481 Jul 26 j 06:37	25°♂56'30	-1°-10'-18	min. Earth dist.	-475 Oct 14 j 10:08	15°♂51'28	8.00002 AU
min. Earth dist.	-481 Jul 26 j 14:28	25°♂55'01	8.70093 AU	direct	-475 Dec 19 j 15:54	12°♂23'36	
direct	-481 Oct 02 j 21:42	22°♂36'55		evening set	-474 Apr 01 j 18:20	20°♂34'37	
evening set	-480 Jan 10 j 14:33	29°♂53'31					
	-480 Jan 11 j 12:06	0°♂		conjunction	-474 Apr 19 j 14:42	22°♂54'34	-2°-9'-20
				minimum elong	-474 Apr 19 j 14:44	22°♂54'35	2°09'21
conjunction	-480 Jan 27 j 12:08	1°♂57'29	-1°-10'-11	max. Earth dist.	-474 Apr 19 j 19:24	22°♂56'07	9.97039 AU
minimum elong	-480 Jan 27 j 12:05	1°♂57'29	1°10'12	morning rise	-474 May 07 j 14:34	25°♂15'38	
max. Earth dist.	-480 Jan 27 j 02:28	1°♂54'31	10.63558 AU		-474 Jun 16 j 20:02	0°♂	
morning rise	-480 Feb 13 j 14:01	4°♂02'49		retrograde	-474 Aug 22 j 16:28	3°♂44'52	
retrograde	-480 May 29 j 00:07	11°♂44'42		opposition	-474 Oct 28 j 23:09	0°♂13'49	-2°-32'-35
opposition	-480 Aug 07 j 07:02	8°♂19'53	-1°-42'-27	min. Earth dist.	-474 Oct 28 j 18:36	0°♂14'45	7.95193 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 36

Attention, astronomical year style is used: The year -474 in astronomical counting style is the year 475 BCE in historical counting style.

	-474 Oct 31 j 17:37	30° $\mathbb{R}$ $\Upsilon$		conjunction	-468 Jul 17 j 14:04	18° $\mathbb{S}$ 23'12	0°39'21
direct	-473 Jan 03 j 02:16	26° $\Upsilon$ 45'23		minimum elong	-468 Jul 17 j 14:03	18° $\mathbb{S}$ 23'11	0°39'22
	-473 Mar 04 j 19:38	0° $\mathbb{S}$		max. Earth dist.	-468 Jul 18 j 00:24	18° $\mathbb{S}$ 26'28	10.24924 AU
evening set	-473 Apr 16 j 23:33	5° $\mathbb{S}$ 01'52		morning rise	-468 Aug 04 j 09:51	20° $\mathbb{S}$ 38'10	
				retrograde	-468 Nov 13 j 22:36	28° $\mathbb{S}$ 23'18	
conjunction	-473 May 05 j 00:00	7° $\mathbb{S}$ 23'27	-1°-52'-46	opposition	-467 Jan 19 j 17:23	24° $\mathbb{S}$ 59'07	1°07'30
minimum elong	-473 May 05 j 00:04	7° $\mathbb{S}$ 23'28	1°52'47	min. Earth dist.	-467 Jan 19 j 09:55	25° $\mathbb{S}$ 00'38	8.31136 AU
max. Earth dist.	-473 May 05 j 07:18	7° $\mathbb{S}$ 25'51	9.93865 AU	direct	-467 Mar 29 j 12:42	21° $\mathbb{S}$ 30'25	
morning rise	-473 May 23 j 02:47	9° $\mathbb{S}$ 45'46		evening set	-467 Jul 13 j 19:45	29° $\mathbb{S}$ 29'33	
	-473 Jul 07 j 06:07	15° $\mathbb{S}$			-467 Jul 17 j 22:32	0° $\mathbb{Q}$	
retrograde	-473 Sep 06 j 12:36	18° $\mathbb{S}$ 13'35					
	-473 Nov 08 j 23:47	15° $\mathbb{R}$ $\mathbb{S}$		conjunction	-467 Jul 31 j 14:50	1° $\mathbb{Q}$ 42'35	1°09'06
opposition	-473 Nov 12 j 10:20	14° $\mathbb{S}$ 42'48	-2°-7'-14	minimum elong	-467 Jul 31 j 14:47	1° $\mathbb{Q}$ 42'34	1°09'08
min. Earth dist.	-473 Nov 12 j 03:57	14° $\mathbb{S}$ 44'08	7.93650 AU	max. Earth dist.	-467 Jul 31 j 23:25	1° $\mathbb{Q}$ 45'17	10.37700 AU
direct	-472 Jan 17 j 18:10	11° $\mathbb{S}$ 13'31		morning rise	-467 Aug 18 j 05:30	3° $\mathbb{Q}$ 54'12	
	-472 Mar 23 j 22:24	15° $\mathbb{S}$		retrograde	-467 Nov 26 j 22:10	11° $\mathbb{Q}$ 28'47	
evening set	-472 May 01 j 08:08	19° $\mathbb{S}$ 32'55		opposition	-466 Feb 02 j 01:01	8° $\mathbb{Q}$ 06'18	1°41'38
				min. Earth dist.	-466 Feb 01 j 18:14	8° $\mathbb{Q}$ 07'39	8.44369 AU
conjunction	-472 May 19 j 11:41	21° $\mathbb{S}$ 55'18	-1°-29'-1	direct	-466 Apr 12 j 11:32	4° $\mathbb{Q}$ 38'38	
minimum elong	-472 May 19 j 11:44	21° $\mathbb{S}$ 55'19	1°29'01	evening set	-466 Jul 27 j 14:05	12° $\mathbb{Q}$ 29'22	
max. Earth dist.	-472 May 19 j 21:17	21° $\mathbb{S}$ 58'27	9.94055 AU				
morning rise	-472 Jun 06 j 16:08	24° $\mathbb{S}$ 17'58		conjunction	-466 Aug 14 j 03:58	14° $\mathbb{Q}$ 39'01	1°34'33
	-472 Jul 26 j 21:52	0° $\mathbb{I}$		minimum elong	-466 Aug 14 j 03:55	14° $\mathbb{Q}$ 39'00	1°34'34
retrograde	-472 Sep 20 j 04:28	2° $\mathbb{I}$ 41'07		max. Earth dist.	-466 Aug 14 j 10:59	14° $\mathbb{Q}$ 41'12	10.51155 AU
	-472 Nov 15 j 23:29	30° $\mathbb{R}$ $\mathbb{S}$			-466 Aug 16 j 23:45	15° $\mathbb{Q}$	
opposition	-472 Nov 25 j 20:23	29° $\mathbb{S}$ 11'03	-1°-33'-46	morning rise	-466 Aug 31 j 13:00	16° $\mathbb{Q}$ 47'09	
min. Earth dist.	-472 Nov 25 j 12:20	29° $\mathbb{S}$ 12'44	7.95478 AU	retrograde	-466 Dec 09 j 14:53	24° $\mathbb{Q}$ 11'54	
direct	-471 Jan 31 j 11:42	25° $\mathbb{S}$ 41'12		opposition	-465 Feb 15 j 01:54	20° $\mathbb{Q}$ 51'00	2°09'37
	-471 Apr 13 j 03:58	0° $\mathbb{I}$		min. Earth dist.	-465 Feb 14 j 19:56	20° $\mathbb{Q}$ 52'10	8.57945 AU
evening set	-471 May 16 j 16:59	4° $\mathbb{I}$ 00'53		direct	-465 Apr 26 j 01:28	17° $\mathbb{Q}$ 24'34	
				evening set	-465 Aug 09 j 20:57	25° $\mathbb{Q}$ 06'30	
conjunction	-471 Jun 03 j 22:12	6° $\mathbb{I}$ 23'06	0°-59'-45				
minimum elong	-471 Jun 03 j 22:15	6° $\mathbb{I}$ 23'07	0°59'45	conjunction	-465 Aug 27 j 05:30	27° $\mathbb{Q}$ 12'50	1°54'45
max. Earth dist.	-471 Jun 04 j 09:32	6° $\mathbb{I}$ 26'49	9.97599 AU	minimum elong	-465 Aug 27 j 05:27	27° $\mathbb{Q}$ 12'49	1°54'45
morning rise	-471 Jun 22 j 02:51	8° $\mathbb{I}$ 45'08		max. Earth dist.	-465 Aug 27 j 11:19	27° $\mathbb{Q}$ 14'37	10.64604 AU
retrograde	-471 Oct 04 j 15:05	17° $\mathbb{I}$ 00'54		morning rise	-465 Sep 13 j 08:58	29° $\mathbb{Q}$ 17'39	
opposition	-471 Dec 10 j 03:25	13° $\mathbb{I}$ 31'56	0°-54'-42		-465 Sep 19 j 08:00	0° $\mathbb{Q}$	
min. Earth dist.	-471 Dec 09 j 18:24	13° $\mathbb{I}$ 33'49	8.00563 AU	retrograde	-465 Dec 21 j 23:28	6° $\mathbb{Q}$ 33'34	
direct	-470 Feb 15 j 04:43	10° $\mathbb{I}$ 01'51		opposition	-464 Feb 27 j 20:29	3° $\mathbb{Q}$ 14'05	2°30'39
evening set	-470 May 31 j 22:51	18° $\mathbb{I}$ 19'16		min. Earth dist.	-464 Feb 27 j 16:07	3° $\mathbb{Q}$ 14'55	8.71196 AU
					-464 Apr 23 j 08:14	30° $\mathbb{R}$ $\mathbb{Q}$	
conjunction	-470 Jun 19 j 04:01	20° $\mathbb{I}$ 40'21	0°-27'-5	direct	-464 May 08 j 07:10	29° $\mathbb{Q}$ 48'57	
minimum elong	-470 Jun 19 j 04:02	20° $\mathbb{I}$ 40'22	0°27'06		-464 May 23 j 06:04	0° $\mathbb{Q}$	
max. Earth dist.	-470 Jun 19 j 16:02	20° $\mathbb{I}$ 44'15	10.04246 AU	evening set	-464 Aug 21 j 16:30	7° $\mathbb{Q}$ 22'06	
morning rise	-470 Jul 07 j 07:12	23° $\mathbb{I}$ 00'48					
	-470 Sep 13 j 20:45	0° $\mathbb{S}$		conjunction	-464 Sep 07 j 19:56	9° $\mathbb{Q}$ 25'22	2°09'10
retrograde	-470 Oct 18 j 18:49	1° $\mathbb{S}$ 07'12		minimum elong	-464 Sep 07 j 19:53	9° $\mathbb{Q}$ 25'21	2°09'10
	-470 Nov 23 j 00:20	30° $\mathbb{R}$ $\mathbb{I}$		max. Earth dist.	-464 Sep 07 j 23:52	9° $\mathbb{Q}$ 26'33	10.77404 AU
opposition	-470 Dec 24 j 06:02	27° $\mathbb{I}$ 39'40	0°-12'-56	morning rise	-464 Sep 24 j 18:24	11° $\mathbb{Q}$ 27'12	
min. Earth dist.	-470 Dec 23 j 21:03	27° $\mathbb{I}$ 41'31	8.08561 AU	retrograde	-463 Jan 02 j 01:16	18° $\mathbb{Q}$ 35'30	
direct	-469 Mar 01 j 19:10	24° $\mathbb{I}$ 09'42		opposition	-463 Mar 11 j 09:13	15° $\mathbb{Q}$ 17'13	2°44'23
asc. node	-469 Apr 19 j 21:10	26° $\mathbb{I}$ 14'06		min. Earth dist.	-463 Mar 11 j 07:21	15° $\mathbb{Q}$ 17'34	8.83494 AU
	-469 May 27 j 10:08	0° $\mathbb{S}$		direct	-463 May 21 j 05:52	11° $\mathbb{Q}$ 53'22	
evening set	-469 Jun 15 j 22:49	2° $\mathbb{S}$ 22'39		evening set	-463 Sep 03 j 01:53	19° $\mathbb{Q}$ 18'12	
conjunction	-469 Jul 04 j 02:02	4° $\mathbb{S}$ 41'41	0°06'43	conjunction	-463 Sep 20 j 00:37	21° $\mathbb{Q}$ 18'47	2°17'38
minimum elong	-469 Jul 04 j 02:01	4° $\mathbb{S}$ 41'40	0°06'44	minimum elong	-463 Sep 20 j 00:36	21° $\mathbb{Q}$ 18'46	2°17'37
behind sun begin	-469 Jul 03 j 19:12	4° $\mathbb{S}$ 39'30		max. Earth dist.	-463 Sep 20 j 01:24	21° $\mathbb{Q}$ 19'01	10.88963 AU
behind sun end	-469 Jul 04 j 08:51	4° $\mathbb{S}$ 43'51		morning rise	-463 Oct 06 j 18:58	23° $\mathbb{Q}$ 18'04	
max. Earth dist.	-469 Jul 04 j 13:36	4° $\mathbb{S}$ 45'23	10.13548 AU		-463 Dec 25 j 02:36	0° $\mathbb{Q}$	
morning rise	-469 Jul 22 j 02:07	6° $\mathbb{S}$ 59'41		retrograde	-462 Jan 13 j 21:14	0° $\mathbb{Q}$ 20'08	
retrograde	-469 Nov 01 j 14:18	14° $\mathbb{S}$ 55'38			-462 Feb 02 j 20:40	30° $\mathbb{R}$ $\mathbb{Q}$	
opposition	-468 Jan 07 j 02:57	11° $\mathbb{S}$ 29'44	0°28'39	opposition	-462 Mar 23 j 16:42	27° $\mathbb{Q}$ 02'46	2°50'49
min. Earth dist.	-468 Jan 06 j 18:35	11° $\mathbb{S}$ 31'26	8.18962 AU	min. Earth dist.	-462 Mar 23 j 17:11	27° $\mathbb{Q}$ 02'41	8.94269 AU
direct	-468 Mar 15 j 06:19	8° $\mathbb{S}$ 00'14		direct	-462 Jun 02 j 20:43	23° $\mathbb{Q}$ 40'12	
evening set	-468 Jun 29 j 14:23	16° $\mathbb{S}$ 06'56			-462 Sep 06 j 16:47	0° $\mathbb{Q}$	
				evening set	-462 Sep 15 j 02:00	0° $\mathbb{Q}$ 57'27	



# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 37

Attention, astronomical year style is used: The year -462 in astronomical counting style is the year 463 BCE in historical counting style.

conjunction	-462 Oct 01 j 20:54	2°♄55'49	2°20'12	conjunction	-456 Dec 06 j 10:17	10°♄05'33	0°52'32
minimum elong	-462 Oct 01 j 20:54	2°♄55'49	2°20'11	minimum elong	-456 Dec 06 j 10:19	10°♄05'33	0°52'31
max. Earth dist.	-462 Oct 01 j 18:42	2°♄55'11	10.98760 AU	max. Earth dist.	-456 Dec 06 j 00:18	10°♄02'37	11.07192 AU
morning rise	-462 Oct 18 j 12:03	4°♄53'06		morning rise	-456 Dec 23 j 00:28	12°♄01'59	
retrograde	-461 Jan 25 j 12:49	11°♄50'32		retrograde	-455 Apr 03 j 16:37	19°♄05'08	
opposition	-461 Apr 04 j 20:12	8°♄33'49	2°50'13	opposition	-455 Jun 13 j 15:37	15°♄46'09	0°48'07
min. Earth dist.	-461 Apr 04 j 22:16	8°♄33'26	9.03036 AU	min. Earth dist.	-455 Jun 14 j 00:30	15°♄44'31	9.03880 AU
direct	-461 Jun 15 j 06:06	5°♄12'26		direct	-455 Aug 23 j 02:45	12°♄27'51	
evening set	-461 Sep 26 j 18:13	12°♄23'07		evening set	-455 Dec 01 j 03:25	19°♄26'39	
conjunction	-461 Oct 13 j 10:19	14°♄19'51	2°17'07	conjunction	-455 Dec 17 j 18:01	21°♄24'00	0°25'58
minimum elong	-461 Oct 13 j 10:20	14°♄19'51	2°17'06	minimum elong	-455 Dec 17 j 18:02	21°♄24'00	0°25'58
max. Earth dist.	-461 Oct 13 j 06:28	14°♄18'43	11.06383 AU	max. Earth dist.	-455 Dec 17 j 07:04	21°♄20'46	11.00031 AU
morning rise	-461 Oct 29 j 23:08	16°♄15'41		morning rise	-454 Jan 03 j 10:22	23°♄21'55	
retrograde	-460 Feb 06 j 04:26	23°♄10'08			-454 Mar 21 j 07:18	0°♄	
opposition	-460 Apr 15 j 20:38	19°♄53'46	2°42'59	retrograde	-454 Apr 15 j 19:58	0°♄31'36	
min. Earth dist.	-460 Apr 16 j 00:10	19°♄53'07	9.09473 AU		-454 May 11 j 17:05	30°♄	
direct	-460 Jun 26 j 08:55	16°♄33'28		opposition	-454 Jun 25 j 20:55	27°♄11'22	0°14'35
evening set	-460 Oct 07 j 04:36	23°♄38'44		min. Earth dist.	-454 Jun 26 j 06:18	27°♄09'38	8.95629 AU
conjunction	-460 Oct 23 j 18:45	25°♄34'23	2°08'44	direct	-454 Sep 03 j 21:01	23°♄52'45	
minimum elong	-460 Oct 23 j 18:47	25°♄34'24	2°08'45	desc. node	-454 Dec 01 j 21:42	29°♄41'08	
max. Earth dist.	-460 Oct 23 j 13:22	25°♄32'48	11.11602 AU		-454 Dec 04 j 16:27	0°♄	
morning rise	-460 Nov 09 j 06:11	27°♄29'20		evening set	-454 Dec 12 j 14:50	0°♄54'58	
	-460 Dec 02 j 05:57	0°♄		conjunction	-454 Dec 29 j 07:03	2°♄53'54	0°-2'-6
retrograde	-459 Feb 16 j 17:24	4°♄22'19		minimum elong	-454 Dec 29 j 07:02	2°♄53'54	0°02'07
opposition	-459 Apr 27 j 19:03	1°♄06'03	2°29'39	behind sun begin	-454 Dec 29 j 00:02	2°♄51'50	
min. Earth dist.	-459 Apr 28 j 00:48	1°♄04'59	9.13426 AU	behind sun end	-454 Dec 29 j 14:02	2°♄55'58	
	-459 May 13 j 01:44	30°♄		max. Earth dist.	-454 Dec 28 j 20:06	2°♄50'39	10.90826 AU
direct	-459 Jul 08 j 05:58	27°♄46'36		morning rise	-453 Jan 15 j 01:53	4°♄53'38	
	-459 Aug 31 j 06:19	0°♄		retrograde	-453 Apr 28 j 07:59	12°♄11'22	
evening set	-459 Oct 18 j 10:50	4°♄47'45		opposition	-453 Jul 08 j 06:39	8°♄49'44	0°-20'-13
conjunction	-459 Nov 03 j 23:41	6°♄42'48	1°55'32	min. Earth dist.	-453 Jul 08 j 15:39	8°♄48'03	8.85500 AU
minimum elong	-459 Nov 03 j 23:43	6°♄42'49	1°55'32	direct	-453 Sep 15 j 19:26	5°♄30'37	
max. Earth dist.	-459 Nov 03 j 15:47	6°♄40'30	11.14309 AU	evening set	-453 Dec 24 j 08:40	12°♄37'49	
morning rise	-459 Nov 20 j 10:49	8°♄37'25		conjunction	-452 Jan 10 j 03:00	14°♄38'41	0°-30'-32
	-458 Feb 03 j 07:07	15°♄		minimum elong	-452 Jan 10 j 02:58	14°♄38'41	0°30'33
retrograde	-458 Feb 28 j 06:57	15°♄30'33		max. Earth dist.	-452 Jan 09 j 17:26	14°♄35'48	10.79890 AU
	-458 Mar 25 j 15:17	15°♄		morning rise	-452 Jan 27 j 00:28	16°♄40'35	
opposition	-458 May 09 j 16:52	12°♄14'02	2°10'48	retrograde	-452 May 10 j 04:12	24°♄07'41	
min. Earth dist.	-458 May 10 j 00:30	12°♄12'38	9.14825 AU	opposition	-452 Jul 19 j 21:51	20°♄44'32	0°-55'-4
direct	-458 Jul 20 j 01:35	8°♄55'12		min. Earth dist.	-452 Jul 20 j 05:24	20°♄43'06	8.73848 AU
	-458 Oct 21 j 16:19	15°♄		direct	-452 Sep 26 j 20:44	17°♄24'45	
evening set	-458 Oct 29 j 14:17	15°♄53'32		evening set	-451 Jan 04 j 10:50	24°♄38'31	
conjunction	-458 Nov 15 j 02:40	17°♄48'30	1°38'02	conjunction	-451 Jan 21 j 07:25	26°♄41'36	0°-58'-18
minimum elong	-458 Nov 15 j 02:42	17°♄48'30	1°38'01	minimum elong	-451 Jan 21 j 07:23	26°♄41'35	0°58'19
max. Earth dist.	-458 Nov 14 j 17:12	17°♄45'44	11.14458 AU	max. Earth dist.	-451 Jan 20 j 23:03	26°♄39'02	10.67631 AU
morning rise	-458 Dec 01 j 14:16	19°♄43'16		morning rise	-451 Feb 07 j 07:45	28°♄45'54	
retrograde	-457 Mar 11 j 21:24	26°♄38'09			-451 Feb 17 j 19:00	0°♄	
opposition	-457 May 21 j 14:51	23°♄21'03	1°47'06	retrograde	-451 May 23 j 08:54	6°♄23'27	
min. Earth dist.	-457 May 21 j 23:13	23°♄19'31	9.13652 AU	opposition	-451 Aug 01 j 19:25	2°♄58'45	-1°-28'-27
direct	-457 Jul 31 j 18:44	20°♄02'38		min. Earth dist.	-451 Aug 02 j 01:28	2°♄57'35	8.61138 AU
evening set	-457 Nov 09 j 16:58	26°♄59'34			-451 Sep 18 j 15:45	30°♄	
conjunction	-457 Nov 26 j 05:42	28°♄54'54	1°16'48	direct	-451 Oct 09 j 04:35	29°♄38'06	
minimum elong	-457 Nov 26 j 05:44	28°♄54'54	1°16'48		-451 Oct 29 j 11:30	0°♄	
max. Earth dist.	-457 Nov 25 j 20:13	28°♄52'07	11.12058 AU	evening set	-450 Jan 16 j 22:46	6°♄59'49	
	-457 Dec 05 j 12:17	0°♄		conjunction	-450 Feb 02 j 21:54	9°♄05'23	-1°-24'-5
morning rise	-457 Dec 12 j 18:18	0°♄50'17		minimum elong	-450 Feb 02 j 21:51	9°♄05'22	1°24'07
retrograde	-456 Mar 22 j 16:41	7°♄48'31		max. Earth dist.	-450 Feb 02 j 14:18	9°♄03'01	10.54573 AU
opposition	-456 Jun 01 j 13:57	4°♄30'34	1°19'16	morning rise	-450 Feb 20 j 01:28	11°♄12'21	
min. Earth dist.	-456 Jun 01 j 22:17	4°♄29'02	9.09960 AU		-450 Mar 25 j 15:38	15°♄	
direct	-456 Aug 11 j 11:32	1°♄12'19		retrograde	-450 Jun 05 j 23:24	19°♄00'57	
evening set	-456 Nov 19 j 20:45	8°♄09'23		opposition	-450 Aug 15 j 00:00	15°♄34'45	-1°-58'-40
				min. Earth dist.	-450 Aug 15 j 04:51	15°♄33'48	8.47939 AU

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 38

Attention, astronomical year style is used: The year -450 in astronomical counting style is the year 451 BCE in historical counting style.

	-450 Aug 22 j 11:04	15°R		direct	-443 Jan 10 j 14:04	5°804'47	
direct	-450 Oct 21 j 18:33	12°13'04		evening set	-443 Apr 24 j 22:08	13°822'52	
	-450 Dec 17 j 22:19	15°			-443 May 07 j 07:58	15°8	
evening set	-449 Jan 29 j 21:33	19°43'51					
				conjunction	-443 May 13 j 00:16	15°844'51	-1°-40'-11
conjunction	-449 Feb 15 j 23:42	21°52'05	-1°-46'-27	minimum elong	-443 May 13 j 00:20	15°844'52	1°40'11
minimum elong	-449 Feb 15 j 23:39	21°52'04	1°46'29	max. Earth dist.	-443 May 13 j 09:32	15°847'54	9.94782 AU
max. Earth dist.	-449 Feb 15 j 17:33	21°50'09	10.41321 AU	morning rise	-443 May 31 j 04:02	18°807'21	
morning rise	-449 Mar 05 j 06:47	24°01'53		retrograde	-443 Sep 14 j 04:20	26°832'38	
	-449 May 01 j 03:40	0°		opposition	-443 Nov 19 j 21:19	23°802'45	-1°-49'-13
retrograde	-449 Jun 19 j 22:16	2°01'34		min. Earth dist.	-443 Nov 19 j 14:05	23°804'15	7.95551 AU
	-449 Aug 09 j 18:14	30°R		direct	-442 Jan 25 j 07:28	19°833'39	
opposition	-449 Aug 28 j 11:43	28°33'58	-2°-23'-53	evening set	-442 May 10 j 07:27	27°853'06	
min. Earth dist.	-449 Aug 28 j 15:19	28°33'15	8.34882 AU		-442 May 26 j 13:07	0°II	
direct	-449 Nov 03 j 16:53	25°11'09					
	-448 Jan 19 j 07:14	0°		conjunction	-442 May 28 j 11:55	0°II15'21	-1°-13'-7
evening set	-448 Feb 12 j 08:06	2°51'44		minimum elong	-442 May 28 j 11:58	0°II15'22	1°13'07
				max. Earth dist.	-442 May 28 j 21:34	0°II18'31	9.96918 AU
conjunction	-448 Feb 29 j 13:45	5°02'46	-2°-3'-55	morning rise	-442 Jun 15 j 16:43	2°II37'40	
minimum elong	-448 Feb 29 j 13:43	5°02'45	2°03'57	retrograde	-442 Sep 28 j 17:17	10°II56'39	
max. Earth dist.	-448 Feb 29 j 10:12	5°01'38	10.28537 AU	opposition	-442 Dec 04 j 05:58	7°II27'44	-1°-12'-18
morning rise	-448 Mar 18 j 00:26	7°15'25		min. Earth dist.	-442 Dec 03 j 22:36	7°II29'16	7.99138 AU
retrograde	-448 Jul 03 j 04:11	15°25'32		direct	-441 Feb 09 j 01:37	3°II58'14	
opposition	-448 Sep 10 j 06:13	11°56'43	-2°-42'-11	evening set	-441 May 25 j 15:16	12°II16'41	
min. Earth dist.	-448 Sep 10 j 07:47	11°56'24	8.22652 AU				
direct	-448 Nov 16 j 01:32	8°32'42		conjunction	-441 Jun 12 j 20:29	14°II38'17	0°-41'-40
evening set	-447 Feb 25 j 06:24	16°23'12		minimum elong	-441 Jun 12 j 20:31	14°II38'18	0°41'40
				max. Earth dist.	-441 Jun 13 j 06:12	14°II41'27	10.02017 AU
conjunction	-447 Mar 14 j 16:04	18°37'06	-2°-15'-3	morning rise	-441 Jul 01 j 00:38	16°II59'28	
minimum elong	-447 Mar 14 j 16:02	18°37'05	2°15'05	retrograde	-441 Oct 13 j 00:05	25°II10'06	
max. Earth dist.	-447 Mar 14 j 15:48	18°37'01	10.16939 AU	opposition	-441 Dec 18 j 10:59	21°II42'26	0°-31'-22
morning rise	-447 Apr 01 j 06:29	20°52'32		min. Earth dist.	-441 Dec 18 j 03:08	21°II44'03	8.05589 AU
retrograde	-447 Jul 17 j 17:54	29°11'34		direct	-440 Feb 23 j 18:36	18°II12'51	
opposition	-447 Sep 24 j 07:10	25°41'47	-2°-51'-50	evening set	-440 Jun 08 j 18:21	26°II28'00	
min. Earth dist.	-447 Sep 24 j 06:08	25°41'59	8.11959 AU				
direct	-447 Nov 29 j 17:34	22°16'35		conjunction	-440 Jun 26 j 22:33	28°II47'59	0°-8'-8
	-446 Mar 09 j 12:11	0°		minimum elong	-440 Jun 26 j 22:33	28°II47'59	0°08'08
evening set	-446 Mar 11 j 15:53	0°16'27		behind sun begin	-440 Jun 26 j 16:04	28°II45'55	
				behind sun end	-440 Jun 27 j 05:03	28°II50'04	
conjunction	-446 Mar 29 j 05:55	2°33'04	-2°-18'-39	max. Earth dist.	-440 Jun 27 j 08:36	28°II51'13	10.09835 AU
minimum elong	-446 Mar 29 j 05:55	2°33'04	2°18'40		-440 Jul 06 j 05:46	0°	
max. Earth dist.	-446 Mar 29 j 09:03	2°34'05	10.07230 AU	morning rise	-440 Jul 15 j 00:19	1°07'09	
morning rise	-446 Apr 16 j 00:14	4°51'06		asc. node	-440 Sep 25 j 21:14	8°07'53	
retrograde	-446 Aug 01 j 13:40	13°16'38		retrograde	-440 Oct 25 j 23:02	9°07'59	
opposition	-446 Oct 08 j 13:17	9°46'13	-2°-51'-30	opposition	-440 Dec 31 j 10:52	5°041'44	0°10'39
min. Earth dist.	-446 Oct 08 j 09:39	9°46'58	8.03457 AU	min. Earth dist.	-440 Dec 31 j 02:36	5°043'26	8.14592 AU
direct	-446 Dec 13 j 17:13	6°19'53		direct	-439 Mar 09 j 08:22	2°012'23	
evening set	-445 Mar 26 j 11:26	14°27'53		evening set	-439 Jun 23 j 14:20	10°022'12	
conjunction	-445 Apr 13 j 05:54	16°46'53	-2°-13'-59	conjunction	-439 Jul 11 j 15:52	12°039'46	0°25'21
minimum elong	-445 Apr 13 j 05:56	16°46'54	2°13'59	minimum elong	-439 Jul 11 j 15:51	12°039'46	0°25'21
max. Earth dist.	-445 Apr 13 j 11:43	16°48'48	10.00029 AU	max. Earth dist.	-439 Jul 12 j 01:55	12°042'58	10.19951 AU
morning rise	-445 May 01 j 03:59	19°07'06		morning rise	-439 Jul 29 j 13:46	14°056'11	
retrograde	-445 Aug 16 j 12:02	27°35'59		retrograde	-439 Nov 08 j 12:48	22°046'26	
opposition	-445 Oct 22 j 22:52	24°05'22	-2°-40'-34	opposition	-438 Jan 14 j 04:33	19°021'43	0°51'02
min. Earth dist.	-445 Oct 22 j 17:22	24°06'30	7.97692 AU	min. Earth dist.	-438 Jan 13 j 20:36	19°023'19	8.25636 AU
direct	-445 Dec 28 j 00:17	20°37'57		direct	-438 Mar 23 j 17:00	15°052'51	
evening set	-444 Apr 09 j 14:32	28°52'12		evening set	-438 Jul 08 j 01:01	23°055'44	
	-444 Apr 18 j 06:55	0°8					
				conjunction	-438 Jul 25 j 22:28	26°010'19	0°56'37
conjunction	-444 Apr 27 j 13:11	1°813'04	-2°00'-56	minimum elong	-438 Jul 25 j 22:26	26°010'19	0°56'37
minimum elong	-444 Apr 27 j 13:14	1°813'05	2°00'56	max. Earth dist.	-438 Jul 26 j 07:47	26°013'16	10.31769 AU
max. Earth dist.	-444 Apr 27 j 21:04	1°815'40	9.95803 AU	morning rise	-438 Aug 12 j 15:23	28°023'30	
morning rise	-444 May 15 j 14:33	3°834'49			-438 Aug 25 j 22:56	0°	
retrograde	-444 Aug 30 j 10:06	12°803'35		retrograde	-438 Nov 21 j 18:03	6°03'05	
opposition	-444 Nov 05 j 10:19	8°833'08	-2°-19'-22	opposition	-437 Jan 27 j 15:43	2°039'55	1°27'30
min. Earth dist.	-444 Nov 05 j 03:36	8°834'32	7.95024 AU	min. Earth dist.	-437 Jan 27 j 08:57	2°041'16	8.38073 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 39

Attention, astronomical year style is used: The year -437 in astronomical counting style is the year 438 BCE in historical counting style.

	-437 Mar 06 j 22:03	30° $\text{R}\mathfrak{E}$		opposition	-431 Apr 11 j 01:00	15° $\mathfrak{A}$ 14'31	2°47'04
direct	-437 Apr 06 j 18:23	29° $\mathfrak{E}$ 11'48		min. Earth dist.	-431 Apr 11 j 03:50	15° $\mathfrak{A}$ 13'59	9.05935 AU
	-437 May 07 j 12:58	0° $\mathfrak{Q}$		direct	-431 Jun 21 j 12:13	11° $\mathfrak{A}$ 53'18	
evening set	-437 Jul 22 j 00:46	7° $\mathfrak{Q}$ 06'39		evening set	-431 Oct 02 j 15:26	19° $\mathfrak{A}$ 00'53	
conjunction	-437 Aug 08 j 17:08	9° $\mathfrak{Q}$ 17'55	1°24'07	conjunction	-431 Oct 19 j 06:16	20° $\mathfrak{A}$ 56'59	2°13'06
minimum elong	-437 Aug 08 j 17:04	9° $\mathfrak{Q}$ 17'54	1°24'08	minimum elong	-431 Oct 19 j 06:17	20° $\mathfrak{A}$ 57'00	2°13'06
max. Earth dist.	-437 Aug 09 j 00:54	9° $\mathfrak{Q}$ 20'20	10.44610 AU	max. Earth dist.	-431 Oct 19 j 01:46	20° $\mathfrak{A}$ 55'40	11.08855 AU
morning rise	-437 Aug 26 j 04:34	11° $\mathfrak{Q}$ 27'39		morning rise	-431 Nov 04 j 18:22	22° $\mathfrak{A}$ 52'18	
	-437 Sep 26 j 06:23	15° $\mathfrak{Q}$		retrograde	-430 Feb 12 j 00:07	29° $\mathfrak{A}$ 45'37	
retrograde	-437 Dec 04 j 14:09	18° $\mathfrak{Q}$ 57'03		opposition	-430 Apr 22 j 23:47	26° $\mathfrak{A}$ 28'59	2°36'18
opposition	-436 Feb 09 j 20:02	15° $\mathfrak{Q}$ 35'21	1°58'21	min. Earth dist.	-430 Apr 23 j 03:46	26° $\mathfrak{A}$ 28'15	9.11531 AU
min. Earth dist.	-436 Feb 09 j 14:58	15° $\mathfrak{Q}$ 36'21	8.51212 AU	direct	-430 Jul 03 j 12:14	23° $\mathfrak{A}$ 08'51	
	-436 Feb 17 j 08:20	15° $\text{R}\mathfrak{Q}$			-430 Oct 12 j 06:24	0° $\mathfrak{M}$	
direct	-436 Apr 19 j 12:27	12° $\mathfrak{Q}$ 08'11		evening set	-430 Oct 13 j 22:45	0° $\mathfrak{M}$ 11'30	
	-436 Jun 18 j 19:17	15° $\mathfrak{Q}$					
evening set	-436 Aug 03 j 13:01	19° $\mathfrak{Q}$ 54'23		conjunction	-430 Oct 30 j 12:07	2° $\mathfrak{M}$ 06'43	2°01'56
conjunction	-436 Aug 20 j 23:54	22° $\mathfrak{Q}$ 02'17	1°46'43	minimum elong	-430 Oct 30 j 12:09	2° $\mathfrak{M}$ 06'44	2°01'57
minimum elong	-436 Aug 20 j 23:51	22° $\mathfrak{Q}$ 02'16	1°46'43	max. Earth dist.	-430 Oct 30 j 06:46	2° $\mathfrak{M}$ 05'09	11.13279 AU
max. Earth dist.	-436 Aug 21 j 05:09	22° $\mathfrak{Q}$ 03'54	10.57796 AU	morning rise	-430 Nov 15 j 23:19	4° $\mathfrak{M}$ 01'23	
morning rise	-436 Sep 07 j 05:54	24° $\mathfrak{Q}$ 08'40		retrograde	-429 Feb 23 j 14:17	10° $\mathfrak{M}$ 53'57	
	-436 Nov 04 j 18:14	0° $\mathfrak{M}$		opposition	-429 May 04 j 21:13	7° $\mathfrak{M}$ 37'20	2°19'46
retrograde	-436 Dec 16 j 00:22	1° $\mathfrak{M}$ 28'43		min. Earth dist.	-429 May 05 j 01:51	7° $\mathfrak{M}$ 36'29	9.14701 AU
	-435 Jan 27 j 07:44	30° $\text{R}\mathfrak{Q}$		direct	-429 Jul 15 j 08:59	4° $\mathfrak{M}$ 18'08	
opposition	-435 Feb 21 j 17:26	28° $\mathfrak{Q}$ 08'22	2°22'31	evening set	-429 Oct 25 j 02:36	11° $\mathfrak{M}$ 17'07	
min. Earth dist.	-435 Feb 21 j 13:44	28° $\mathfrak{Q}$ 09'05	8.64372 AU	conjunction	-429 Nov 10 j 15:15	13° $\mathfrak{M}$ 11'59	1°46'15
direct	-435 May 02 j 23:28	24° $\mathfrak{Q}$ 42'16		minimum elong	-429 Nov 10 j 15:17	13° $\mathfrak{M}$ 12'00	1°46'15
	-435 Jul 27 j 05:29	0° $\mathfrak{M}$		max. Earth dist.	-429 Nov 10 j 09:01	13° $\mathfrak{M}$ 10'10	11.15223 AU
evening set	-435 Aug 16 j 13:43	2° $\mathfrak{M}$ 19'42			-429 Nov 26 j 03:38	15° $\mathfrak{M}$	
conjunction	-435 Sep 02 j 19:20	4° $\mathfrak{M}$ 24'24	2°03'43	morning rise	-429 Nov 27 j 02:25	15° $\mathfrak{M}$ 06'31	
minimum elong	-435 Sep 02 j 19:17	4° $\mathfrak{M}$ 24'24	2°03'43	retrograde	-428 Mar 06 j 04:18	21° $\mathfrak{M}$ 59'52	
max. Earth dist.	-435 Sep 02 j 22:24	4° $\mathfrak{M}$ 25'21	10.70676 AU	opposition	-428 May 15 j 18:20	18° $\mathfrak{M}$ 43'03	1°58'06
morning rise	-435 Sep 19 j 20:11	6° $\mathfrak{M}$ 27'40		min. Earth dist.	-428 May 16 j 00:24	18° $\mathfrak{M}$ 41'57	9.15340 AU
retrograde	-435 Dec 28 j 04:44	13° $\mathfrak{M}$ 39'32		direct	-428 Jul 26 j 00:12	15° $\mathfrak{M}$ 24'34	
opposition	-434 Mar 06 j 08:40	10° $\mathfrak{M}$ 20'20	2°39'28	evening set	-428 Nov 04 j 05:02	22° $\mathfrak{M}$ 21'20	
min. Earth dist.	-434 Mar 06 j 06:00	10° $\mathfrak{M}$ 20'51	8.76917 AU	conjunction	-428 Nov 20 j 17:28	24° $\mathfrak{M}$ 16'18	1°26'36
direct	-434 May 16 j 02:52	6° $\mathfrak{M}$ 55'27		minimum elong	-428 Nov 20 j 17:30	24° $\mathfrak{M}$ 16'19	1°26'35
evening set	-434 Aug 29 j 03:27	14° $\mathfrak{M}$ 24'19		max. Earth dist.	-428 Nov 20 j 09:21	24° $\mathfrak{M}$ 13'56	11.14624 AU
conjunction	-434 Sep 15 j 04:17	16° $\mathfrak{M}$ 26'10	2°14'47	morning rise	-428 Dec 07 j 05:28	26° $\mathfrak{M}$ 11'11	
minimum elong	-434 Sep 15 j 04:15	16° $\mathfrak{M}$ 26'09	2°14'46		-427 Jan 12 j 18:38	0° $\mathfrak{J}$	
max. Earth dist.	-434 Sep 15 j 06:01	16° $\mathfrak{M}$ 26'41	10.82662 AU	retrograde	-427 Mar 17 j 19:51	3° $\mathfrak{J}$ 06'58	
morning rise	-434 Oct 02 j 00:29	18° $\mathfrak{M}$ 26'38			-427 May 25 j 07:41	30° $\text{R}\mathfrak{M}$	
retrograde	-433 Jan 09 j 03:59	25° $\mathfrak{M}$ 31'40		opposition	-427 May 27 j 16:09	29° $\mathfrak{M}$ 49'40	1°32'00
opposition	-433 Mar 18 j 18:25	22° $\mathfrak{M}$ 13'26	2°49'05	min. Earth dist.	-427 May 27 j 23:51	29° $\mathfrak{M}$ 48'15	9.13431 AU
min. Earth dist.	-433 Mar 18 j 17:01	22° $\mathfrak{M}$ 13'42	8.88304 AU	direct	-427 Aug 06 j 16:17	26° $\mathfrak{M}$ 31'38	
direct	-433 May 28 j 20:19	18° $\mathfrak{M}$ 49'49		evening set	-427 Oct 13 j 15:22	0° $\mathfrak{J}$	
evening set	-433 Sep 10 j 07:24	26° $\mathfrak{M}$ 10'40			-427 Nov 15 j 07:39	3° $\mathfrak{J}$ 27'44	
conjunction	-433 Sep 27 j 04:08	28° $\mathfrak{M}$ 10'06	2°19'54	conjunction	-427 Dec 01 j 20:32	5° $\mathfrak{J}$ 23'14	1°03'37
minimum elong	-433 Sep 27 j 04:07	28° $\mathfrak{M}$ 10'06	2°19'53	minimum elong	-427 Dec 01 j 20:34	5° $\mathfrak{J}$ 23'15	1°03'36
max. Earth dist.	-433 Sep 27 j 04:31	28° $\mathfrak{M}$ 10'13	10.93270 AU	max. Earth dist.	-427 Dec 01 j 11:15	5° $\mathfrak{J}$ 20'31	11.11508 AU
	-433 Oct 12 j 15:59	0° $\mathfrak{A}$		morning rise	-427 Dec 18 j 09:58	7° $\mathfrak{J}$ 18'56	
morning rise	-433 Oct 13 j 20:32	0° $\mathfrak{A}$ 08'19		retrograde	-426 Mar 29 j 16:24	14° $\mathfrak{J}$ 18'45	
retrograde	-432 Jan 20 j 21:33	7° $\mathfrak{A}$ 07'55		opposition	-426 Jun 08 j 16:02	11° $\mathfrak{J}$ 00'41	1°02'15
opposition	-432 Mar 29 j 23:33	3° $\mathfrak{A}$ 50'27	2°51'29	min. Earth dist.	-426 Jun 09 j 00:06	10° $\mathfrak{J}$ 59'12	9.09044 AU
min. Earth dist.	-432 Mar 30 j 00:19	3° $\mathfrak{A}$ 50'18	8.98099 AU	direct	-426 Aug 18 j 08:26	7° $\mathfrak{J}$ 42'53	
direct	-432 Jun 09 j 07:00	0° $\mathfrak{A}$ 28'04		evening set	-426 Nov 26 j 12:07	14° $\mathfrak{J}$ 39'47	
evening set	-432 Sep 21 j 02:50	7° $\mathfrak{A}$ 41'45		conjunction	-426 Dec 13 j 02:06	16° $\mathfrak{J}$ 36'16	0°38'00
conjunction	-432 Oct 07 j 20:10	9° $\mathfrak{A}$ 39'15	2°19'14	minimum elong	-426 Dec 13 j 02:07	16° $\mathfrak{J}$ 36'16	0°38'00
minimum elong	-432 Oct 07 j 20:11	9° $\mathfrak{A}$ 39'16	2°19'13	max. Earth dist.	-426 Dec 12 j 17:09	16° $\mathfrak{J}$ 33'38	11.05963 AU
max. Earth dist.	-432 Oct 07 j 18:02	9° $\mathfrak{A}$ 38'37	11.02108 AU	morning rise	-426 Dec 29 j 17:18	18° $\mathfrak{J}$ 33'11	
morning rise	-432 Oct 24 j 09:57	11° $\mathfrak{A}$ 35'45		retrograde	-425 Apr 10 j 17:47	25° $\mathfrak{J}$ 38'38	
retrograde	-431 Jan 31 j 12:29	18° $\mathfrak{A}$ 31'26		opposition	-425 Jun 20 j 18:51	22° $\mathfrak{J}$ 19'33	0°29'44
				min. Earth dist.	-425 Jun 21 j 02:33	22° $\mathfrak{J}$ 18'08	9.02308 AU

## Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 40

Attention, astronomical year style is used: The year -425 in astronomical counting style is the year 426 BCE in historical counting style.

direct	-425 Aug 30 j 01:07	19° $\mathring{\text{A}}$ 01'44		opposition	-419 Sep 04 j 04:57	5° $\mathring{\text{H}}$ 54'32	-2°-34'-34
evening set	-425 Dec 07 j 20:37	26° $\mathring{\text{A}}$ 01'03		min. Earth dist.	-419 Sep 04 j 07:51	5° $\mathring{\text{H}}$ 53'58	8.30272 AU
				direct	-419 Nov 10 j 05:27	2° $\mathring{\text{H}}$ 31'24	
conjunction	-425 Dec 24 j 12:03	27° $\mathring{\text{A}}$ 58'54	0°10'37	evening set	-418 Feb 19 j 02:40	10° $\mathring{\text{H}}$ 16'00	
minimum elong	-425 Dec 24 j 12:03	27° $\mathring{\text{A}}$ 58'54	0°10'37				
behind sun begin	-425 Dec 24 j 06:36	27° $\mathring{\text{A}}$ 57'18		conjunction	-418 Mar 08 j 10:07	12° $\mathring{\text{H}}$ 28'14	-2°-10'-44
behind sun end	-425 Dec 24 j 17:31	28° $\mathring{\text{A}}$ 00'30		minimum elong	-418 Mar 08 j 10:06	12° $\mathring{\text{H}}$ 28'14	2°10'45
max. Earth dist.	-425 Dec 24 j 03:04	27° $\mathring{\text{A}}$ 56'15	10.98154 AU	max. Earth dist.	-418 Mar 08 j 06:29	12° $\mathring{\text{H}}$ 27'04	10.23935 AU
morning rise	-424 Jan 10 j 05:26	29° $\mathring{\text{A}}$ 57'24		morning rise	-418 Mar 25 j 22:34	14° $\mathring{\text{H}}$ 42'04	
	-424 Jan 10 j 14:23	0° $\mathring{\text{B}}$		retrograde	-418 Jul 11 j 07:19	22° $\mathring{\text{H}}$ 55'58	
retrograde	-424 Apr 22 j 02:38	7° $\mathring{\text{B}}$ 09'58		opposition	-418 Sep 18 j 02:02	19° $\mathring{\text{H}}$ 26'45	-2°-48'-28
desc. node	-424 May 13 j 20:43	6° $\mathring{\text{B}}$ 47'21		min. Earth dist.	-418 Sep 18 j 03:22	19° $\mathring{\text{H}}$ 26'29	8.18179 AU
opposition	-424 Jul 02 j 01:31	3° $\mathring{\text{B}}$ 49'40	0°-4'-31	direct	-418 Nov 23 j 15:55	16° $\mathring{\text{H}}$ 02'10	
min. Earth dist.	-424 Jul 02 j 09:12	3° $\mathring{\text{B}}$ 48'15	8.93430 AU	evening set	-417 Mar 05 j 06:00	23° $\mathring{\text{H}}$ 56'41	
direct	-424 Sep 09 j 19:55	0° $\mathring{\text{B}}$ 31'32					
evening set	-424 Dec 18 j 10:47	7° $\mathring{\text{B}}$ 34'55		conjunction	-417 Mar 22 j 17:38	26° $\mathring{\text{H}}$ 11'47	-2°-18'00
				minimum elong	-417 Mar 22 j 17:37	26° $\mathring{\text{H}}$ 11'46	2°18'01
conjunction	-423 Jan 04 j 03:51	9° $\mathring{\text{B}}$ 34'28	0°-17'-44	max. Earth dist.	-417 Mar 22 j 16:19	26° $\mathring{\text{H}}$ 11'21	10.12634 AU
minimum elong	-423 Jan 04 j 03:50	9° $\mathring{\text{B}}$ 34'27	0°17'45	morning rise	-417 Apr 09 j 10:06	28° $\mathring{\text{H}}$ 28'24	
max. Earth dist.	-423 Jan 03 j 17:52	9° $\mathring{\text{B}}$ 31'28	10.88319 AU		-417 Apr 21 j 16:09	0° $\mathring{\text{Y}}$	
morning rise	-423 Jan 20 j 23:52	11° $\mathring{\text{B}}$ 34'56		retrograde	-417 Jul 25 j 23:26	6° $\mathring{\text{Y}}$ 50'14	
retrograde	-423 May 04 j 17:22	18° $\mathring{\text{B}}$ 56'01		opposition	-417 Oct 02 j 04:58	3° $\mathring{\text{Y}}$ 20'02	-2°-53'00
opposition	-423 Jul 14 j 13:21	15° $\mathring{\text{B}}$ 34'20	0°-39'-22	min. Earth dist.	-417 Oct 02 j 04:37	3° $\mathring{\text{Y}}$ 20'07	8.07916 AU
min. Earth dist.	-423 Jul 14 j 21:34	15° $\mathring{\text{B}}$ 32'48	8.82677 AU		-417 Nov 27 j 07:37	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
direct	-423 Sep 21 j 17:58	12° $\mathring{\text{B}}$ 15'36		direct	-417 Dec 07 j 11:58	29° $\mathring{\text{H}}$ 54'03	
evening set	-423 Dec 30 j 08:03	19° $\mathring{\text{B}}$ 24'41			-417 Dec 17 j 16:28	0° $\mathring{\text{Y}}$	
				evening set	-416 Mar 18 j 19:54	7° $\mathring{\text{Y}}$ 57'40	
conjunction	-422 Jan 16 j 03:10	21° $\mathring{\text{B}}$ 26'16	0°-45'-51				
minimum elong	-422 Jan 16 j 03:09	21° $\mathring{\text{B}}$ 26'15	0°45'52	conjunction	-416 Apr 05 j 12:01	10° $\mathring{\text{Y}}$ 15'23	-2°-17'-19
max. Earth dist.	-422 Jan 15 j 17:12	21° $\mathring{\text{B}}$ 23'14	10.76754 AU	minimum elong	-416 Apr 05 j 12:02	10° $\mathring{\text{Y}}$ 15'24	2°17'20
morning rise	-422 Feb 02 j 02:04	23° $\mathring{\text{B}}$ 28'59		max. Earth dist.	-416 Apr 05 j 13:42	10° $\mathring{\text{Y}}$ 15'56	10.03504 AU
	-422 Apr 12 j 13:24	0° $\mathring{\approx}$		morning rise	-416 Apr 23 j 08:22	12° $\mathring{\text{Y}}$ 34'29	
retrograde	-422 May 17 j 15:50	0° $\mathring{\approx}$ 59'58		retrograde	-416 Aug 08 j 18:48	21° $\mathring{\text{Y}}$ 01'35	
	-422 Jun 22 j 08:04	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$		opposition	-416 Oct 15 j 12:22	17° $\mathring{\text{Y}}$ 30'47	-2°-47'-11
opposition	-422 Jul 27 j 07:06	27° $\mathring{\text{B}}$ 36'44	-1°-13'-27	min. Earth dist.	-416 Oct 15 j 09:56	17° $\mathring{\text{Y}}$ 31'17	8.00111 AU
min. Earth dist.	-422 Jul 27 j 15:03	27° $\mathring{\text{B}}$ 35'14	8.70401 AU	direct	-416 Dec 20 j 16:17	14° $\mathring{\text{Y}}$ 03'31	
direct	-422 Oct 03 j 23:11	24° $\mathring{\text{B}}$ 17'10		evening set	-415 Apr 02 j 18:40	22° $\mathring{\text{Y}}$ 14'40	
	-422 Dec 29 j 08:11	0° $\mathring{\approx}$					
evening set	-421 Jan 11 j 14:19	1° $\mathring{\approx}$ 33'33		conjunction	-415 Apr 20 j 15:19	24° $\mathring{\text{Y}}$ 34'40	-2°-8'-15
				minimum elong	-415 Apr 20 j 15:21	24° $\mathring{\text{Y}}$ 34'40	2°08'16
conjunction	-421 Jan 28 j 12:02	3° $\mathring{\approx}$ 37'30	-1°-12'-36	max. Earth dist.	-415 Apr 20 j 20:15	24° $\mathring{\text{Y}}$ 36'17	9.97132 AU
minimum elong	-421 Jan 28 j 11:59	3° $\mathring{\approx}$ 37'29	1°12'38	morning rise	-415 May 08 j 15:14	26° $\mathring{\text{Y}}$ 55'44	
max. Earth dist.	-421 Jan 28 j 03:18	3° $\mathring{\approx}$ 34'49	10.63878 AU		-415 Jun 02 j 14:07	0° $\mathring{\text{B}}$	
morning rise	-421 Feb 14 j 13:54	5° $\mathring{\approx}$ 42'47		retrograde	-415 Aug 23 j 15:44	5° $\mathring{\text{B}}$ 24'51	
retrograde	-421 May 31 j 00:53	13° $\mathring{\approx}$ 24'35		opposition	-415 Oct 29 j 22:34	1° $\mathring{\text{B}}$ 53'51	-2°-30'-51
opposition	-421 Aug 09 j 07:14	9° $\mathring{\approx}$ 59'45	-1°-45'-12	min. Earth dist.	-415 Oct 29 j 17:48	1° $\mathring{\text{B}}$ 54'51	7.95271 AU
min. Earth dist.	-421 Aug 09 j 13:53	9° $\mathring{\approx}$ 58'28	8.57120 AU		-415 Nov 23 j 02:41	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$	
direct	-421 Oct 16 j 09:40	6° $\mathring{\approx}$ 39'10		direct	-414 Jan 04 j 02:56	28° $\mathring{\text{Y}}$ 25'29	
evening set	-420 Jan 24 j 06:58	14° $\mathring{\approx}$ 04'10			-414 Feb 14 j 11:02	0° $\mathring{\text{B}}$	
	-420 Jan 31 j 20:23	15° $\mathring{\approx}$		evening set	-414 Apr 17 j 23:53	6° $\mathring{\text{B}}$ 42'02	
conjunction	-420 Feb 10 j 07:36	16° $\mathring{\approx}$ 10'44	-1°-36'-38	conjunction	-414 May 06 j 00:37	9° $\mathring{\text{B}}$ 03'40	-1°-51'-5
minimum elong	-420 Feb 10 j 07:33	16° $\mathring{\approx}$ 10'43	1°36'40	minimum elong	-414 May 06 j 00:41	9° $\mathring{\text{B}}$ 03'42	1°51'05
max. Earth dist.	-420 Feb 10 j 00:37	16° $\mathring{\approx}$ 08'33	10.50299 AU	max. Earth dist.	-414 May 06 j 08:20	9° $\mathring{\text{B}}$ 06'13	9.93934 AU
morning rise	-420 Feb 27 j 12:40	18° $\mathring{\approx}$ 18'46		morning rise	-414 May 24 j 03:26	11° $\mathring{\text{B}}$ 26'00	
retrograde	-420 Jun 12 j 18:48	26° $\mathring{\approx}$ 11'49			-414 Jun 22 j 09:16	15° $\mathring{\text{B}}$	
opposition	-420 Aug 21 j 14:30	22° $\mathring{\approx}$ 45'24	-2°-12'-52	retrograde	-414 Sep 07 j 11:37	19° $\mathring{\text{B}}$ 53'40	
min. Earth dist.	-420 Aug 21 j 19:09	22° $\mathring{\approx}$ 44'29	8.43500 AU	opposition	-414 Nov 13 j 09:42	16° $\mathring{\text{B}}$ 22'57	-2°-4'-47
direct	-420 Oct 28 j 03:12	19° $\mathring{\approx}$ 23'36		min. Earth dist.	-414 Nov 13 j 03:02	16° $\mathring{\text{B}}$ 24'20	7.93705 AU
evening set	-419 Feb 05 j 10:53	26° $\mathring{\approx}$ 58'10			-414 Nov 30 j 10:53	15° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
				direct	-413 Jan 18 j 17:20	12° $\mathring{\text{B}}$ 53'41	
conjunction	-419 Feb 22 j 14:42	29° $\mathring{\approx}$ 07'32	-1°-56'-30		-413 Mar 08 j 01:29	15° $\mathring{\text{B}}$	
minimum elong	-419 Feb 22 j 14:39	29° $\mathring{\approx}$ 07'31	1°56'32	evening set	-413 May 03 j 08:40	21° $\mathring{\text{B}}$ 13'09	
max. Earth dist.	-419 Feb 22 j 09:14	29° $\mathring{\approx}$ 05'48	10.36734 AU				
	-419 Mar 01 j 12:43	0° $\mathring{\text{H}}$		conjunction	-413 May 21 j 12:25	23° $\mathring{\text{B}}$ 35'36	-1°-26'-49
morning rise	-419 Mar 11 j 23:17	1° $\mathring{\text{H}}$ 18'27		minimum elong	-413 May 21 j 12:28	23° $\mathring{\text{B}}$ 35'37	1°26'49
retrograde	-419 Jun 26 j 21:08	9° $\mathring{\text{H}}$ 22'28		max. Earth dist.	-413 May 21 j 22:11	23° $\mathring{\text{B}}$ 38'48	9.94107 AU

# Planetary Phenomena of Saturn from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:47, page 41

Attention, astronomical year style is used: The year -413 in astronomical counting style is the year 414 BCE in historical counting style.

morning rise	-413 Jun 08 j 16:52	25° $\text{U}$ 58'16		evening set	-407 Jul 28 j 13:54	14° $\text{Q}$ 08'17	
	-413 Jul 12 j 04:58	0° $\text{II}$			-407 Aug 04 j 15:25	15° $\text{Q}$	
retrograde	-413 Sep 22 j 04:40	4° $\text{II}$ 21'13					
opposition	-413 Nov 27 j 19:42	0° $\text{II}$ 51'12	-1°-30'-47	conjunction	-407 Aug 15 j 03:38	16° $\text{Q}$ 17'53	1°36'33
min. Earth dist.	-413 Nov 27 j 11:47	0° $\text{II}$ 52'52	7.95517 AU	minimum elong	-407 Aug 15 j 03:34	16° $\text{Q}$ 17'52	1°36'34
	-413 Dec 08 j 03:54	30° $\text{R}$ 8		max. Earth dist.	-407 Aug 15 j 11:24	16° $\text{Q}$ 20'17	10.51106 AU
direct	-412 Feb 02 j 09:58	27° $\text{U}$ 21'20		morning rise	-407 Sep 01 j 12:18	18° $\text{Q}$ 25'56	
	-412 Mar 28 j 08:26	0° $\text{II}$		retrograde	-407 Dec 10 j 14:14	25° $\text{Q}$ 50'41	
evening set	-412 May 17 j 17:35	5° $\text{II}$ 41'05		opposition	-406 Feb 16 j 01:23	22° $\text{Q}$ 29'44	2°11'49
				min. Earth dist.	-406 Feb 15 j 19:31	22° $\text{Q}$ 30'53	8.57888 AU
conjunction	-412 Jun 04 j 22:51	8° $\text{II}$ 03'21	0°-57'-11	direct	-406 Apr 27 j 00:50	19° $\text{Q}$ 03'16	
minimum elong	-412 Jun 04 j 22:54	8° $\text{II}$ 03'22	0°57'12	evening set	-406 Aug 10 j 20:41	26° $\text{Q}$ 45'12	
max. Earth dist.	-412 Jun 05 j 09:51	8° $\text{II}$ 06'57	9.97634 AU				
morning rise	-412 Jun 23 j 03:27	10° $\text{II}$ 25'23		conjunction	-406 Aug 28 j 04:59	28° $\text{Q}$ 51'28	1°56'17
retrograde	-412 Oct 05 j 16:03	18° $\text{II}$ 40'55		minimum elong	-406 Aug 28 j 04:55	28° $\text{Q}$ 51'28	1°56'17
opposition	-412 Dec 11 j 02:52	15° $\text{II}$ 12'00	0°-51'-22	max. Earth dist.	-406 Aug 28 j 11:03	28° $\text{Q}$ 53'20	10.64539 AU
min. Earth dist.	-412 Dec 10 j 18:30	15° $\text{II}$ 13'44	8.00590 AU		-406 Sep 06 j 13:38	0° $\text{np}$	
direct	-411 Feb 16 j 03:34	11° $\text{II}$ 41'51		morning rise	-406 Sep 14 j 08:08	0° $\text{np}$ 56'14	
evening set	-411 Jun 01 j 23:19	19° $\text{II}$ 59'20		retrograde	-406 Dec 22 j 23:02	8° $\text{np}$ 12'11	
				opposition	-405 Feb 28 j 20:08	4° $\text{np}$ 52'41	2°32'14
conjunction	-411 Jun 20 j 04:22	22° $\text{II}$ 20'25	0°-24'-20	min. Earth dist.	-405 Feb 28 j 16:20	4° $\text{np}$ 53'24	8.71132 AU
minimum elong	-411 Jun 20 j 04:23	22° $\text{II}$ 20'25	0°24'21	direct	-405 May 10 j 06:57	1° $\text{np}$ 27'31	
max. Earth dist.	-411 Jun 20 j 15:32	22° $\text{II}$ 24'02	10.04268 AU	evening set	-405 Aug 23 j 16:09	9° $\text{np}$ 00'42	
morning rise	-411 Jul 08 j 07:31	24° $\text{II}$ 40'50					
	-411 Aug 24 j 10:08	0° $\text{Q}$		conjunction	-405 Sep 09 j 19:13	11° $\text{np}$ 03'54	2°10'11
retrograde	-411 Oct 19 j 19:03	2° $\text{Q}$ 47'02		minimum elong	-405 Sep 09 j 19:10	11° $\text{np}$ 03'53	2°10'10
	-411 Dec 16 j 23:44	30° $\text{R}$ II		max. Earth dist.	-405 Sep 09 j 22:39	11° $\text{np}$ 04'56	10.77340 AU
opposition	-411 Dec 25 j 05:29	29° $\text{II}$ 19'31	0°-9'-27	morning rise	-405 Sep 26 j 17:31	13° $\text{np}$ 05'41	
min. Earth dist.	-411 Dec 24 j 21:20	29° $\text{II}$ 21'12	8.08579 AU	retrograde	-404 Jan 04 j 00:11	20° $\text{np}$ 14'04	
direct	-410 Mar 02 j 19:31	25° $\text{II}$ 49'29		opposition	-404 Mar 12 j 09:00	16° $\text{np}$ 55'46	2°45'18
asc. node	-410 Mar 20 j 11:47	26° $\text{II}$ 06'28		min. Earth dist.	-404 Mar 12 j 07:14	16° $\text{np}$ 56'06	8.83448 AU
	-410 May 13 j 10:49	0° $\text{Q}$		direct	-404 May 22 j 05:22	13° $\text{np}$ 31'56	
evening set	-410 Jun 16 j 23:14	4° $\text{Q}$ 02'30		evening set	-404 Sep 04 j 01:18	20° $\text{np}$ 56'45	
conjunction	-410 Jul 05 j 02:16	6° $\text{Q}$ 21'28	0°09'29	conjunction	-404 Sep 20 j 23:48	22° $\text{np}$ 57'17	2°18'05
minimum elong	-410 Jul 05 j 02:15	6° $\text{Q}$ 21'28	0°09'30	minimum elong	-404 Sep 20 j 23:47	22° $\text{np}$ 57'17	2°18'05
behind sun begin	-410 Jul 04 j 20:12	6° $\text{Q}$ 19'32		max. Earth dist.	-404 Sep 21 j 00:25	22° $\text{np}$ 57'28	10.88939 AU
behind sun end	-410 Jul 05 j 08:18	6° $\text{Q}$ 23'23		morning rise	-404 Oct 07 j 18:05	24° $\text{np}$ 56'33	
max. Earth dist.	-410 Jul 05 j 12:40	6° $\text{Q}$ 24'48	10.13557 AU		-404 Nov 26 j 21:28	0° $\text{Q}$	
morning rise	-410 Jul 23 j 02:18	8° $\text{Q}$ 39'27		retrograde	-403 Jan 14 j 19:42	1° $\text{Q}$ 58'43	
retrograde	-410 Nov 02 j 12:21	16° $\text{Q}$ 35'12			-403 Mar 06 j 18:05	30° $\text{R}$ np	
opposition	-409 Jan 08 j 02:19	13° $\text{Q}$ 09'18	0°32'03	opposition	-403 Mar 24 j 16:30	28° $\text{np}$ 41'20	2°51'02
min. Earth dist.	-409 Jan 07 j 18:23	13° $\text{Q}$ 10'56	8.18966 AU	min. Earth dist.	-403 Mar 24 j 16:10	28° $\text{np}$ 41'24	8.94278 AU
direct	-409 Mar 17 j 07:46	9° $\text{Q}$ 39'44		direct	-403 Jun 03 j 21:35	25° $\text{np}$ 18'48	
evening set	-409 Jul 01 j 14:41	17° $\text{Q}$ 46'29			-403 Aug 23 j 12:25	0° $\text{Q}$	
				evening set	-403 Sep 16 j 01:14	2° $\text{Q}$ 35'59	
conjunction	-409 Jul 19 j 14:10	20° $\text{Q}$ 02'40	0°42'00				
minimum elong	-409 Jul 19 j 14:08	20° $\text{Q}$ 02'40	0°42'01	conjunction	-403 Oct 02 j 20:05	4° $\text{Q}$ 34'20	2°20'06
max. Earth dist.	-409 Jul 19 j 23:43	20° $\text{Q}$ 05'42	10.24916 AU	minimum elong	-403 Oct 02 j 20:06	4° $\text{Q}$ 34'20	2°20'05
morning rise	-409 Aug 06 j 09:48	22° $\text{Q}$ 17'36		max. Earth dist.	-403 Oct 02 j 18:54	4° $\text{Q}$ 33'59	10.98814 AU
	-409 Nov 09 j 01:36	0° $\text{Q}$		morning rise	-403 Oct 19 j 11:05	6° $\text{Q}$ 31'34	
retrograde	-409 Nov 15 j 21:10	0° $\text{Q}$ 02'37		retrograde	-402 Jan 26 j 13:47	13° $\text{Q}$ 29'04	
	-409 Nov 22 j 17:41	30° $\text{R}$ Q		opposition	-402 Apr 05 j 20:02	10° $\text{Q}$ 12'20	2°49'46
opposition	-408 Jan 21 j 16:49	26° $\text{Q}$ 38'24	1°10'39	min. Earth dist.	-402 Apr 05 j 21:19	10° $\text{Q}$ 12'05	9.03129 AU
min. Earth dist.	-408 Jan 21 j 09:02	26° $\text{Q}$ 39'58	8.31118 AU	direct	-402 Jun 16 j 06:09	6° $\text{Q}$ 51'02	
direct	-408 Mar 30 j 12:59	23° $\text{Q}$ 09'38		evening set	-402 Sep 27 j 17:21	14° $\text{Q}$ 01'31	
	-408 Jul 05 j 08:30	0° $\text{Q}$					
evening set	-408 Jul 14 j 19:45	1° $\text{Q}$ 08'45		conjunction	-402 Oct 14 j 09:25	15° $\text{Q}$ 58'14	2°16'28
				minimum elong	-402 Oct 14 j 09:26	15° $\text{Q}$ 58'14	2°16'28
conjunction	-408 Aug 01 j 14:40	3° $\text{Q}$ 21'44	1°11'29	max. Earth dist.	-402 Oct 14 j 06:28	15° $\text{Q}$ 57'22	11.06522 AU
minimum elong	-408 Aug 01 j 14:37	3° $\text{Q}$ 21'43	1°11'30	morning rise	-402 Oct 30 j 22:04	17° $\text{Q}$ 54'02	
max. Earth dist.	-408 Aug 01 j 23:21	3° $\text{Q}$ 24'28	10.37669 AU	retrograde	-401 Feb 07 j 03:32	24° $\text{Q}$ 48'28	
morning rise	-408 Aug 19 j 05:02	5° $\text{Q}$ 33'16		opposition	-401 Apr 17 j 20:36	21° $\text{Q}$ 32'08	2°41'53
retrograde	-408 Nov 27 j 22:06	13° $\text{Q}$ 07'49		min. Earth dist.	-401 Apr 18 j 00:11	21° $\text{Q}$ 31'28	9.09644 AU
opposition	-407 Feb 03 j 00:29	9° $\text{Q}$ 45'16	1°44'22	direct	-401 Jun 28 j 07:27	18° $\text{Q}$ 11'54	
min. Earth dist.	-407 Feb 02 j 17:08	9° $\text{Q}$ 46'43	8.44328 AU	evening set	-401 Oct 09 j 03:37	25° $\text{Q}$ 16'58	
direct	-407 Apr 13 j 10:46	6° $\text{Q}$ 17'34					

Attention, astronomical year style is used: The year -401 in astronomical counting style is the year 402 BCE in historical counting style.

conjunction	-401 Oct 25 j 17:37	27° <u>♏</u> 12'35	2°07'35
minimum elong	-401 Oct 25 j 17:39	27° <u>♏</u> 12'35	2°07'36
max. Earth dist.	-401 Oct 25 j 12:02	27° <u>♏</u> 10'57	11.11802 AU
morning rise	-401 Nov 11 j 05:07	29° <u>♏</u> 07'31	
	-401 Nov 18 j 22:40	0° <u>♏</u>	
retrograde	-400 Feb 18 j 16:43	6° <u>♏</u> 00'31	
opposition	-400 Apr 28 j 19:05	2° <u>♏</u> 44'16	2°27'57
min. Earth dist.	-400 Apr 29 j 01:05	2° <u>♏</u> 43'10	9.13647 AU
	-400 Jun 11 j 17:53	30° <u>♏</u>	
direct	-400 Jul 09 j 06:11	29° <u>♏</u> 24'55	
	-400 Aug 05 j 10:14	0° <u>♏</u>	
evening set	-400 Oct 19 j 09:35	6° <u>♏</u> 25'51	

conjunction	-400 Nov 04 j 22:24	8° <u>♏</u> 20'53	1°53'55
minimum elong	-400 Nov 04 j 22:26	8° <u>♏</u> 20'54	1°53'55
max. Earth dist.	-400 Nov 04 j 14:28	8° <u>♏</u> 18'34	11.14544 AU
morning rise	-400 Nov 21 j 09:40	10° <u>♏</u> 15'30	

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 1

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

retrograde	-400 Feb 18 j 16:43	6°ℳ00'31		conjunction	-395 Dec 30 j 05:51	4°𐌹32'03	0°-4'-51
opposition	-400 Apr 28 j 19:05	2°ℳ44'16	2°27'57	minimum elong	-395 Dec 30 j 05:50	4°𐌹32'03	0°04'52
min. Earth dist.	-400 Apr 29 j 01:05	2°ℳ43'10	9.13647 AU	behind sun begin	-395 Dec 29 j 23:01	4°𐌹30'02	
	-400 Jun 11 j 17:53	30°𐌹𐌵		behind sun end	-395 Dec 30 j 12:39	4°𐌹34'04	
direct	-400 Jul 09 j 06:11	29°𐌹24'55		max. Earth dist.	-395 Dec 29 j 19:50	4°𐌹29'04	10.90988 AU
	-400 Aug 05 j 10:14	0°ℳ		morning rise	-394 Jan 16 j 00:41	6°𐌹31'47	
evening set	-400 Oct 19 j 09:35	6°ℳ25'51		retrograde	-394 Apr 29 j 07:25	13°𐌹49'33	
				opposition	-394 Jul 09 j 06:09	10°𐌹27'54	0°-23'-32
conjunction	-400 Nov 04 j 22:24	8°ℳ20'53	1°53'55	min. Earth dist.	-394 Jul 09 j 14:19	10°𐌹26'22	8.85651 AU
minimum elong	-400 Nov 04 j 22:26	8°ℳ20'54	1°53'55	direct	-394 Sep 16 j 18:14	7°𐌹08'51	
max. Earth dist.	-400 Nov 04 j 14:28	8°ℳ18'34	11.14544 AU	evening set	-394 Dec 25 j 07:21	14°𐌹15'54	
morning rise	-400 Nov 21 j 09:40	10°ℳ15'30					
	-399 Jan 08 j 00:06	15°ℳ		conjunction	-393 Jan 11 j 01:44	16°𐌹16'45	0°-33'-10
retrograde	-399 Mar 01 j 05:35	17°ℳ08'39		minimum elong	-393 Jan 11 j 01:43	16°𐌹16'44	0°33'12
	-399 Apr 24 j 22:13	15°𐌹ℳ		max. Earth dist.	-393 Jan 10 j 16:33	16°𐌹13'58	10.80027 AU
opposition	-399 May 10 j 16:44	13°ℳ52'10	2°08'34	morning rise	-393 Jan 27 j 23:14	18°𐌹18'38	
min. Earth dist.	-399 May 10 j 23:49	13°ℳ50'52	9.15061 AU	retrograde	-393 May 12 j 03:42	25°𐌹45'45	
direct	-399 Jul 21 j 00:59	10°ℳ33'28		opposition	-393 Jul 21 j 21:16	22°𐌹22'34	0°-58'-13
	-399 Oct 07 j 07:40	15°ℳ		min. Earth dist.	-393 Jul 22 j 04:24	22°𐌹21'13	8.73978 AU
evening set	-399 Oct 30 j 12:56	17°ℳ31'35		direct	-393 Sep 28 j 20:04	19°𐌹02'48	
				evening set	-392 Jan 06 j 09:40	26°𐌹16'25	
conjunction	-399 Nov 16 j 01:27	19°ℳ26'33	1°36'01				
minimum elong	-399 Nov 16 j 01:29	19°ℳ26'34	1°36'00	conjunction	-392 Jan 23 j 06:14	28°𐌹19'30	-1°00'-44
max. Earth dist.	-399 Nov 15 j 16:54	19°ℳ24'03	11.14694 AU	minimum elong	-392 Jan 23 j 06:12	28°𐌹19'29	1°00'46
morning rise	-399 Dec 02 j 13:03	21°ℳ21'19		max. Earth dist.	-392 Jan 22 j 21:14	28°𐌹16'44	10.67752 AU
retrograde	-398 Mar 12 j 21:50	28°ℳ16'15			-392 Feb 05 j 23:40	0°≈	
opposition	-398 May 22 j 14:37	24°ℳ59'12	1°44'26	morning rise	-392 Feb 09 j 06:44	0°≈23'48	
min. Earth dist.	-398 May 22 j 22:05	24°ℳ57'50	9.13877 AU	retrograde	-392 May 24 j 09:09	8°≈01'17	
direct	-398 Aug 01 j 19:04	21°ℳ40'55		opposition	-392 Aug 02 j 18:36	4°≈36'34	-1°-31'-16
evening set	-398 Nov 10 j 15:36	28°ℳ37'39		min. Earth dist.	-392 Aug 03 j 01:05	4°≈35'19	8.61253 AU
	-398 Nov 22 j 11:43	0°𐌹		direct	-392 Oct 10 j 02:27	1°≈15'53	
				evening set	-391 Jan 17 j 21:37	8°≈37'30	
conjunction	-398 Nov 27 j 04:25	0°𐌹33'00	1°14'28				
minimum elong	-398 Nov 27 j 04:27	0°𐌹33'01	1°14'27	conjunction	-391 Feb 03 j 20:46	10°≈43'02	-1°-26'-12
max. Earth dist.	-398 Nov 26 j 19:27	0°𐌹30'22	11.12279 AU	minimum elong	-391 Feb 03 j 20:43	10°≈43'01	1°26'14
morning rise	-398 Dec 13 j 17:03	2°𐌹28'23		max. Earth dist.	-391 Feb 03 j 12:38	10°≈40'31	10.54677 AU
retrograde	-397 Mar 24 j 17:09	9°𐌹26'39		morning rise	-391 Feb 21 j 00:29	12°≈50'00	
opposition	-397 Jun 03 j 13:51	6°𐌹08'47	1°16'15		-391 Mar 11 j 10:27	15°≈	
min. Earth dist.	-397 Jun 03 j 22:04	6°𐌹07'16	9.10170 AU	retrograde	-391 Jun 06 j 21:41	20°≈38'30	
direct	-397 Aug 13 j 09:58	2°𐌹50'39		opposition	-391 Aug 15 j 23:00	17°≈12'16	-2°-1'-2
evening set	-397 Nov 21 j 19:23	9°𐌹47'32		min. Earth dist.	-391 Aug 16 j 04:28	17°≈11'12	8.48033 AU
					-391 Sep 15 j 18:54	15°𐌹≈	
conjunction	-397 Dec 08 j 08:53	11°𐌹43'41	0°49'58	direct	-391 Oct 22 j 17:31	13°≈50'31	
minimum elong	-397 Dec 08 j 08:54	11°𐌹43'41	0°49'57		-391 Nov 27 j 20:48	15°≈	
max. Earth dist.	-397 Dec 07 j 22:27	11°𐌹40'37	11.07399 AU	evening set	-390 Jan 30 j 20:18	21°≈21'14	
morning rise	-397 Dec 24 j 23:17	13°𐌹40'09					
retrograde	-396 Apr 04 j 14:48	20°𐌹43'21		conjunction	-390 Feb 16 j 22:33	23°≈29'27	-1°-48'-9
opposition	-396 Jun 14 j 15:29	17°𐌹24'24	0°44'52	minimum elong	-390 Feb 16 j 22:31	23°≈29'26	1°48'10
min. Earth dist.	-396 Jun 15 j 00:46	17°𐌹22'42	9.04076 AU	max. Earth dist.	-390 Feb 16 j 16:46	23°≈27'38	10.41400 AU
direct	-396 Aug 24 j 01:40	14°𐌹06'10		morning rise	-390 Mar 06 j 05:40	25°≈39'13	
evening set	-396 Dec 02 j 02:04	21°𐌹04'50			-390 Apr 13 j 17:58	0°𐌹	
				retrograde	-390 Jun 20 j 19:32	3°𐌹38'50	
conjunction	-396 Dec 18 j 16:43	23°𐌹02'11	0°23'16	opposition	-390 Aug 29 j 10:28	0°𐌹11'09	-2°-25'-40
minimum elong	-396 Dec 18 j 16:44	23°𐌹02'11	0°23'15	min. Earth dist.	-390 Aug 29 j 14:06	0°𐌹10'26	8.34951 AU
max. Earth dist.	-396 Dec 18 j 05:47	22°𐌹58'57	11.00220 AU		-390 Aug 31 j 18:53	30°𐌹≈	
morning rise	-395 Jan 04 j 09:15	25°𐌹00'06		direct	-390 Nov 04 j 17:09	26°≈48'16	
	-395 Feb 23 j 01:27	0°𐌹			-389 Jan 04 j 18:02	0°𐌹	
retrograde	-395 Apr 16 j 19:47	2°𐌹09'50		evening set	-389 Feb 13 j 06:49	4°𐌹28'45	
	-395 Jun 10 j 16:56	30°𐌹𐌹					
opposition	-395 Jun 26 j 20:30	28°𐌹49'37	0°11'14	conjunction	-389 Mar 02 j 12:41	6°𐌹39'49	-2°-5'-5
min. Earth dist.	-395 Jun 27 j 05:49	28°𐌹47'54	8.95805 AU	minimum elong	-389 Mar 02 j 12:39	6°𐌹39'48	2°05'07
direct	-395 Sep 04 j 21:15	25°𐌹31'04		max. Earth dist.	-389 Mar 02 j 09:46	6°𐌹38'53	10.28586 AU
desc. node	-395 Oct 27 j 12:27	27°𐌹44'48		morning rise	-389 Mar 19 j 23:22	8°𐌹52'27	
	-395 Nov 20 j 16:22	0°𐌹		retrograde	-389 Jul 05 j 02:41	17°𐌹02'27	
evening set	-395 Dec 13 j 13:28	2°𐌹33'07		opposition	-389 Sep 12 j 04:41	13°𐌹33'33	-2°-43'-16

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 2

Attention, astronomical year style is used: The year -389 in astronomical counting style is the year 390 BCE in historical counting style.

min. Earth dist.	-389 Sep 12 j 05:51	13° <del>✕</del> 33'19	8.22688 AU	direct	-382 Feb 10 j 00:25	5° <del>Π</del> 34'12	
direct	-389 Nov 17 j 23:55	10° <del>✕</del> 09'27		evening set	-382 May 26 j 14:06	13° <del>Π</del> 52'35	
evening set	-388 Feb 27 j 05:13	17° <del>✕</del> 59'54					
				conjunction	-382 Jun 13 j 19:26	16° <del>Π</del> 14'09	0°-39'-10
conjunction	-388 Mar 15 j 15:03	20° <del>✕</del> 13'48	-2°-15'-37	minimum elong	-382 Jun 13 j 19:28	16° <del>Π</del> 14'09	0°39'10
minimum elong	-388 Mar 15 j 15:02	20° <del>✕</del> 13'48	2°15'39	max. Earth dist.	-382 Jun 14 j 05:44	16° <del>Π</del> 17'30	10.02241 AU
max. Earth dist.	-388 Mar 15 j 14:55	20° <del>✕</del> 13'46	10.16949 AU	morning rise	-382 Jul 01 j 23:28	18° <del>Π</del> 35'17	
morning rise	-388 Apr 02 j 05:30	22° <del>✕</del> 29'15		retrograde	-382 Oct 13 j 21:54	26° <del>Π</del> 45'35	
	-388 Jun 18 j 10:29	0° <del>Υ</del>		opposition	-382 Dec 19 j 08:44	23° <del>Π</del> 17'58	0°-28'-9
retrograde	-388 Jul 18 j 17:50	0° <del>Υ</del> 48'07		min. Earth dist.	-382 Dec 19 j 00:26	23° <del>Π</del> 19'41	8.05830 AU
	-388 Aug 18 j 03:30	30° <del>✕</del>		direct	-381 Feb 24 j 17:12	19° <del>Π</del> 48'24	
opposition	-388 Sep 25 j 05:25	27° <del>✕</del> 18'16	-2°-52'-9	evening set	-381 Jun 10 j 17:07	28° <del>Π</del> 03'29	
min. Earth dist.	-388 Sep 25 j 04:08	27° <del>✕</del> 18'32	8.11950 AU		-381 Jun 25 j 20:50	0° <del>☾</del>	
direct	-388 Nov 30 j 14:52	23° <del>✕</del> 52'59					
	-387 Feb 25 j 11:57	0° <del>Υ</del>		conjunction	-381 Jun 28 j 21:18	0° <del>☾</del> 23'25	0°-5'-33
evening set	-387 Mar 12 j 14:43	1° <del>Υ</del> 52'51		minimum elong	-381 Jun 28 j 21:19	0° <del>☾</del> 23'25	0°05'33
				behind sun begin	-381 Jun 28 j 14:16	0° <del>☾</del> 21'10	
conjunction	-387 Mar 30 j 04:49	4° <del>Υ</del> 09'28	-2°-18'-35	behind sun end	-381 Jun 29 j 04:22	0° <del>☾</del> 25'40	
minimum elong	-387 Mar 30 j 04:49	4° <del>Υ</del> 09'28	2°18'36	max. Earth dist.	-381 Jun 29 j 07:53	0° <del>☾</del> 26'49	10.10075 AU
max. Earth dist.	-387 Mar 30 j 07:22	4° <del>Υ</del> 10'18	10.07201 AU	morning rise	-381 Jul 16 j 22:50	2° <del>☾</del> 42'30	
morning rise	-387 Apr 16 j 23:15	6° <del>Υ</del> 27'32		asc. node	-381 Aug 29 j 16:42	7° <del>☾</del> 40'41	
retrograde	-387 Aug 02 j 13:06	14° <del>Υ</del> 52'54		retrograde	-381 Oct 27 j 20:41	10° <del>☾</del> 43'05	
opposition	-387 Oct 09 j 11:28	11° <del>Υ</del> 22'27	-2°-51'00	opposition	-380 Jan 02 j 08:32	7° <del>☾</del> 16'56	0°13'52
min. Earth dist.	-387 Oct 09 j 08:06	11° <del>Υ</del> 23'09	8.03410 AU	min. Earth dist.	-380 Jan 02 j 00:24	7° <del>☾</del> 18'35	8.14815 AU
direct	-387 Dec 14 j 15:16	7° <del>Υ</del> 56'01		direct	-380 Mar 10 j 06:15	3° <del>☾</del> 47'37	
evening set	-386 Mar 27 j 10:14	16° <del>Υ</del> 04'05		evening set	-380 Jun 24 j 12:56	11° <del>☾</del> 57'25	
conjunction	-386 Apr 14 j 04:47	18° <del>Υ</del> 23'07	-2°-13'-16	conjunction	-380 Jul 12 j 14:19	14° <del>☾</del> 14'56	0°27'53
minimum elong	-386 Apr 14 j 04:49	18° <del>Υ</del> 23'08	2°13'16	minimum elong	-380 Jul 12 j 14:17	14° <del>☾</del> 14'56	0°27'53
max. Earth dist.	-386 Apr 14 j 09:34	18° <del>Υ</del> 24'41	9.99976 AU	max. Earth dist.	-380 Jul 13 j 00:22	14° <del>☾</del> 18'09	10.20144 AU
morning rise	-386 May 02 j 03:06	20° <del>Υ</del> 43'22		morning rise	-380 Jul 30 j 11:55	16° <del>☾</del> 31'16	
retrograde	-386 Aug 17 j 10:35	29° <del>Υ</del> 12'05		retrograde	-380 Nov 09 j 11:24	24° <del>☾</del> 21'24	
opposition	-386 Oct 23 j 21:02	25° <del>Υ</del> 41'28	-2°-39'-17	opposition	-379 Jan 15 j 02:19	20° <del>☾</del> 56'47	0°54'05
min. Earth dist.	-386 Oct 23 j 16:17	25° <del>Υ</del> 42'27	7.97629 AU	min. Earth dist.	-379 Jan 14 j 19:05	20° <del>☾</del> 58'15	8.25802 AU
direct	-386 Dec 28 j 23:05	22° <del>Υ</del> 13'58		direct	-379 Mar 24 j 13:34	17° <del>☾</del> 27'57	
	-385 Apr 07 j 21:05	0° <del>♄</del>		evening set	-379 Jul 08 j 23:28	25° <del>☾</del> 30'55	
evening set	-385 Apr 11 j 13:26	0° <del>♄</del> 28'21					
				conjunction	-379 Jul 26 j 20:37	27° <del>☾</del> 45'27	0°58'57
conjunction	-385 Apr 29 j 12:12	2° <del>♄</del> 49'15	-1°-59'-36	minimum elong	-379 Jul 26 j 20:35	27° <del>☾</del> 45'26	0°58'58
minimum elong	-385 Apr 29 j 12:16	2° <del>♄</del> 49'16	1°59'37	max. Earth dist.	-379 Jul 27 j 05:15	27° <del>☾</del> 48'10	10.31892 AU
max. Earth dist.	-385 Apr 29 j 19:05	2° <del>♄</del> 51'31	9.95750 AU	morning rise	-379 Aug 13 j 13:21	29° <del>☾</del> 58'34	
morning rise	-385 May 17 j 13:51	5° <del>♄</del> 11'04			-379 Aug 13 j 17:59	0° <del>♁</del>	
retrograde	-385 Sep 01 j 07:47	13° <del>♄</del> 39'40		retrograde	-379 Nov 22 j 16:25	7° <del>♁</del> 38'08	
opposition	-385 Nov 07 j 08:25	10° <del>♄</del> 09'16	-2°-17'-21	opposition	-378 Jan 28 j 13:34	4° <del>♁</del> 15'04	1°30'13
min. Earth dist.	-385 Nov 07 j 02:25	10° <del>♄</del> 10'31	7.94982 AU	min. Earth dist.	-378 Jan 28 j 07:36	4° <del>♁</del> 16'15	8.38165 AU
direct	-384 Jan 12 j 12:38	6° <del>♄</del> 40'52		direct	-378 Apr 07 j 16:04	0° <del>♁</del> 46'59	
evening set	-384 Apr 25 j 21:11	14° <del>♄</del> 59'05		evening set	-378 Jul 22 j 23:15	8° <del>♁</del> 42'00	
	-384 Apr 26 j 00:01	15° <del>♄</del>					
				conjunction	-378 Aug 09 j 15:16	10° <del>♁</del> 53'13	1°26'08
conjunction	-384 May 13 j 23:27	17° <del>♄</del> 21'08	-1°-38'-19	minimum elong	-378 Aug 09 j 15:13	10° <del>♁</del> 53'12	1°26'10
minimum elong	-384 May 13 j 23:31	17° <del>♄</del> 21'09	1°38'20	max. Earth dist.	-378 Aug 09 j 21:53	10° <del>♁</del> 55'16	10.44654 AU
max. Earth dist.	-384 May 14 j 08:12	17° <del>♄</del> 24'01	9.94776 AU	morning rise	-378 Aug 27 j 02:34	13° <del>♁</del> 02'56	
morning rise	-384 Jun 01 j 03:23	19° <del>♄</del> 43'39			-378 Sep 12 j 14:02	15° <del>♁</del>	
retrograde	-384 Sep 15 j 02:08	28° <del>♄</del> 08'45		retrograde	-378 Dec 05 j 10:47	20° <del>♁</del> 32'23	
opposition	-384 Nov 20 j 19:24	24° <del>♄</del> 38'56	-1°-46'-37	opposition	-377 Feb 10 j 17:59	17° <del>♁</del> 10'47	2°00'37
min. Earth dist.	-384 Nov 20 j 12:16	24° <del>♄</del> 40'25	7.95594 AU	min. Earth dist.	-377 Feb 10 j 13:04	17° <del>♁</del> 11'45	8.51223 AU
direct	-383 Jan 26 j 05:55	21° <del>♄</del> 09'50			-377 Mar 12 j 19:24	15° <del>♁</del>	
evening set	-383 May 11 j 06:27	29° <del>♄</del> 29'19		direct	-377 Apr 21 j 11:50	13° <del>♁</del> 43'40	
	-383 May 15 j 05:37	0° <del>♁</del>			-377 May 30 j 18:52	15° <del>♁</del>	
				evening set	-377 Aug 05 j 11:29	21° <del>♁</del> 30'05	
conjunction	-383 May 29 j 11:03	1° <del>♁</del> 51'35	-1°-10'-51	conjunction	-377 Aug 22 j 22:07	23° <del>♁</del> 37'56	1°48'21
minimum elong	-383 May 29 j 11:06	1° <del>♁</del> 51'36	1°10'51	minimum elong	-377 Aug 22 j 22:04	23° <del>♁</del> 37'55	1°48'21
max. Earth dist.	-383 May 29 j 20:55	1° <del>♁</del> 54'49	9.97031 AU	max. Earth dist.	-377 Aug 23 j 02:50	23° <del>♁</del> 39'23	10.57763 AU
morning rise	-383 Jun 16 j 15:53	4° <del>♁</del> 13'53		morning rise	-377 Sep 09 j 03:55	25° <del>♁</del> 44'16	
retrograde	-383 Sep 29 j 15:23	12° <del>♁</del> 32'36			-377 Oct 18 j 03:49	0° <del>♁</del>	
opposition	-383 Dec 05 j 03:55	9° <del>♁</del> 03'43	-1°-9'-18	retrograde	-377 Dec 17 j 22:30	3° <del>♁</del> 04'31	
min. Earth dist.	-383 Dec 04 j 20:06	9° <del>♁</del> 05'20	7.99313 AU				



## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 3

Attention, astronomical year style is used: The year -376 in astronomical counting style is the year 377 BCE in historical counting style.

	-376 Feb 20 j 06:17	30° $\mathbb{R}$ $\Omega$		min. Earth dist.	-370 May 06 j 01:31	9° $\mathbb{M}$ 14'21	9.14400 AU
opposition	-376 Feb 23 j 15:42	29° $\mathbb{Q}$ 44'13	2°24'15	direct	-370 Jul 16 j 07:07	5° $\mathbb{M}$ 55'59	
min. Earth dist.	-376 Feb 23 j 11:30	29° $\mathbb{Q}$ 45'02	8.64303 AU	evening set	-370 Oct 26 j 01:13	12° $\mathbb{M}$ 54'55	
direct	-376 May 03 j 22:49	26° $\mathbb{Q}$ 18'13					
	-376 Jul 12 j 15:31	0° $\mathbb{M}$		conjunction	-370 Nov 11 j 13:49	14° $\mathbb{M}$ 49'49	1°44'25
evening set	-376 Aug 17 j 12:02	3° $\mathbb{M}$ 55'47		minimum elong	-370 Nov 11 j 13:51	14° $\mathbb{M}$ 49'50	1°44'25
				max. Earth dist.	-370 Nov 11 j 07:21	14° $\mathbb{M}$ 47'56	11.14934 AU
conjunction	-376 Sep 03 j 17:32	6° $\mathbb{M}$ 00'29	2°04'52		-370 Nov 13 j 00:43	15° $\mathbb{M}$	
minimum elong	-376 Sep 03 j 17:29	6° $\mathbb{M}$ 00'28	2°04'52	morning rise	-370 Nov 28 j 01:08	16° $\mathbb{M}$ 44'24	
max. Earth dist.	-376 Sep 03 j 21:08	6° $\mathbb{M}$ 01'34	10.70570 AU	retrograde	-369 Mar 08 j 03:05	23° $\mathbb{M}$ 37'57	
morning rise	-376 Sep 20 j 18:06	8° $\mathbb{M}$ 03'42		opposition	-369 May 17 j 18:13	20° $\mathbb{M}$ 21'02	1°55'39
retrograde	-376 Dec 29 j 04:13	15° $\mathbb{M}$ 15'48		min. Earth dist.	-369 May 18 j 00:34	20° $\mathbb{M}$ 19'52	9.15062 AU
opposition	-375 Mar 07 j 07:12	11° $\mathbb{M}$ 56'38	2°40'36	direct	-369 Jul 28 j 00:02	17° $\mathbb{M}$ 02'30	
min. Earth dist.	-375 Mar 07 j 04:16	11° $\mathbb{M}$ 57'12	8.76775 AU	evening set	-369 Nov 06 j 03:40	23° $\mathbb{M}$ 59'13	
direct	-375 May 16 j 23:56	8° $\mathbb{M}$ 31'50					
evening set	-375 Aug 30 j 01:53	16° $\mathbb{M}$ 00'49		conjunction	-369 Nov 22 j 16:07	25° $\mathbb{M}$ 54'13	1°24'24
				minimum elong	-369 Nov 22 j 16:10	25° $\mathbb{M}$ 54'14	1°24'24
conjunction	-375 Sep 16 j 02:36	18° $\mathbb{M}$ 02'41	2°15'26	max. Earth dist.	-369 Nov 22 j 08:04	25° $\mathbb{M}$ 51'52	11.14370 AU
minimum elong	-375 Sep 16 j 02:35	18° $\mathbb{M}$ 02'40	2°15'25	morning rise	-369 Dec 09 j 04:21	27° $\mathbb{M}$ 49'10	
max. Earth dist.	-375 Sep 16 j 04:49	18° $\mathbb{M}$ 03'21	10.82488 AU		-369 Dec 29 j 00:16	0° $\mathbb{Z}$	
morning rise	-375 Oct 02 j 22:34	20° $\mathbb{M}$ 03'10		retrograde	-368 Mar 18 j 19:16	4° $\mathbb{Z}$ 45'06	
retrograde	-374 Jan 10 j 02:21	27° $\mathbb{M}$ 08'25		opposition	-368 May 28 j 16:03	1° $\mathbb{Z}$ 27'42	1°29'09
opposition	-374 Mar 19 j 17:13	23° $\mathbb{M}$ 50'12	2°49'34	min. Earth dist.	-368 May 28 j 23:17	1° $\mathbb{Z}$ 26'22	9.13195 AU
min. Earth dist.	-374 Mar 19 j 16:20	23° $\mathbb{M}$ 50'22	8.88103 AU		-368 Jun 18 j 08:18	30° $\mathbb{R}$ $\mathbb{M}$	
direct	-374 May 29 j 18:44	20° $\mathbb{M}$ 26'37		direct	-368 Aug 07 j 16:15	28° $\mathbb{M}$ 09'38	
evening set	-374 Sep 11 j 05:56	27° $\mathbb{M}$ 47'36			-368 Sep 25 j 03:14	0° $\mathbb{Z}$	
				evening set	-368 Nov 16 j 06:15	5° $\mathbb{Z}$ 05'39	
conjunction	-374 Sep 28 j 02:27	29° $\mathbb{M}$ 47'02	2°20'01				
minimum elong	-374 Sep 28 j 02:27	29° $\mathbb{M}$ 47'02	2°20'00	conjunction	-368 Dec 02 j 19:20	7° $\mathbb{Z}$ 01'12	1°01'08
max. Earth dist.	-374 Sep 28 j 02:23	29° $\mathbb{M}$ 47'01	10.93042 AU	minimum elong	-368 Dec 02 j 19:22	7° $\mathbb{Z}$ 01'12	1°01'08
	-374 Sep 29 j 22:04	0° $\mathbb{Z}$		max. Earth dist.	-368 Dec 02 j 11:10	6° $\mathbb{Z}$ 58'48	11.11295 AU
morning rise	-374 Oct 14 j 18:49	1° $\mathbb{Z}$ 45'16		morning rise	-368 Dec 19 j 08:51	8° $\mathbb{Z}$ 56'57	
retrograde	-373 Jan 21 j 20:38	8° $\mathbb{Z}$ 45'06		retrograde	-367 Mar 30 j 15:44	15° $\mathbb{Z}$ 56'55	
opposition	-373 Mar 31 j 22:42	5° $\mathbb{Z}$ 27'38	2°51'19	opposition	-367 Jun 09 j 15:51	12° $\mathbb{Z}$ 38'45	0°59'06
min. Earth dist.	-373 Mar 31 j 23:52	5° $\mathbb{Z}$ 27'24	8.97852 AU	min. Earth dist.	-367 Jun 09 j 22:52	12° $\mathbb{Z}$ 37'27	9.08851 AU
direct	-373 Jun 11 j 06:15	2° $\mathbb{Z}$ 05'16		direct	-367 Aug 19 j 08:02	9° $\mathbb{Z}$ 20'56	
evening set	-373 Sep 23 j 01:20	9° $\mathbb{Z}$ 19'01		evening set	-367 Nov 27 j 10:51	16° $\mathbb{Z}$ 17'46	
conjunction	-373 Oct 09 j 18:30	11° $\mathbb{Z}$ 16'32	2°18'49	conjunction	-367 Dec 14 j 00:57	18° $\mathbb{Z}$ 14'17	0°35'21
minimum elong	-373 Oct 09 j 18:31	11° $\mathbb{Z}$ 16'33	2°18'48	minimum elong	-367 Dec 14 j 00:58	18° $\mathbb{Z}$ 14'18	0°35'21
max. Earth dist.	-373 Oct 09 j 15:57	11° $\mathbb{Z}$ 15'47	11.01843 AU	max. Earth dist.	-367 Dec 13 j 16:42	18° $\mathbb{Z}$ 11'51	11.05799 AU
morning rise	-373 Oct 26 j 08:19	13° $\mathbb{Z}$ 13'05		morning rise	-367 Dec 30 j 16:12	20° $\mathbb{Z}$ 11'14	
retrograde	-372 Feb 02 j 10:09	20° $\mathbb{Z}$ 08'59		retrograde	-366 Apr 11 j 18:48	27° $\mathbb{Z}$ 16'49	
opposition	-372 Apr 12 j 00:21	16° $\mathbb{Z}$ 52'00	2°46'16	opposition	-366 Jun 21 j 18:43	23° $\mathbb{Z}$ 57'41	0°26'25
min. Earth dist.	-372 Apr 12 j 02:41	16° $\mathbb{Z}$ 51'34	9.05656 AU	min. Earth dist.	-366 Jun 22 j 01:57	23° $\mathbb{Z}$ 56'21	9.02177 AU
direct	-372 Jun 22 j 11:18	13° $\mathbb{Z}$ 30'48		direct	-366 Aug 31 j 00:25	20° $\mathbb{Z}$ 39'52	
evening set	-372 Oct 03 j 13:53	20° $\mathbb{Z}$ 38'24		evening set	-366 Dec 08 j 19:27	27° $\mathbb{Z}$ 39'06	
conjunction	-372 Oct 20 j 04:46	22° $\mathbb{Z}$ 34'31	2°12'11	conjunction	-366 Dec 25 j 10:51	29° $\mathbb{Z}$ 36'58	0°07'53
minimum elong	-372 Oct 20 j 04:48	22° $\mathbb{Z}$ 34'32	2°12'10	minimum elong	-366 Dec 25 j 10:51	29° $\mathbb{Z}$ 36'58	0°07'53
max. Earth dist.	-372 Oct 20 j 00:59	22° $\mathbb{Z}$ 33'25	11.08569 AU	behind sun begin	-366 Dec 25 j 04:34	29° $\mathbb{Z}$ 35'07	
morning rise	-372 Nov 05 j 16:51	24° $\mathbb{Z}$ 29'53		behind sun end	-366 Dec 25 j 17:08	29° $\mathbb{Z}$ 38'49	
	-371 Jan 02 j 14:41	0° $\mathbb{M}$		max. Earth dist.	-366 Dec 25 j 01:40	29° $\mathbb{Z}$ 34'15	10.98069 AU
retrograde	-371 Feb 13 j 00:19	1° $\mathbb{M}$ 23'25			-366 Dec 28 j 16:22	0° $\mathbb{Z}$	
	-371 Mar 27 j 15:48	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-365 Jan 11 j 04:26	1° $\mathbb{Z}$ 35'31	
opposition	-371 Apr 23 j 23:13	28° $\mathbb{Z}$ 06'42	2°34'53	desc. node	-365 Apr 09 j 03:20	8° $\mathbb{Z}$ 37'22	
min. Earth dist.	-371 Apr 24 j 02:22	28° $\mathbb{Z}$ 06'07	9.11233 AU	retrograde	-365 Apr 24 j 01:32	8° $\mathbb{Z}$ 48'11	
direct	-371 Jul 04 j 12:30	24° $\mathbb{Z}$ 46'33		opposition	-365 Jul 04 j 01:28	5° $\mathbb{Z}$ 27'51	0°-7'-53
	-371 Sep 28 j 11:23	0° $\mathbb{M}$		min. Earth dist.	-365 Jul 04 j 09:19	5° $\mathbb{Z}$ 26'24	8.93398 AU
evening set	-371 Oct 14 j 21:17	1° $\mathbb{M}$ 49'11		direct	-365 Sep 11 j 18:20	2° $\mathbb{Z}$ 09'43	
				evening set	-365 Dec 20 j 09:38	9° $\mathbb{Z}$ 13'03	
conjunction	-371 Oct 31 j 10:43	3° $\mathbb{M}$ 44'27	2°00'32				
minimum elong	-371 Oct 31 j 10:46	3° $\mathbb{M}$ 44'28	2°00'32	conjunction	-364 Jan 06 j 02:45	11° $\mathbb{Z}$ 12'36	0°-20'-27
max. Earth dist.	-371 Oct 31 j 06:10	3° $\mathbb{M}$ 43'07	11.12981 AU	minimum elong	-364 Jan 06 j 02:44	11° $\mathbb{Z}$ 12'36	0°20'28
morning rise	-371 Nov 16 j 21:54	5° $\mathbb{M}$ 39'09		max. Earth dist.	-364 Jan 05 j 17:04	11° $\mathbb{Z}$ 09'42	10.88352 AU
retrograde	-370 Feb 24 j 13:48	12° $\mathbb{M}$ 31'53		morning rise	-364 Jan 22 j 22:57	13° $\mathbb{Z}$ 13'05	
opposition	-370 May 05 j 20:53	9° $\mathbb{M}$ 15'12	2°17'48	retrograde	-364 May 05 j 16:03	20° $\mathbb{Z}$ 34'15	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 4

Attention, astronomical year style is used: The year -364 in astronomical counting style is the year 365 BCE in historical counting style.

opposition	-364 Jul 15 j 13:07	17°♄12'33	0°-42'-38	retrograde	-358 Jul 26 j 20:14	8°♄25'49	
min. Earth dist.	-364 Jul 15 j 21:08	17°♄11'02	8.82785 AU	opposition	-358 Oct 03 j 02:48	4°♄55'44	-2°-52'-51
direct	-364 Sep 22 j 18:27	13°♄53'50		min. Earth dist.	-358 Oct 03 j 02:28	4°♄55'48	8.08428 AU
evening set	-364 Dec 31 j 06:57	21°♄02'49		direct	-358 Dec 08 j 11:12	1°♄29'50	
				evening set	-357 Mar 20 j 18:10	9°♄33'10	
conjunction	-363 Jan 17 j 02:13	23°♄04'23	0°-48'-26	conjunction	-357 Apr 07 j 10:32	11°♄50'53	-2°-16'-54
minimum elong	-363 Jan 17 j 02:12	23°♄04'22	0°48'27	minimum elong	-357 Apr 07 j 10:33	11°♄50'53	2°16'55
max. Earth dist.	-363 Jan 16 j 17:29	23°♄01'44	10.76934 AU	max. Earth dist.	-357 Apr 07 j 12:45	11°♄51'36	10.04000 AU
morning rise	-363 Feb 03 j 01:06	25°♄07'05		morning rise	-357 Apr 25 j 06:53	14°♄09'54	
	-363 Mar 21 j 12:00	0°♄		retrograde	-357 Aug 10 j 15:32	22°♄36'34	
retrograde	-363 May 18 j 16:03	2°♄38'02		opposition	-357 Oct 17 j 09:44	19°♄05'52	-2°-46'-15
	-363 Jul 18 j 06:48	30°♄♄		min. Earth dist.	-357 Oct 17 j 06:58	19°♄06'26	8.00585 AU
opposition	-363 Jul 28 j 06:31	29°♄14'48	-1°-16'-28	direct	-357 Dec 22 j 14:08	15°♄38'40	
min. Earth dist.	-363 Jul 28 j 13:34	29°♄13'28	8.70669 AU	evening set	-356 Apr 03 j 16:48	23°♄49'33	
direct	-363 Oct 04 j 22:27	25°♄55'17					
	-363 Dec 15 j 07:50	0°♄		conjunction	-356 Apr 21 j 13:39	26°♄09'32	-2°-7'-14
evening set	-362 Jan 12 j 13:14	3°♄11'28		minimum elong	-356 Apr 21 j 13:42	26°♄09'32	2°07'15
conjunction	-362 Jan 29 j 11:01	5°♄15'22	-1°-14'-54	max. Earth dist.	-356 Apr 21 j 18:47	26°♄11'13	9.97581 AU
minimum elong	-362 Jan 29 j 10:59	5°♄15'22	1°14'56	morning rise	-356 May 09 j 13:34	28°♄30'32	
max. Earth dist.	-362 Jan 29 j 03:13	5°♄12'58	10.64208 AU		-356 May 21 j 08:35	0°♄	
morning rise	-362 Feb 15 j 12:50	7°♄20'36		retrograde	-356 Aug 24 j 13:06	6°♄59'12	
	-362 May 25 j 07:08	15°♄		opposition	-356 Oct 30 j 19:41	3°♄28'18	-2°-29'-12
retrograde	-362 Jun 01 j 00:16	15°♄02'17		min. Earth dist.	-356 Oct 30 j 14:46	3°♄29'19	7.95686 AU
	-362 Jun 07 j 18:09	15°♄♄		direct	-355 Jan 04 j 23:08	29°♄59'58	
opposition	-362 Aug 10 j 06:28	11°♄37'28	-1°-47'-48		-355 Jan 04 j 03:58	30°♄♄	
min. Earth dist.	-362 Aug 10 j 12:15	11°♄36'21	8.57518 AU		-355 Jan 05 j 18:19	0°♄	
direct	-362 Oct 17 j 08:19	8°♄16'57		evening set	-355 Apr 18 j 21:46	8°♄16'16	
	-361 Jan 19 j 11:52	15°♄					
evening set	-361 Jan 25 j 05:50	15°♄41'43		conjunction	-355 May 06 j 22:36	10°♄37'53	-1°-49'-31
conjunction	-361 Feb 11 j 06:25	17°♄48'14	-1°-38'-33	minimum elong	-355 May 06 j 22:39	10°♄37'55	1°49'31
minimum elong	-361 Feb 11 j 06:23	17°♄48'13	1°38'35	max. Earth dist.	-355 May 07 j 05:58	10°♄40'19	9.94321 AU
max. Earth dist.	-361 Feb 10 j 23:15	17°♄46'00	10.50737 AU	morning rise	-355 May 25 j 01:26	13°♄00'11	
morning rise	-361 Feb 28 j 11:35	19°♄56'13			-355 Jun 09 j 22:38	15°♄	
retrograde	-361 Jun 14 j 18:03	27°♄49'03		retrograde	-355 Sep 08 j 09:57	21°♄27'24	
opposition	-361 Aug 23 j 13:28	24°♄22'41	-2°-14'-55	opposition	-355 Nov 14 j 06:37	17°♄56'46	-2°-2'-32
min. Earth dist.	-361 Aug 23 j 18:03	24°♄21'47	8.43977 AU	min. Earth dist.	-355 Nov 14 j 00:23	17°♄58'04	7.94051 AU
direct	-361 Oct 30 j 01:53	21°♄00'58			-355 Dec 26 j 13:15	15°♄♄	
evening set	-360 Feb 07 j 09:46	28°♄35'18		direct	-354 Jan 19 j 13:23	14°♄27'30	
	-360 Feb 18 j 16:25	0°♄♄			-354 Feb 12 j 14:22	15°♄	
conjunction	-360 Feb 24 j 13:32	0°♄44'35	-1°-57'-55	evening set	-354 May 04 j 06:26	22°♄46'48	
minimum elong	-360 Feb 24 j 13:29	0°♄44'35	1°57'57	conjunction	-354 May 22 j 10:12	25°♄09'12	-1°-24'-50
max. Earth dist.	-360 Feb 24 j 07:19	0°♄42'38	10.37234 AU	minimum elong	-354 May 22 j 10:15	25°♄09'14	1°24'50
morning rise	-360 Mar 12 j 22:17	2°♄55'28		max. Earth dist.	-354 May 22 j 19:01	25°♄12'06	9.94421 AU
retrograde	-360 Jun 27 j 20:20	10°♄59'10		morning rise	-354 Jun 09 j 14:45	27°♄31'52	
opposition	-360 Sep 05 j 03:30	7°♄31'21	-2°-35'-57		-354 Jun 29 j 10:46	0°♄♄	
min. Earth dist.	-360 Sep 05 j 07:03	7°♄30'39	8.30789 AU	retrograde	-354 Sep 23 j 02:46	5°♄54'22	
direct	-360 Nov 11 j 03:20	4°♄08'16		opposition	-354 Nov 28 j 16:25	2°♄24'27	-1°-28'-5
evening set	-359 Feb 20 j 01:21	11°♄52'40		min. Earth dist.	-354 Nov 28 j 09:28	2°♄25'54	7.95784 AU
conjunction	-359 Mar 09 j 08:52	14°♄04'49	-2°-11'-34		-354 Dec 30 j 15:11	30°♄♄	
minimum elong	-359 Mar 09 j 08:50	14°♄04'49	2°11'36	direct	-353 Feb 03 j 07:31	28°♄54'32	
max. Earth dist.	-359 Mar 09 j 04:53	14°♄03'33	10.24460 AU		-353 Mar 09 j 20:10	0°♄♄	
morning rise	-359 Mar 26 j 21:25	16°♄18'36		evening set	-353 May 19 j 15:17	7°♄14'13	
retrograde	-359 Jul 12 j 05:47	24°♄32'08		conjunction	-353 Jun 06 j 20:29	9°♄36'25	0°-54'-54
opposition	-359 Sep 19 j 00:16	21°♄03'02	-2°-49'-6	minimum elong	-353 Jun 06 j 20:32	9°♄36'26	0°54'54
min. Earth dist.	-359 Sep 19 j 02:07	21°♄02'39	8.18705 AU	max. Earth dist.	-353 Jun 07 j 06:07	9°♄39'34	9.97860 AU
direct	-359 Nov 24 j 14:35	17°♄38'31		morning rise	-353 Jun 25 j 01:11	11°♄58'26	
evening set	-358 Mar 06 j 04:22	25°♄32'48		retrograde	-353 Oct 07 j 12:19	20°♄13'36	
conjunction	-358 Mar 23 j 16:11	27°♄47'50	-2°-18'-13	opposition	-353 Dec 12 j 23:29	16°♄44'45	0°-48'-23
minimum elong	-358 Mar 23 j 16:11	27°♄47'50	2°18'14	min. Earth dist.	-353 Dec 12 j 16:07	16°♄46'17	8.00764 AU
max. Earth dist.	-358 Mar 23 j 15:12	27°♄47'30	10.13155 AU	direct	-352 Feb 18 j 01:48	13°♄14'34	
	-358 Apr 09 j 18:54	0°♄♄		evening set	-352 Jun 02 j 20:50	21°♄32'01	
morning rise	-358 Apr 10 j 08:41	0°♄04'22		conjunction	-352 Jun 21 j 01:46	23°♄53'02	0°-21'-54
				minimum elong	-352 Jun 21 j 01:47	23°♄53'02	0°21'54

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 5

Attention, astronomical year style is used: The year -352 in astronomical counting style is the year 353 BCE in historical counting style.

max. Earth dist.	-352 Jun 21 j 11:38	23° $\Pi$ 56'14	10.04392 AU	evening set	-346 Aug 24 j 13:27	10° $\Pi$ 33'34	
morning rise	-352 Jul 09 j 04:55	26° $\Pi$ 13'25					
	-352 Aug 09 j 22:07	0° $\mathfrak{E}$		conjunction	-346 Sep 10 j 16:16	12° $\Pi$ 36'47	2°11'03
retrograde	-352 Oct 20 j 14:19	4° $\mathfrak{E}$ 19'23		minimum elong	-346 Sep 10 j 16:14	12° $\Pi$ 36'46	2°11'02
opposition	-352 Dec 26 j 02:02	0° $\mathfrak{E}$ 51'54	0°-6'-23	max. Earth dist.	-346 Sep 10 j 19:09	12° $\Pi$ 37'39	10.76948 AU
min. Earth dist.	-352 Dec 25 j 18:16	0° $\mathfrak{E}$ 53'30	8.08652 AU	morning rise	-346 Sep 27 j 14:31	14° $\Pi$ 38'36	
	-351 Jan 05 j 16:38	30° $\mathfrak{R}$ $\Pi$		retrograde	-345 Jan 04 j 20:47	21° $\Pi$ 47'17	
asc. node	-351 Feb 21 j 15:08	27° $\Pi$ 27'24		opposition	-345 Mar 14 j 06:25	18° $\Pi$ 28'57	2°46'04
direct	-351 Mar 03 j 17:33	27° $\Pi$ 21'48		min. Earth dist.	-345 Mar 14 j 04:05	18° $\Pi$ 29'23	8.83049 AU
	-351 Apr 28 j 11:06	0° $\mathfrak{E}$		direct	-345 May 24 j 04:10	15° $\Pi$ 05'08	
evening set	-351 Jun 17 j 20:32	5° $\mathfrak{E}$ 34'49		evening set	-345 Sep 05 j 22:37	22° $\Pi$ 30'12	
conjunction	-351 Jul 05 j 23:29	7° $\mathfrak{E}$ 53'45	0°11'56	conjunction	-345 Sep 22 j 21:03	24° $\Pi$ 30'46	2°18'27
minimum elong	-351 Jul 05 j 23:28	7° $\mathfrak{E}$ 53'45	0°11'57	minimum elong	-345 Sep 22 j 21:02	24° $\Pi$ 30'45	2°18'27
behind sun begin	-351 Jul 05 j 18:31	7° $\mathfrak{E}$ 52'10		max. Earth dist.	-345 Sep 22 j 22:20	24° $\Pi$ 31'09	10.88544 AU
behind sun end	-351 Jul 06 j 04:26	7° $\mathfrak{E}$ 55'20		morning rise	-345 Oct 09 j 15:09	26° $\Pi$ 30'03	
max. Earth dist.	-351 Jul 06 j 09:15	7° $\mathfrak{E}$ 56'53	10.13577 AU		-345 Nov 10 j 21:13	0° $\mathfrak{A}$	
morning rise	-351 Jul 23 j 23:27	10° $\mathfrak{E}$ 11'41		retrograde	-344 Jan 16 j 18:38	3° $\mathfrak{A}$ 32'35	
retrograde	-351 Nov 03 j 08:24	18° $\mathfrak{E}$ 07'20		opposition	-344 Mar 25 j 14:21	0° $\mathfrak{A}$ 15'10	2°51'11
opposition	-350 Jan 08 j 22:46	14° $\mathfrak{E}$ 41'24	0°35'03	min. Earth dist.	-344 Mar 25 j 13:15	0° $\mathfrak{A}$ 15'23	8.93897 AU
min. Earth dist.	-350 Jan 08 j 14:40	14° $\mathfrak{E}$ 43'03	8.18933 AU		-344 Mar 28 j 23:11	30° $\mathfrak{R}$ $\Pi$	
direct	-350 Mar 18 j 04:31	11° $\mathfrak{E}$ 11'46		direct	-344 Jun 04 j 18:58	26° $\Pi$ 52'42	
evening set	-350 Jul 02 j 11:54	19° $\mathfrak{E}$ 18'35			-344 Aug 08 j 06:17	0° $\mathfrak{A}$	
				evening set	-344 Sep 16 j 22:34	4° $\mathfrak{A}$ 10'03	
conjunction	-350 Jul 20 j 11:21	21° $\mathfrak{E}$ 34'45	0°44'20	conjunction	-344 Oct 03 j 17:25	6° $\mathfrak{A}$ 08'27	2°19'57
minimum elong	-350 Jul 20 j 11:19	21° $\mathfrak{E}$ 34'44	0°44'21	minimum elong	-344 Oct 03 j 17:25	6° $\mathfrak{A}$ 08'27	2°19'56
max. Earth dist.	-350 Jul 20 j 20:57	21° $\mathfrak{E}$ 37'48	10.24826 AU	max. Earth dist.	-344 Oct 03 j 17:17	6° $\mathfrak{A}$ 08'24	10.98466 AU
morning rise	-350 Aug 07 j 06:45	23° $\mathfrak{E}$ 49'37		morning rise	-344 Oct 20 j 08:16	8° $\mathfrak{A}$ 05'44	
	-350 Oct 05 j 18:34	0° $\mathfrak{Q}$		retrograde	-343 Jan 27 j 11:23	15° $\mathfrak{A}$ 03'32	
retrograde	-350 Nov 16 j 18:21	1° $\mathfrak{Q}$ 34'37		opposition	-343 Apr 06 j 18:12	11° $\mathfrak{A}$ 46'47	2°49'17
	-350 Dec 29 j 13:47	30° $\mathfrak{R}$ $\mathfrak{E}$		min. Earth dist.	-343 Apr 06 j 19:26	11° $\mathfrak{A}$ 46'33	9.02827 AU
opposition	-349 Jan 22 j 13:19	28° $\mathfrak{E}$ 10'22	1°13'25	direct	-343 Jun 17 j 02:33	8° $\mathfrak{A}$ 25'32	
min. Earth dist.	-349 Jan 22 j 05:23	28° $\mathfrak{E}$ 11'57	8.30974 AU	evening set	-343 Sep 28 j 14:53	15° $\mathfrak{A}$ 36'09	
direct	-349 Apr 01 j 09:36	24° $\mathfrak{E}$ 41'32					
	-349 Jun 23 j 22:58	0° $\mathfrak{Q}$		conjunction	-343 Oct 15 j 06:49	17° $\mathfrak{A}$ 32'53	2°15'48
evening set	-349 Jul 16 j 16:59	2° $\mathfrak{Q}$ 40'47		minimum elong	-343 Oct 15 j 06:50	17° $\mathfrak{A}$ 32'53	2°15'48
				max. Earth dist.	-343 Oct 15 j 03:55	17° $\mathfrak{A}$ 32'02	11.06277 AU
conjunction	-349 Aug 03 j 11:46	4° $\mathfrak{Q}$ 53'45	1°13'35	morning rise	-343 Oct 31 j 19:31	19° $\mathfrak{A}$ 28'44	
minimum elong	-349 Aug 03 j 11:43	4° $\mathfrak{Q}$ 53'44	1°13'36	retrograde	-342 Feb 08 j 01:50	26° $\mathfrak{A}$ 23'23	
max. Earth dist.	-349 Aug 03 j 20:52	4° $\mathfrak{Q}$ 56'36	10.37470 AU	opposition	-342 Apr 18 j 18:56	23° $\mathfrak{A}$ 07'03	2°40'47
morning rise	-349 Aug 21 j 01:47	7° $\mathfrak{Q}$ 05'14		min. Earth dist.	-342 Apr 18 j 22:42	23° $\mathfrak{A}$ 06'21	9.09457 AU
retrograde	-349 Nov 29 j 18:51	14° $\mathfrak{Q}$ 39'52		direct	-342 Jun 29 j 06:01	19° $\mathfrak{A}$ 46'51	
opposition	-348 Feb 04 j 21:12	11° $\mathfrak{Q}$ 17'17	1°46'46	evening set	-342 Oct 10 j 01:09	26° $\mathfrak{A}$ 51'57	
min. Earth dist.	-348 Feb 04 j 14:13	11° $\mathfrak{Q}$ 18'41	8.44086 AU				
direct	-348 Apr 14 j 07:38	7° $\mathfrak{Q}$ 49'32		conjunction	-342 Oct 26 j 15:03	28° $\mathfrak{A}$ 47'36	2°06'27
	-348 Jul 23 j 20:40	15° $\mathfrak{Q}$		minimum elong	-342 Oct 26 j 15:05	28° $\mathfrak{A}$ 47'36	2°06'27
evening set	-348 Jul 29 j 11:05	15° $\mathfrak{Q}$ 40'25		max. Earth dist.	-342 Oct 26 j 09:22	28° $\mathfrak{A}$ 45'56	11.11671 AU
					-342 Nov 05 j 23:07	0° $\mathfrak{M}$	
conjunction	-348 Aug 16 j 00:35	17° $\mathfrak{Q}$ 50'00	1°38'18	morning rise	-342 Nov 12 j 02:40	0° $\mathfrak{M}$ 42'34	
minimum elong	-348 Aug 16 j 00:31	17° $\mathfrak{Q}$ 49'59	1°38'19	retrograde	-341 Feb 19 j 14:07	7° $\mathfrak{M}$ 35'45	
max. Earth dist.	-348 Aug 16 j 08:22	17° $\mathfrak{Q}$ 52'24	10.50817 AU	opposition	-341 Apr 30 j 17:36	4° $\mathfrak{M}$ 19'30	2°26'17
morning rise	-348 Sep 02 j 08:59	19° $\mathfrak{Q}$ 58'02		min. Earth dist.	-341 Apr 30 j 22:58	4° $\mathfrak{M}$ 18'31	9.13560 AU
retrograde	-348 Dec 11 j 11:28	27° $\mathfrak{Q}$ 22'57		direct	-341 Jul 11 j 04:12	1° $\mathfrak{M}$ 00'12	
opposition	-347 Feb 16 j 22:21	24° $\mathfrak{Q}$ 01'59	2°13'45	evening set	-341 Oct 21 j 06:57	8° $\mathfrak{M}$ 01'06	
min. Earth dist.	-347 Feb 16 j 17:16	24° $\mathfrak{Q}$ 02'58	8.57572 AU				
direct	-347 Apr 27 j 21:27	20° $\mathfrak{Q}$ 35'27		conjunction	-341 Nov 06 j 19:53	9° $\mathfrak{M}$ 56'10	1°52'21
evening set	-347 Aug 11 j 17:53	28° $\mathfrak{Q}$ 17'37		minimum elong	-341 Nov 06 j 19:55	9° $\mathfrak{M}$ 56'10	1°52'20
	-347 Aug 25 j 19:43	0° $\mathfrak{M}$		max. Earth dist.	-341 Nov 06 j 12:59	9° $\mathfrak{M}$ 54'09	11.14498 AU
				morning rise	-341 Nov 23 j 07:10	11° $\mathfrak{M}$ 50'48	
conjunction	-347 Aug 29 j 01:53	0° $\mathfrak{M}$ 23'54	1°57'37		-341 Dec 22 j 19:15	15° $\mathfrak{M}$	
minimum elong	-347 Aug 29 j 01:50	0° $\mathfrak{M}$ 23'53	1°57'37	retrograde	-340 Mar 02 j 04:30	18° $\mathfrak{M}$ 44'09	
max. Earth dist.	-347 Aug 29 j 07:09	0° $\mathfrak{M}$ 25'30	10.64186 AU	opposition	-340 May 11 j 15:18	15° $\mathfrak{M}$ 27'39	2°06'25
morning rise	-347 Sep 15 j 04:57	2° $\mathfrak{M}$ 28'39		min. Earth dist.	-340 May 11 j 21:20	15° $\mathfrak{M}$ 26'33	9.15044 AU
retrograde	-347 Dec 23 j 19:37	9° $\mathfrak{M}$ 44'50			-340 May 17 j 22:55	15° $\mathfrak{R}$ $\mathfrak{M}$	
opposition	-346 Mar 01 j 17:17	6° $\mathfrak{M}$ 25'18	2°33'37	direct	-340 Jul 22 j 00:08	12° $\mathfrak{M}$ 09'02	
min. Earth dist.	-346 Mar 01 j 13:49	6° $\mathfrak{M}$ 25'58	8.70763 AU		-340 Sep 21 j 09:31	15° $\mathfrak{M}$	
direct	-346 May 11 j 03:46	3° $\mathfrak{M}$ 00'06					

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 6

Attention, astronomical year style is used: The year -340 in astronomical counting style is the year 341 BCE in historical counting style.

evening set	-340 Oct 31 j 10:25	19°♄07'05		evening set	-333 Jan 07 j 07:21	27°♄51'33	
conjunction	-340 Nov 16 j 23:03	21°♄02'05	1°34'04	conjunction	-333 Jan 24 j 03:53	29°♄54'34	-1°-3'-3
minimum elong	-340 Nov 16 j 23:05	21°♄02'05	1°34'03	minimum elong	-333 Jan 24 j 03:51	29°♄54'33	1°03'04
max. Earth dist.	-340 Nov 16 j 15:22	20°♄59'50	11.14710 AU	max. Earth dist.	-333 Jan 23 j 18:42	29°♄51'45	10.68022 AU
morning rise	-340 Dec 03 j 10:40	22°♄56'52			-333 Jan 24 j 21:38	0°≈	
retrograde	-339 Mar 13 j 20:59	29°♄51'54		morning rise	-333 Feb 10 j 04:33	1°≈58'51	
opposition	-339 May 23 j 13:13	26°♄34'54	1°41'51	retrograde	-333 May 26 j 05:33	9°≈36'10	
min. Earth dist.	-339 May 23 j 20:24	26°♄33'35	9.13918 AU	opposition	-333 Aug 04 j 16:44	6°≈11'26	-1°-33'-56
direct	-339 Aug 02 j 16:02	23°♄16'43		min. Earth dist.	-333 Aug 04 j 23:37	6°≈10'06	8.61538 AU
	-339 Nov 09 j 14:27	0°♄		direct	-333 Oct 12 j 00:48	2°≈50'42	
evening set	-339 Nov 11 j 13:14	0°♄13'21		evening set	-332 Jan 19 j 19:11	10°≈12'06	
conjunction	-339 Nov 28 j 02:02	2°♄08'43	1°12'13	conjunction	-332 Feb 05 j 18:27	12°≈17'36	-1°-28'-12
minimum elong	-339 Nov 28 j 02:04	2°♄08'44	1°12'12	minimum elong	-332 Feb 05 j 18:25	12°≈17'35	1°28'13
max. Earth dist.	-339 Nov 27 j 16:46	2°♄06'00	11.12351 AU	max. Earth dist.	-332 Feb 05 j 10:55	12°≈15'15	10.54967 AU
morning rise	-339 Dec 14 j 14:50	4°♄04'09		morning rise	-332 Feb 22 j 22:13	14°≈24'30	
retrograde	-338 Mar 25 j 14:24	11°♄02'30			-332 Feb 27 j 19:54	15°≈	
opposition	-338 Jun 04 j 12:38	7°♄44'40	1°13'20	retrograde	-332 Jun 07 j 18:37	22°≈12'48	
min. Earth dist.	-338 Jun 04 j 21:11	7°♄43'05	9.10264 AU	opposition	-332 Aug 16 j 20:41	18°≈46'31	-2°-3'-14
direct	-338 Aug 14 j 07:44	4°♄26'37		min. Earth dist.	-332 Aug 17 j 02:02	18°≈45'28	8.48331 AU
evening set	-338 Nov 22 j 17:00	11°♄23'23		direct	-332 Oct 23 j 16:22	15°≈24'44	
				evening set	-331 Jan 31 j 17:45	22°≈55'11	
conjunction	-338 Dec 09 j 06:31	13°♄19'32	0°47'29	conjunction	-331 Feb 17 j 20:08	25°≈03'22	-1°-49'-43
minimum elong	-338 Dec 09 j 06:32	13°♄19'32	0°47'28	minimum elong	-331 Feb 17 j 20:05	25°≈03'21	1°49'44
max. Earth dist.	-338 Dec 08 j 20:09	13°♄16'29	11.07524 AU	max. Earth dist.	-331 Feb 17 j 15:06	25°≈01'47	10.41686 AU
morning rise	-338 Dec 25 j 21:06	15°♄16'01		morning rise	-331 Mar 07 j 03:10	27°≈13'04	
retrograde	-337 Apr 06 j 13:42	22°♄19'18			-331 Mar 30 j 17:50	0°♄	
opposition	-337 Jun 16 j 14:17	19°♄00'22	0°41'45	retrograde	-331 Jun 21 j 17:34	5°♄12'27	
min. Earth dist.	-337 Jun 16 j 23:17	18°♄58'43	9.04220 AU	opposition	-331 Aug 30 j 07:45	1°♄44'42	-2°-27'-17
direct	-337 Aug 26 j 01:23	15°♄42'13		min. Earth dist.	-331 Aug 30 j 10:46	1°♄44'07	8.35238 AU
evening set	-337 Dec 03 j 23:43	22°♄40'42			-331 Sep 22 j 11:43	30°♄	
conjunction	-337 Dec 20 j 14:34	24°♄38'03	0°20'40	direct	-331 Nov 05 j 14:05	28°≈21'47	
minimum elong	-337 Dec 20 j 14:35	24°♄38'04	0°20'40		-331 Dec 18 j 10:20	0°♄	
max. Earth dist.	-337 Dec 20 j 04:38	24°♄35'07	11.00389 AU	evening set	-330 Feb 14 j 04:08	6°♄02'01	
morning rise	-336 Jan 06 j 07:09	26°♄36'00		conjunction	-330 Mar 03 j 10:02	8°♄13'01	-2°-6'-9
	-336 Feb 06 j 19:09	0°♄		minimum elong	-330 Mar 03 j 10:00	8°♄13'00	2°06'10
retrograde	-336 Apr 17 j 18:00	3°♄45'44		max. Earth dist.	-330 Mar 03 j 07:07	8°♄12'05	10.28855 AU
opposition	-336 Jun 27 j 19:07	0°♄25'31	0°08'01	morning rise	-330 Mar 20 j 20:42	10°♄25'36	
min. Earth dist.	-336 Jun 28 j 03:31	0°♄23'57	8.95991 AU	retrograde	-330 Jul 06 j 00:48	18°♄35'20	
	-336 Jul 03 j 12:55	30°♄		opposition	-330 Sep 13 j 01:42	15°♄06'22	-2°-44'-14
direct	-336 Sep 05 j 19:05	27°♄07'02		min. Earth dist.	-330 Sep 13 j 02:37	15°♄06'11	8.22947 AU
desc. node	-336 Sep 23 j 10:59	27°♄22'45		direct	-330 Nov 18 j 20:15	11°♄42'13	
	-336 Nov 05 j 03:42	0°♄		evening set	-329 Feb 28 j 02:23	19°♄32'27	
evening set	-336 Dec 14 j 11:12	4°♄08'54					
conjunction	-336 Dec 31 j 03:42	6°♄07'49	0°-7'-27	conjunction	-329 Mar 17 j 12:13	21°♄46'18	-2°-16'-7
minimum elong	-336 Dec 31 j 03:41	6°♄07'49	0°07'28	minimum elong	-329 Mar 17 j 12:12	21°♄46'18	2°16'08
behind sun begin	-336 Dec 30 j 21:18	6°♄05'56		max. Earth dist.	-329 Mar 17 j 11:16	21°♄46'00	10.17187 AU
behind sun end	-336 Dec 31 j 10:05	6°♄09'42		morning rise	-329 Apr 04 j 02:49	24°♄01'43	
max. Earth dist.	-336 Dec 30 j 18:19	6°♄05'02	10.91189 AU		-329 May 28 j 19:27	0°♄	
morning rise	-335 Jan 16 j 22:34	8°♄07'32		retrograde	-329 Jul 20 j 14:32	2°♄20'17	
retrograde	-335 Apr 30 j 06:31	15°♄25'16			-329 Sep 12 j 12:42	30°♄	
opposition	-335 Jul 10 j 04:38	12°♄03'36	0°-26'-42	opposition	-329 Sep 27 j 02:06	28°♄50'24	-2°-52'-22
min. Earth dist.	-335 Jul 10 j 12:17	12°♄02'10	8.85868 AU	min. Earth dist.	-329 Sep 27 j 01:18	28°♄50'33	8.12163 AU
direct	-335 Sep 17 j 16:40	8°♄44'35		direct	-329 Dec 02 j 11:52	25°♄25'02	
evening set	-335 Dec 26 j 05:08	15°♄51'25			-328 Feb 14 j 03:55	0°♄	
				evening set	-328 Mar 13 j 11:46	3°♄24'45	
conjunction	-334 Jan 11 j 23:27	17°♄52'14	0°-35'-42	conjunction	-328 Mar 31 j 01:53	5°♄41'21	-2°-18'-29
minimum elong	-334 Jan 11 j 23:26	17°♄52'14	0°35'43	minimum elong	-328 Mar 31 j 01:53	5°♄41'21	2°18'30
max. Earth dist.	-334 Jan 11 j 13:51	17°♄49'20	10.80261 AU	max. Earth dist.	-328 Mar 31 j 03:14	5°♄41'47	10.07386 AU
morning rise	-334 Jan 28 j 21:05	19°♄54'06		morning rise	-328 Apr 17 j 20:30	7°♄59'22	
retrograde	-334 May 13 j 02:44	27°♄21'07		retrograde	-328 Aug 03 j 09:13	16°♄24'25	
opposition	-334 Jul 22 j 19:41	23°♄57'56	-1°-1'-12	opposition	-328 Oct 10 j 07:49	12°♄53'59	-2°-50'-29
min. Earth dist.	-334 Jul 23 j 03:06	23°♄56'31	8.74230 AU	min. Earth dist.	-328 Oct 10 j 05:22	12°♄54'29	8.03561 AU
direct	-334 Sep 29 j 17:22	20°♄38'09					

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 7

Attention, astronomical year style is used: The year -328 in astronomical counting style is the year 329 BCE in historical counting style.

direct	-328 Dec 15 j 11:51	9°Υ27'28		asc. node	-322 Aug 03 j 20:49	6°♄18'47	
evening set	-327 Mar 28 j 07:03	17°Υ35'27		retrograde	-322 Oct 28 j 17:31	12°♄13'26	
				opposition	-321 Jan 03 j 04:13	8°♄47'20	0°16'48
conjunction	-327 Apr 15 j 01:40	19°Υ54'29	-2°-12'-34	min. Earth dist.	-321 Jan 02 j 20:57	8°♄48'49	8.14972 AU
minimum elong	-327 Apr 15 j 01:43	19°Υ54'29	2°12'34	direct	-321 Mar 12 j 01:14	5°♄18'01	
max. Earth dist.	-327 Apr 15 j 05:37	19°Υ55'46	10.00100 AU	evening set	-321 Jun 26 j 09:30	13°♄27'51	
morning rise	-327 May 03 j 00:10	22°Υ14'44					
	-327 Jul 21 j 01:30	0°♄		conjunction	-321 Jul 14 j 10:37	15°♄45'19	0°30'11
retrograde	-327 Aug 18 j 06:36	0°♄43'11		minimum elong	-321 Jul 14 j 10:36	15°♄45'18	0°30'12
	-327 Sep 15 j 12:53	30°♄		max. Earth dist.	-321 Jul 14 j 19:38	15°♄48'11	10.20267 AU
opposition	-327 Oct 24 j 17:10	27°Υ12'35	-2°-38'-2	morning rise	-321 Aug 01 j 08:06	18°♄01'36	
min. Earth dist.	-327 Oct 24 j 13:05	27°Υ13'25	7.97720 AU	retrograde	-321 Nov 11 j 07:26	25°♄51'37	
direct	-327 Dec 29 j 19:35	23°Υ45'02		opposition	-320 Jan 16 j 22:08	22°♄27'05	0°56'51
	-326 Mar 27 j 14:03	0°♄		min. Earth dist.	-320 Jan 16 j 15:39	22°♄28'24	8.25889 AU
evening set	-326 Apr 12 j 10:01	1°♄59'22		direct	-320 Mar 25 j 10:15	18°♄58'17	
				evening set	-320 Jul 09 j 19:49	27°♄01'20	
conjunction	-326 Apr 30 j 09:00	4°♄20'18	-1°-58'-21				
minimum elong	-326 Apr 30 j 09:03	4°♄20'20	1°58'21	conjunction	-320 Jul 27 j 16:42	29°♄15'48	1°01'04
max. Earth dist.	-326 Apr 30 j 15:40	4°♄22'30	9.95818 AU	minimum elong	-320 Jul 27 j 16:39	29°♄15'47	1°01'05
morning rise	-326 May 18 j 10:46	6°♄42'08		max. Earth dist.	-320 Jul 28 j 00:13	29°♄18'10	10.31926 AU
	-326 Aug 19 j 09:51	15°♄			-320 Aug 02 j 12:47	0°♄	
retrograde	-326 Sep 02 j 03:47	15°♄10'33		morning rise	-320 Aug 14 j 09:20	1°♄28'54	
	-326 Sep 15 j 21:53	15°♄		retrograde	-320 Nov 23 j 10:41	9°♄08'30	
opposition	-326 Nov 08 j 04:20	11°♄40'10	-2°-15'-28	opposition	-319 Jan 29 j 09:27	5°♄45'30	1°32'41
min. Earth dist.	-326 Nov 07 j 22:24	11°♄41'24	7.95024 AU	min. Earth dist.	-319 Jan 29 j 03:37	5°♄46'40	8.38156 AU
direct	-325 Jan 13 j 09:25	8°♄11'46		direct	-319 Apr 08 j 13:35	2°♄17'28	
	-325 Apr 15 j 21:29	15°♄		evening set	-319 Jul 23 j 19:35	10°♄12'38	
evening set	-325 Apr 27 j 17:52	16°♄30'03					
				conjunction	-319 Aug 10 j 11:26	12°♄23'49	1°27'59
conjunction	-325 May 15 j 20:22	18°♄52'08	-1°-36'-36	minimum elong	-319 Aug 10 j 11:23	12°♄23'48	1°27'59
minimum elong	-325 May 15 j 20:26	18°♄52'09	1°36'36	max. Earth dist.	-319 Aug 10 j 17:30	12°♄25'42	10.44589 AU
max. Earth dist.	-325 May 16 j 05:25	18°♄55'06	9.94811 AU	morning rise	-319 Aug 27 j 22:34	14°♄33'30	
morning rise	-325 Jun 03 j 00:19	21°♄14'40			-319 Aug 31 j 13:55	15°♄	
retrograde	-325 Sep 16 j 22:00	29°♄39'37		retrograde	-319 Dec 06 j 07:09	22°♄03'08	
opposition	-325 Nov 22 j 15:10	26°♄09'51	-1°-44'-13	opposition	-318 Feb 11 j 13:57	18°♄41'34	2°02'40
min. Earth dist.	-325 Nov 22 j 07:38	26°♄11'25	7.95629 AU	min. Earth dist.	-318 Feb 11 j 08:36	18°♄42'37	8.51106 AU
direct	-324 Jan 28 j 02:47	22°♄40'47		direct	-318 Apr 22 j 07:57	15°♄14'30	
	-324 May 04 j 05:11	0°♄		evening set	-318 Aug 06 j 07:54	23°♄01'06	
evening set	-324 May 12 j 03:11	1°♄00'21					
				conjunction	-318 Aug 23 j 18:27	25°♄08'58	1°49'49
conjunction	-324 May 30 j 07:57	3°♄22'39	-1°-8'-46	minimum elong	-318 Aug 23 j 18:23	25°♄08'57	1°49'49
minimum elong	-324 May 30 j 08:00	3°♄22'40	1°08'46	max. Earth dist.	-318 Aug 23 j 23:34	25°♄10'32	10.57592 AU
max. Earth dist.	-324 May 30 j 18:30	3°♄26'07	9.97093 AU	morning rise	-318 Sep 09 j 23:58	27°♄15'17	
morning rise	-324 Jun 17 j 12:40	5°♄44'56			-318 Oct 03 j 22:01	0°♄	
retrograde	-324 Sep 30 j 10:56	14°♄03'30		retrograde	-318 Dec 18 j 19:51	4°♄35'45	
opposition	-324 Dec 05 j 23:44	10°♄34'40	-1°-6'-32	opposition	-317 Feb 24 j 12:03	1°♄15'29	2°25'49
min. Earth dist.	-324 Dec 05 j 15:25	10°♄36'24	7.99412 AU	min. Earth dist.	-317 Feb 24 j 07:46	1°♄16'19	8.64081 AU
direct	-323 Feb 10 j 20:12	7°♄05'11			-317 Mar 13 j 02:34	30°♄	
evening set	-323 May 27 j 10:43	15°♄23'32		direct	-317 May 05 j 17:59	27°♄49'33	
					-317 Jun 27 j 04:33	0°♄	
conjunction	-323 Jun 14 j 16:05	17°♄45'05	0°-36'-51	evening set	-317 Aug 19 j 08:35	5°♄27'20	
minimum elong	-323 Jun 14 j 16:07	17°♄45'06	0°36'51				
max. Earth dist.	-323 Jun 15 j 03:00	17°♄48'38	10.02384 AU	conjunction	-317 Sep 05 j 13:56	7°♄32'02	2°05'55
morning rise	-323 Jul 02 j 19:58	20°♄06'10		minimum elong	-317 Sep 05 j 13:53	7°♄32'02	2°05'54
retrograde	-323 Oct 14 j 18:11	28°♄16'15		max. Earth dist.	-317 Sep 05 j 17:56	7°♄33'16	10.70299 AU
opposition	-323 Dec 20 j 04:30	24°♄48'41	0°-25'-13	morning rise	-317 Sep 22 j 14:13	9°♄35'16	
min. Earth dist.	-323 Dec 19 j 20:20	24°♄50'22	8.05997 AU	retrograde	-317 Dec 31 j 00:36	16°♄47'40	
direct	-322 Feb 25 j 12:11	21°♄19'07		opposition	-316 Mar 08 j 03:59	13°♄28'32	2°41'36
evening set	-322 Jun 11 j 13:43	29°♄34'08		min. Earth dist.	-316 Mar 08 j 01:37	13°♄28'59	8.76467 AU
	-322 Jun 14 j 23:11	0°♄		direct	-316 May 17 j 20:39	10°♄03'45	
				evening set	-316 Aug 30 j 22:36	17°♄32'59	
conjunction	-322 Jun 29 j 17:49	1°♄54'02	0°-3'-11				
minimum elong	-322 Jun 29 j 17:49	1°♄54'02	0°03'11	conjunction	-316 Sep 16 j 23:06	19°♄34'51	2°16'00
behind sun begin	-322 Jun 29 j 10:30	1°♄51'42		minimum elong	-316 Sep 16 j 23:04	19°♄34'51	2°15'59
behind sun end	-322 Jun 30 j 01:08	1°♄56'23		max. Earth dist.	-316 Sep 17 j 00:50	19°♄35'22	10.82139 AU
max. Earth dist.	-322 Jun 30 j 04:08	1°♄57'21	10.10247 AU	morning rise	-316 Oct 03 j 18:59	21°♄35'22	
morning rise	-322 Jul 17 j 19:11	4°♄13'03		retrograde	-315 Jan 10 j 23:37	28°♄40'56	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 8

Attention, astronomical year style is used: The year -315 in astronomical counting style is the year 316 BCE in historical counting style.

opposition	-315 Mar 20 j 14:17	25° $\mathring{M}$ 22'44	2°49'58	min. Earth dist.	-309 May 30 j 21:07	3° $\mathring{A}$ 02'16	9.12675 AU
min. Earth dist.	-315 Mar 20 j 14:00	25° $\mathring{M}$ 22'47	8.87725 AU		-309 Jul 23 j 01:32	30° $\mathring{R}\mathring{M}$	
direct	-315 May 30 j 15:19	21° $\mathring{M}$ 59'08		direct	-309 Aug 09 j 15:02	29° $\mathring{M}$ 45'18	
evening set	-315 Sep 12 j 02:49	29° $\mathring{M}$ 20'22			-309 Aug 26 j 23:21	0° $\mathring{A}$	
	-315 Sep 17 j 18:05	0° $\mathring{A}$		evening set	-309 Nov 18 j 03:57	6° $\mathring{A}$ 41'26	
conjunction	-315 Sep 28 j 23:09	1° $\mathring{A}$ 19'50	2°20'05	conjunction	-309 Dec 04 j 17:13	8° $\mathring{A}$ 37'05	0°58'45
minimum elong	-315 Sep 28 j 23:09	1° $\mathring{A}$ 19'50	2°20'04	minimum elong	-309 Dec 04 j 17:15	8° $\mathring{A}$ 37'06	0°58'44
max. Earth dist.	-315 Sep 28 j 22:21	1° $\mathring{A}$ 19'36	10.92630 AU	max. Earth dist.	-309 Dec 04 j 09:54	8° $\mathring{A}$ 34'55	11.10791 AU
morning rise	-315 Oct 15 j 15:33	3° $\mathring{A}$ 18'08		morning rise	-309 Dec 21 j 06:49	10° $\mathring{A}$ 32'55	
retrograde	-314 Jan 22 j 16:44	10° $\mathring{A}$ 18'17		retrograde	-308 Mar 31 j 15:58	17° $\mathring{A}$ 33'14	
opposition	-314 Apr 01 j 20:03	7° $\mathring{A}$ 00'45	2°51'07	opposition	-308 Jun 10 j 14:53	14° $\mathring{A}$ 14'58	0°56'04
min. Earth dist.	-314 Apr 01 j 20:57	7° $\mathring{A}$ 00'35	8.97409 AU	min. Earth dist.	-308 Jun 10 j 21:27	14° $\mathring{A}$ 13'46	9.08365 AU
direct	-314 Jun 12 j 03:41	3° $\mathring{A}$ 38'22		direct	-308 Aug 20 j 06:19	10° $\mathring{A}$ 57'08	
evening set	-314 Sep 23 j 22:19	10° $\mathring{A}$ 52'21		evening set	-308 Nov 28 j 08:53	17° $\mathring{A}$ 54'05	
conjunction	-314 Oct 10 j 15:30	12° $\mathring{A}$ 49'55	2°18'23	conjunction	-308 Dec 14 j 23:00	19° $\mathring{A}$ 50'41	0°32'46
minimum elong	-314 Oct 10 j 15:30	12° $\mathring{A}$ 49'56	2°18'23	minimum elong	-308 Dec 14 j 23:01	19° $\mathring{A}$ 50'41	0°32'46
max. Earth dist.	-314 Oct 10 j 13:23	12° $\mathring{A}$ 49'18	11.01374 AU	max. Earth dist.	-308 Dec 14 j 14:30	19° $\mathring{A}$ 48'11	11.05339 AU
morning rise	-314 Oct 27 j 05:15	14° $\mathring{A}$ 46'31		morning rise	-308 Dec 31 j 14:29	21° $\mathring{A}$ 47'44	
retrograde	-313 Feb 03 j 08:49	21° $\mathring{A}$ 42'47		retrograde	-307 Apr 12 j 16:51	28° $\mathring{A}$ 53'38	
opposition	-313 Apr 13 j 22:06	18° $\mathring{A}$ 25'43	2°45'27	opposition	-307 Jun 22 j 17:54	25° $\mathring{A}$ 34'25	0°23'12
min. Earth dist.	-313 Apr 13 j 23:45	18° $\mathring{A}$ 25'24	9.05158 AU	min. Earth dist.	-307 Jun 23 j 01:22	25° $\mathring{A}$ 33'02	9.01747 AU
direct	-313 Jun 24 j 10:11	15° $\mathring{A}$ 04'29		direct	-307 Aug 31 j 21:44	22° $\mathring{A}$ 16'34	
evening set	-313 Oct 05 j 11:01	22° $\mathring{A}$ 12'15		evening set	-307 Dec 09 j 17:41	29° $\mathring{A}$ 15'59	
					-307 Dec 16 j 00:01	0° $\mathring{B}$	
conjunction	-313 Oct 22 j 01:58	24° $\mathring{A}$ 08'27	2°11'15	conjunction	-307 Dec 26 j 09:07	1° $\mathring{B}$ 13'54	0°05'14
minimum elong	-313 Oct 22 j 02:00	24° $\mathring{A}$ 08'28	2°11'16	minimum elong	-307 Dec 26 j 09:07	1° $\mathring{B}$ 13'54	0°05'14
max. Earth dist.	-313 Oct 21 j 23:01	24° $\mathring{A}$ 07'36	11.08057 AU	behind sun begin	-307 Dec 26 j 02:21	1° $\mathring{B}$ 11'55	
morning rise	-313 Nov 07 j 13:58	26° $\mathring{A}$ 03'53		behind sun end	-307 Dec 26 j 15:53	1° $\mathring{B}$ 15'53	
	-313 Dec 15 j 07:13	0° $\mathring{M}$		max. Earth dist.	-307 Dec 25 j 23:58	1° $\mathring{B}$ 11'12	10.97682 AU
retrograde	-312 Feb 14 j 22:32	2° $\mathring{M}$ 57'44		morning rise	-306 Jan 12 j 02:55	3° $\mathring{B}$ 12'32	
	-312 Apr 20 j 13:51	30° $\mathring{R}\mathring{A}$		desc. node	-306 Mar 05 j 13:01	8° $\mathring{B}$ 26'14	
opposition	-312 Apr 24 j 21:21	29° $\mathring{A}$ 40'56	2°33'30	retrograde	-306 Apr 25 j 00:36	10° $\mathring{B}$ 25'33	
min. Earth dist.	-312 Apr 25 j 00:30	29° $\mathring{A}$ 40'21	9.10705 AU	opposition	-306 Jul 05 j 00:51	7° $\mathring{B}$ 05'09	0°-11'-9
direct	-312 Jul 05 j 08:46	26° $\mathring{A}$ 20'45		min. Earth dist.	-306 Jul 05 j 08:34	7° $\mathring{B}$ 03'43	8.93057 AU
	-312 Sep 13 j 19:50	0° $\mathring{M}$		direct	-306 Sep 12 j 18:20	3° $\mathring{B}$ 47'00	
evening set	-312 Oct 15 j 18:37	3° $\mathring{M}$ 23'31		evening set	-306 Dec 21 j 07:58	10° $\mathring{B}$ 50'27	
conjunction	-312 Nov 01 j 08:02	5° $\mathring{M}$ 18'52	1°59'10	conjunction	-305 Jan 07 j 01:16	12° $\mathring{B}$ 50'04	0°-23'-5
minimum elong	-312 Nov 01 j 08:04	5° $\mathring{M}$ 18'53	1°59'10	minimum elong	-305 Jan 07 j 01:15	12° $\mathring{B}$ 50'04	0°23'07
max. Earth dist.	-312 Nov 01 j 03:15	5° $\mathring{M}$ 17'28	11.12446 AU	max. Earth dist.	-305 Jan 06 j 16:49	12° $\mathring{B}$ 47'32	10.88066 AU
morning rise	-312 Nov 17 j 19:21	7° $\mathring{M}$ 13'40		morning rise	-305 Jan 23 j 21:33	14° $\mathring{B}$ 50'37	
retrograde	-311 Feb 25 j 11:10	14° $\mathring{M}$ 06'43		retrograde	-305 May 07 j 16:05	22° $\mathring{B}$ 12'06	
opposition	-311 May 06 j 19:17	10° $\mathring{M}$ 49'56	2°15'53	opposition	-305 Jul 17 j 12:35	18° $\mathring{B}$ 50'20	0°-45'-48
min. Earth dist.	-311 May 07 j 00:25	10° $\mathring{M}$ 48'59	9.13861 AU	min. Earth dist.	-305 Jul 17 j 19:33	18° $\mathring{B}$ 49'01	8.82570 AU
direct	-311 Jul 17 j 05:03	7° $\mathring{M}$ 30'38		direct	-305 Sep 24 j 17:18	15° $\mathring{B}$ 31'39	
evening set	-311 Oct 26 j 22:44	14° $\mathring{M}$ 29'45		evening set	-304 Jan 02 j 05:40	22° $\mathring{B}$ 40'43	
	-311 Oct 31 j 08:08	15° $\mathring{M}$					
conjunction	-311 Nov 12 j 11:19	16° $\mathring{M}$ 24'43	1°42'39	conjunction	-304 Jan 19 j 01:05	24° $\mathring{B}$ 42'19	0°-50'-55
minimum elong	-311 Nov 12 j 11:21	16° $\mathring{M}$ 24'44	1°42'38	minimum elong	-304 Jan 19 j 01:03	24° $\mathring{B}$ 42'18	0°50'57
max. Earth dist.	-311 Nov 12 j 04:32	16° $\mathring{M}$ 22'44	11.14397 AU	max. Earth dist.	-304 Jan 18 j 17:24	24° $\mathring{B}$ 39'59	10.76794 AU
morning rise	-311 Nov 28 j 22:50	18° $\mathring{M}$ 19'24		morning rise	-304 Feb 04 j 23:59	26° $\mathring{B}$ 45'04	
retrograde	-310 Mar 09 j 01:14	25° $\mathring{M}$ 13'16			-304 Mar 05 j 01:54	0° $\mathring{W}$	
opposition	-310 May 18 j 16:48	21° $\mathring{M}$ 56'14	1°53'16	retrograde	-304 May 19 j 15:24	4° $\mathring{W}$ 16'12	
min. Earth dist.	-310 May 18 j 22:52	21° $\mathring{M}$ 55'08	9.14525 AU	opposition	-304 Jul 29 j 05:52	0° $\mathring{W}$ 52'55	-1°-19'-23
direct	-310 Jul 28 j 22:49	18° $\mathring{M}$ 37'39		min. Earth dist.	-304 Jul 29 j 11:53	0° $\mathring{W}$ 51'47	8.70626 AU
evening set	-310 Nov 07 j 01:14	25° $\mathring{M}$ 34'31			-304 Aug 09 j 23:25	30° $\mathring{R}\mathring{B}$	
				direct	-304 Oct 05 j 21:04	27° $\mathring{B}$ 33'27	
conjunction	-310 Nov 23 j 13:52	27° $\mathring{M}$ 29'36	1°22'17		-304 Nov 28 j 23:43	0° $\mathring{W}$	
minimum elong	-310 Nov 23 j 13:54	27° $\mathring{M}$ 29'37	1°22'17	evening set	-303 Jan 13 j 12:12	4° $\mathring{W}$ 49'39	
max. Earth dist.	-310 Nov 23 j 06:39	27° $\mathring{M}$ 27'29	11.13843 AU				
morning rise	-310 Dec 10 j 02:09	29° $\mathring{M}$ 24'39		conjunction	-303 Jan 30 j 09:57	6° $\mathring{W}$ 53'33	-1°-17'-8
	-310 Dec 15 j 06:46	0° $\mathring{A}$		minimum elong	-303 Jan 30 j 09:55	6° $\mathring{W}$ 53'32	1°17'10
retrograde	-309 Mar 20 j 18:00	6° $\mathring{A}$ 20'56		max. Earth dist.	-303 Jan 30 j 02:14	6° $\mathring{W}$ 51'11	10.64255 AU
opposition	-309 May 30 j 14:54	3° $\mathring{A}$ 03'24	1°26'23	morning rise	-303 Feb 16 j 11:53	8° $\mathring{W}$ 58'47	

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 9

Attention, astronomical year style is used: The year -303 in astronomical counting style is the year 304 BCE in historical counting style.

	-303 Apr 17 j 09:46	15°♊	opposition	-297 Nov 01 j 17:05	5°♏03'11	-2°-27'-29
retrograde	-303 Jun 02 j 00:32	16°♊40'29	min. Earth dist.	-297 Nov 01 j 12:43	5°♏04'06	7.96245 AU
	-303 Jul 18 j 13:05	15°♊	direct	-296 Jan 06 j 20:53	1°♏34'53	
opposition	-303 Aug 11 j 05:48	13°♊15'41 -1°-50'-19	evening set	-296 Apr 19 j 19:53	9°♏50'52	
min. Earth dist.	-303 Aug 11 j 11:20	13°♊14'37 8.57660 AU				
direct	-303 Oct 18 j 06:54	9°♊55'11	conjunction	-296 May 07 j 20:42	12°♏12'23 -1°-47'-56	
	-302 Jan 06 j 08:15	15°♊	minimum elong	-296 May 07 j 20:46	12°♏12'24 1°47'56	
evening set	-302 Jan 26 j 04:48	17°♊19'52	max. Earth dist.	-296 May 08 j 02:57	12°♏14'26 9.94882 AU	
			morning rise	-296 May 25 j 23:40	14°♏34'36	
conjunction	-302 Feb 12 j 05:20	19°♊26'21 -1°-40'-24		-296 May 29 j 06:50	15°♏	
minimum elong	-302 Feb 12 j 05:17	19°♊26'20 1°40'25	retrograde	-296 Sep 09 j 07:10	23°♏01'11	
max. Earth dist.	-302 Feb 11 j 21:52	19°♊24'01 10.50958 AU	opposition	-296 Nov 15 j 03:41	19°♏30'40 -2°00'-14	
morning rise	-302 Mar 01 j 10:39	21°♊34'19	min. Earth dist.	-296 Nov 14 j 22:18	19°♏31'47 7.94600 AU	
retrograde	-302 Jun 15 j 17:41	29°♊27'02	direct	-295 Jan 20 j 11:55	16°♏01'25	
opposition	-302 Aug 24 j 12:39	26°♊00'44 -2°-16'-53	evening set	-295 May 05 j 04:08	24°♏20'22	
min. Earth dist.	-302 Aug 24 j 17:36	25°♊59'46 8.44270 AU				
direct	-302 Oct 31 j 00:07	22°♊39'01	conjunction	-295 May 23 j 07:53	26°♏42'41 -1°-22'-50	
	-301 Feb 06 j 13:42	0°♊	minimum elong	-295 May 23 j 07:56	26°♏42'42 1°22'50	
evening set	-301 Feb 08 j 08:41	0°♊13'15	max. Earth dist.	-295 May 23 j 15:37	26°♏45'13 9.94961 AU	
			morning rise	-295 Jun 10 j 12:33	29°♏05'15	
conjunction	-301 Feb 25 j 12:33	2°♊22'29 -1°-59'-16		-295 Jun 17 j 16:24	0°♐	
minimum elong	-301 Feb 25 j 12:30	2°♊22'28 1°59'17	retrograde	-295 Sep 23 j 22:14	7°♐27'10	
max. Earth dist.	-301 Feb 25 j 06:38	2°♊20'37 10.37584 AU	opposition	-295 Nov 29 j 13:06	3°♐57'20 -1°-25'-22	
morning rise	-301 Mar 14 j 21:25	4°♊33'18	min. Earth dist.	-295 Nov 29 j 06:50	3°♐58'39 7.96301 AU	
retrograde	-301 Jun 29 j 18:21	12°♊36'48	direct	-294 Feb 04 j 05:15	0°♐27'26	
opposition	-301 Sep 07 j 02:18	9°♊09'03 -2°-37'-15	evening set	-294 May 20 j 12:37	8°♐46'46	
min. Earth dist.	-301 Sep 07 j 06:00	9°♊08'19 8.31191 AU				
direct	-301 Nov 13 j 02:59	5°♊46'01	conjunction	-294 Jun 07 j 17:50	11°♐08'54 0°-52'-38	
evening set	-300 Feb 22 j 00:13	13°♊30'14	minimum elong	-294 Jun 07 j 17:53	11°♐08'55 0°52'38	
			max. Earth dist.	-294 Jun 08 j 02:38	11°♐11'46 9.98350 AU	
conjunction	-300 Mar 10 j 07:57	15°♊42'22 -2°-12'-21	morning rise	-294 Jun 25 j 22:35	13°♐30'48	
minimum elong	-300 Mar 10 j 07:55	15°♊42'21 2°12'22	retrograde	-294 Oct 08 j 07:55	21°♐45'27	
max. Earth dist.	-300 Mar 10 j 04:43	15°♊41'20 10.24895 AU	opposition	-294 Dec 13 j 19:46	18°♐16'40 0°-45'-27	
morning rise	-300 Mar 27 j 20:30	17°♊56'03	min. Earth dist.	-294 Dec 13 j 12:37	18°♐18'09 8.01214 AU	
retrograde	-300 Jul 13 j 02:55	26°♊09'17	direct	-293 Feb 18 j 22:46	14°♐46'29	
opposition	-300 Sep 19 j 22:41	22°♊40'15 -2°-49'-39	evening set	-293 Jun 04 j 17:54	23°♐03'39	
min. Earth dist.	-300 Sep 20 j 00:09	22°♊39'58 8.19178 AU				
direct	-300 Nov 25 j 14:18	19°♊15'50	conjunction	-293 Jun 22 j 22:49	25°♐24'35 0°-19'-30	
evening set	-299 Mar 07 j 03:04	27°♊09'50	minimum elong	-293 Jun 22 j 22:50	25°♐24'35 0°19'31	
			max. Earth dist.	-293 Jun 23 j 08:24	25°♐27'41 10.04797 AU	
conjunction	-299 Mar 24 j 15:04	29°♊24'50 -2°-18'-22	morning rise	-293 Jul 11 j 01:50	27°♐44'52	
minimum elong	-299 Mar 24 j 15:04	29°♊24'50 2°18'23		-293 Jul 29 j 08:40	0°♑	
max. Earth dist.	-299 Mar 24 j 14:46	29°♊24'44 10.13650 AU	retrograde	-293 Oct 22 j 10:20	5°♑50'24	
	-299 Mar 29 j 03:44	0°♑	opposition	-293 Dec 27 j 22:00	2°♑22'57 0°-3'-23	
morning rise	-299 Apr 11 j 07:32	1°♑41'18	min. Earth dist.	-293 Dec 27 j 13:58	2°♑24'36 8.09004 AU	
retrograde	-299 Jul 27 j 18:41	10°♑02'22	asc. node	-292 Jan 27 j 13:44	0°♑04'40	
opposition	-299 Oct 04 j 00:53	6°♑32'20 -2°-52'-37		-292 Jan 28 j 20:39	30°♑♐	
min. Earth dist.	-299 Oct 03 j 23:59	6°♑32'31 8.08948 AU	direct	-292 Mar 04 j 14:08	28°♐52'52	
direct	-299 Dec 09 j 08:27	3°♑06'31		-292 Apr 09 j 03:31	0°♑	
evening set	-298 Mar 21 j 16:43	11°♑09'31	evening set	-292 Jun 18 j 17:15	7°♑05'39	
conjunction	-298 Apr 08 j 09:13	13°♑27'11 -2°-16'-25	conjunction	-292 Jul 06 j 20:08	9°♑24'30 0°14'18	
minimum elong	-298 Apr 08 j 09:15	13°♑27'11 2°16'26	minimum elong	-292 Jul 06 j 20:07	9°♑24'30 0°14'19	
max. Earth dist.	-298 Apr 08 j 11:34	13°♑27'56 10.04539 AU	behind sun begin	-292 Jul 06 j 16:55	9°♑23'29	
morning rise	-298 Apr 26 j 05:38	15°♑46'08	behind sun end	-292 Jul 06 j 23:19	9°♑25'31	
retrograde	-298 Aug 11 j 14:54	24°♑12'18	max. Earth dist.	-292 Jul 07 j 06:13	9°♑27'44 10.13871 AU	
opposition	-298 Oct 18 j 07:29	20°♑41'40 -2°-45'-15	morning rise	-292 Jul 24 j 19:49	11°♑42'20	
min. Earth dist.	-298 Oct 18 j 04:33	20°♑42'17 8.01136 AU	retrograde	-292 Nov 04 j 04:25	19°♑37'41	
direct	-298 Dec 23 j 11:01	17°♑14'31	opposition	-291 Jan 09 j 18:35	16°♑11'46 0°37'55	
evening set	-297 Apr 05 j 15:13	25°♑25'04	min. Earth dist.	-291 Jan 09 j 10:27	16°♑13'26 8.19167 AU	
			direct	-291 Mar 19 j 00:54	12°♑42'08	
conjunction	-297 Apr 23 j 12:07	27°♑44'59 -2°-6'-10	evening set	-291 Jul 03 j 08:18	20°♑48'48	
minimum elong	-297 Apr 23 j 12:10	27°♑44'59 2°06'10				
max. Earth dist.	-297 Apr 23 j 16:36	27°♑46'27 9.98144 AU	conjunction	-291 Jul 21 j 07:38	23°♑04'53 0°46'33	
	-297 May 10 j 17:46	0°♒	minimum elong	-291 Jul 21 j 07:36	23°♑04'52 0°46'34	
morning rise	-297 May 11 j 12:11	0°♒05'56	max. Earth dist.	-291 Jul 21 j 17:29	23°♑08'01 10.24992 AU	
retrograde	-297 Aug 26 j 11:51	8°♒33'59	morning rise	-291 Aug 08 j 02:44	25°♑19'40	

Attention, astronomical year style is used: The year -291 in astronomical counting style is the year 292 BCE in historical counting style.

	-291 Sep 18 j 17:24	0°♈		minimum elong	-285 Oct 05 j 13:28	7°♊39'54	2°19'44
retrograde	-291 Nov 17 j 14:00	3°♈04'30		max. Earth dist.	-285 Oct 05 j 13:10	7°♊39'49	10.97969 AU
	-290 Jan 19 j 06:49	30°♈		morning rise	-285 Oct 22 j 04:18	9°♊37'16	
opposition	-290 Jan 23 j 09:04	29°♈40'15	1°16'02	retrograde	-284 Jan 29 j 08:19	16°♊35'27	
min. Earth dist.	-290 Jan 23 j 01:43	29°♈41'44	8.31074 AU	opposition	-284 Apr 07 j 15:11	13°♊18'42	2°48'45
direct	-290 Apr 02 j 05:21	26°♈11'23		min. Earth dist.	-284 Apr 07 j 16:50	13°♊18'24	9.02334 AU
	-290 Jun 10 j 15:43	0°♈		direct	-284 Jun 17 j 23:37	9°♊57'27	
evening set	-290 Jul 17 j 13:21	4°♈10'37		evening set	-284 Sep 29 j 11:15	17°♊08'19	
conjunction	-290 Aug 04 j 07:53	6°♈23'31	1°15'33	conjunction	-284 Oct 16 j 03:05	19°♊05'08	2°15'07
minimum elong	-290 Aug 04 j 07:50	6°♈23'30	1°15'34	minimum elong	-284 Oct 16 j 03:06	19°♊05'08	2°15'07
max. Earth dist.	-290 Aug 04 j 16:30	6°♈26'13	10.37495 AU	max. Earth dist.	-284 Oct 15 j 23:48	19°♊04'10	11.05802 AU
morning rise	-290 Aug 21 j 21:38	8°♈34'56		morning rise	-284 Nov 01 j 15:54	21°♊01'04	
	-290 Oct 25 j 14:26	15°♈		retrograde	-283 Feb 08 j 21:47	27°♊56'04	
retrograde	-290 Nov 30 j 15:15	16°♈09'30		opposition	-283 Apr 19 j 16:05	24°♊39'42	2°39'41
	-289 Jan 06 j 04:31	15°♈		min. Earth dist.	-283 Apr 19 j 19:27	24°♊39'04	9.09006 AU
opposition	-289 Feb 05 j 16:58	12°♈46'56	1°49'00	direct	-283 Jun 30 j 02:21	21°♊19'31	
min. Earth dist.	-289 Feb 05 j 10:59	12°♈48'07	8.44048 AU	evening set	-283 Oct 10 j 21:37	28°♊24'48	
direct	-289 Apr 16 j 02:46	9°♈19'07			-283 Oct 24 j 13:35	0°♈	
	-289 Jul 12 j 19:53	15°♈					
evening set	-289 Jul 31 j 07:20	17°♈10'05		conjunction	-283 Oct 27 j 11:36	0°♈20'31	2°05'18
				minimum elong	-283 Oct 27 j 11:38	0°♈20'31	2°05'18
conjunction	-289 Aug 17 j 20:29	19°♈19'38	1°39'56	max. Earth dist.	-283 Oct 27 j 06:37	0°♈19'03	11.11250 AU
minimum elong	-289 Aug 17 j 20:26	19°♈19'37	1°39'56	morning rise	-283 Nov 12 j 23:15	2°♈15'34	
max. Earth dist.	-289 Aug 18 j 03:06	19°♈21'41	10.50703 AU	retrograde	-282 Feb 20 j 11:55	9°♈09'05	
morning rise	-289 Sep 04 j 04:44	21°♈27'38		opposition	-282 May 01 j 15:03	5°♈52'47	2°24'39
retrograde	-289 Dec 13 j 06:25	28°♈52'37		min. Earth dist.	-282 May 01 j 19:25	5°♈51'59	9.13155 AU
opposition	-288 Feb 18 j 18:14	25°♈31'38	2°15'31	direct	-282 Jul 12 j 02:26	2°♈33'31	
min. Earth dist.	-288 Feb 18 j 13:36	25°♈32'33	8.57403 AU	evening set	-282 Oct 22 j 03:35	9°♈34'32	
direct	-288 Apr 28 j 17:51	22°♈05'03					
evening set	-288 Aug 12 j 13:53	29°♈47'23		conjunction	-282 Nov 07 j 16:37	11°♈29'41	1°50'47
	-288 Aug 14 j 07:58	0°♈		minimum elong	-282 Nov 07 j 16:39	11°♈29'41	1°50'46
				max. Earth dist.	-282 Nov 07 j 10:44	11°♈27'58	11.14117 AU
conjunction	-288 Aug 29 j 21:39	1°♈53'38	1°58'50	morning rise	-282 Nov 24 j 03:52	13°♈24'23	
minimum elong	-288 Aug 29 j 21:36	1°♈53'37	1°58'50		-282 Dec 08 j 11:04	15°♈	
max. Earth dist.	-288 Aug 30 j 02:04	1°♈54'59	10.63947 AU	retrograde	-281 Mar 04 j 03:19	20°♈18'02	
morning rise	-288 Sep 16 j 00:37	3°♈58'25		opposition	-281 May 13 j 13:10	17°♈01'31	2°04'17
retrograde	-288 Dec 24 j 14:28	11°♈14'49		min. Earth dist.	-281 May 13 j 18:54	17°♈00'29	9.14677 AU
opposition	-287 Mar 02 j 13:14	7°♈55'14	2°34'51		-281 Jun 12 j 08:30	15°♈	
min. Earth dist.	-287 Mar 02 j 09:26	7°♈55'58	8.70467 AU	direct	-281 Jul 23 j 20:49	13°♈42'58	
direct	-287 May 12 j 01:26	4°♈30'01			-281 Sep 02 j 07:44	15°♈	
evening set	-287 Aug 25 j 09:26	12°♈03'41		evening set	-281 Nov 02 j 07:20	20°♈41'06	
conjunction	-287 Sep 11 j 12:12	14°♈06'55	2°11'48	conjunction	-281 Nov 18 j 19:59	22°♈36'10	1°32'08
minimum elong	-287 Sep 11 j 12:10	14°♈06'55	2°11'48	minimum elong	-281 Nov 18 j 20:01	22°♈36'11	1°32'07
max. Earth dist.	-287 Sep 11 j 15:17	14°♈07'51	10.76593 AU	max. Earth dist.	-281 Nov 18 j 12:11	22°♈33'54	11.14368 AU
morning rise	-287 Sep 28 j 10:15	16°♈08'45		morning rise	-281 Dec 05 j 07:46	24°♈31'04	
retrograde	-286 Jan 05 j 18:17	23°♈17'44			-280 Feb 01 j 03:15	0°♈	
opposition	-286 Mar 15 j 02:31	19°♈59'22	2°46'44	retrograde	-280 Mar 14 j 17:52	1°♈26'24	
min. Earth dist.	-286 Mar 14 j 23:50	19°♈59'52	8.82640 AU		-280 Apr 27 j 16:42	30°♈	
direct	-286 May 24 j 23:26	16°♈35'33		opposition	-280 May 24 j 11:20	28°♈09'23	1°39'18
evening set	-286 Sep 06 j 18:42	24°♈00'52		min. Earth dist.	-280 May 24 j 18:50	28°♈08'00	9.13593 AU
				direct	-280 Aug 03 j 12:46	24°♈51'13	
conjunction	-286 Sep 23 j 17:06	26°♈01'30	2°18'44		-280 Oct 27 j 05:30	0°♈	
minimum elong	-286 Sep 23 j 17:05	26°♈01'30	2°18'44	evening set	-280 Nov 12 j 10:25	1°♈48'00	
max. Earth dist.	-286 Sep 23 j 18:58	26°♈02'03	10.88093 AU				
morning rise	-286 Oct 10 j 11:00	28°♈00'50		conjunction	-280 Nov 28 j 23:14	3°♈43'26	1°09'58
	-286 Oct 27 j 23:57	0°♈		minimum elong	-280 Nov 28 j 23:17	3°♈43'26	1°09'58
retrograde	-285 Jan 17 j 15:01	5°♈03'43		max. Earth dist.	-280 Nov 28 j 13:47	3°♈40'39	11.12051 AU
opposition	-285 Mar 27 j 10:58	1°♈46'17	2°51'16	morning rise	-280 Dec 15 j 12:17	5°♈38'56	
min. Earth dist.	-285 Mar 27 j 10:09	1°♈46'26	8.93415 AU	retrograde	-279 Mar 26 j 12:52	12°♈37'35	
	-285 Apr 21 j 07:19	30°♈		opposition	-279 Jun 05 j 10:56	9°♈19'45	1°10'28
direct	-285 Jun 06 j 14:22	28°♈23'49		min. Earth dist.	-279 Jun 05 j 19:21	9°♈18'12	9.09981 AU
	-285 Jul 21 j 22:35	0°♈		direct	-279 Aug 15 j 06:27	6°♈01'44	
evening set	-285 Sep 18 j 18:45	5°♈41'27		evening set	-279 Nov 23 j 14:22	12°♈58'36	
conjunction	-285 Oct 05 j 13:28	7°♈39'54	2°19'44	conjunction	-279 Dec 10 j 04:04	14°♈54'50	0°45'01



# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 11

Attention, astronomical year style is used: The year -279 in astronomical counting style is the year 280 BCE in historical counting style.

minimum elong	-279 Dec 10 j 04:06	14°♂54'50	0°45'01	conjunction	-272 Feb 19 j 18:39	26°♂39'29	-1°-51'-17
max. Earth dist.	-279 Dec 09 j 18:39	14°♂52'03	11.07266 AU	minimum elong	-272 Feb 19 j 18:36	26°♂39'28	1°51'19
morning rise	-279 Dec 26 j 18:43	16°♂51'24		max. Earth dist.	-272 Feb 19 j 13:45	26°♂37'57	10.41908 AU
retrograde	-278 Apr 07 j 11:55	23°♂54'57		morning rise	-272 Mar 08 j 01:43	28°♂49'09	
opposition	-278 Jun 17 j 12:48	20°♂36'00	0°38'38		-272 Mar 17 j 19:22	0°♂	
min. Earth dist.	-278 Jun 17 j 20:48	20°♂34'31	9.03984 AU	retrograde	-272 Jun 22 j 16:14	6°♂48'20	
direct	-278 Aug 26 j 23:11	17°♂17'54		opposition	-272 Aug 31 j 06:03	3°♂20'34	-2°-28'-54
evening set	-278 Dec 04 j 21:22	24°♂16'28		min. Earth dist.	-272 Aug 31 j 08:42	3°♂20'02	8.35507 AU
					-272 Oct 30 j 22:21	30°♂	
conjunction	-278 Dec 21 j 12:23	26°♂13'52	0°18'04	direct	-272 Nov 06 j 12:06	29°♂57'37	
minimum elong	-278 Dec 21 j 12:23	26°♂13'53	0°18'05		-272 Nov 13 j 01:14	0°♂	
max. Earth dist.	-278 Dec 21 j 03:18	26°♂11'12	11.00181 AU	evening set	-271 Feb 15 j 02:30	7°♂37'40	
morning rise	-277 Jan 07 j 05:01	28°♂11'52					
	-277 Jan 23 j 04:52	0°♂		conjunction	-271 Mar 04 j 08:21	9°♂48'37	-2°-7'-12
retrograde	-277 Apr 19 j 17:57	5°♂21'52		minimum elong	-271 Mar 04 j 08:19	9°♂48'36	2°07'13
opposition	-277 Jun 29 j 17:53	2°♂01'37	0°04'49	max. Earth dist.	-271 Mar 04 j 04:47	9°♂47'29	10.29160 AU
min. Earth dist.	-277 Jun 30 j 01:38	2°♂00'10	8.95816 AU	morning rise	-271 Mar 21 j 19:10	12°♂01'09	
	-277 Jul 29 j 02:31	30°♂		retrograde	-271 Jul 06 j 22:42	20°♂10'34	
desc. node	-277 Aug 21 j 08:15	28°♂58'04		opposition	-271 Sep 13 j 23:44	16°♂41'36	-2°-45'-9
direct	-277 Sep 07 j 17:40	28°♂43'10		min. Earth dist.	-271 Sep 14 j 01:01	16°♂41'20	8.23288 AU
	-277 Oct 17 j 04:21	0°♂		direct	-271 Nov 19 j 18:22	13°♂17'25	
evening set	-277 Dec 16 j 09:10	5°♂45'04		evening set	-270 Mar 01 j 00:25	21°♂07'23	
conjunction	-276 Jan 02 j 01:41	7°♂44'02	0°-10'-4	conjunction	-270 Mar 18 j 10:16	23°♂21'11	-2°-16'-34
minimum elong	-276 Jan 02 j 01:40	7°♂44'02	0°10'05	minimum elong	-270 Mar 18 j 10:15	23°♂21'10	2°16'35
behind sun begin	-276 Jan 01 j 20:00	7°♂42'21		max. Earth dist.	-270 Mar 18 j 08:44	23°♂20'41	10.17558 AU
behind sun end	-276 Jan 02 j 07:20	7°♂45'42		morning rise	-270 Apr 05 j 01:03	25°♂36'33	
max. Earth dist.	-276 Jan 01 j 16:05	7°♂41'11	10.91051 AU		-270 May 12 j 19:39	0°♂	
morning rise	-276 Jan 18 j 20:46	9°♂43'49		retrograde	-270 Jul 21 j 12:15	3°♂54'42	
retrograde	-276 May 01 j 05:41	17°♂01'41		opposition	-270 Sep 27 j 23:42	0°♂24'49	-2°-52'-32
opposition	-276 Jul 11 j 03:31	13°♂40'02	0°-29'-53	min. Earth dist.	-270 Sep 27 j 23:30	0°♂24'51	8.12554 AU
min. Earth dist.	-276 Jul 11 j 11:22	13°♂38'33	8.85770 AU		-270 Oct 03 j 01:58	30°♂	
direct	-276 Sep 18 j 13:45	10°♂21'00		direct	-270 Dec 03 j 09:17	26°♂59'24	
evening set	-276 Dec 27 j 03:19	17°♂27'53			-269 Jan 30 j 21:16	0°♂	
				evening set	-269 Mar 15 j 09:31	4°♂58'49	
conjunction	-275 Jan 12 j 21:39	19°♂28'42	0°-38'-14	conjunction	-269 Apr 01 j 23:47	7°♂15'21	-2°-18'-19
minimum elong	-275 Jan 12 j 21:38	19°♂28'42	0°38'15	minimum elong	-269 Apr 01 j 23:47	7°♂15'21	2°18'20
max. Earth dist.	-275 Jan 12 j 11:56	19°♂25'46	10.80207 AU	max. Earth dist.	-269 Apr 02 j 00:56	7°♂15'44	10.07792 AU
morning rise	-275 Jan 29 j 19:29	21°♂30'36		morning rise	-269 Apr 19 j 18:32	9°♂33'20	
retrograde	-275 May 14 j 00:06	28°♂57'43		retrograde	-269 Aug 05 j 06:10	17°♂57'52	
opposition	-275 Jul 23 j 18:34	25°♂34'30	-1°-4'-12	opposition	-269 Oct 12 j 04:45	14°♂27'27	-2°-49'-53
min. Earth dist.	-275 Jul 24 j 02:13	25°♂33'03	8.74223 AU	min. Earth dist.	-269 Oct 12 j 02:41	14°♂27'52	8.03970 AU
direct	-275 Sep 30 j 16:17	22°♂14'43		direct	-269 Dec 17 j 09:57	11°♂00'54	
evening set	-274 Jan 08 j 05:37	29°♂28'06		evening set	-268 Mar 29 j 04:24	19°♂08'34	
	-274 Jan 12 j 15:37	0°♂					
conjunction	-274 Jan 25 j 02:17	1°♂31'07	-1°-5'-23	conjunction	-268 Apr 15 j 23:15	21°♂27'33	-2°-11'-48
minimum elong	-274 Jan 25 j 02:15	1°♂31'07	1°05'24	minimum elong	-268 Apr 15 j 23:17	21°♂27'33	2°11'49
max. Earth dist.	-274 Jan 24 j 17:59	1°♂28'34	10.68059 AU	max. Earth dist.	-268 Apr 16 j 03:29	21°♂28'56	10.00506 AU
morning rise	-274 Feb 11 j 02:59	3°♂35'24		morning rise	-268 May 03 j 21:46	23°♂47'43	
retrograde	-274 May 27 j 04:21	11°♂12'46			-268 Jun 29 j 01:17	0°♂	
opposition	-274 Aug 05 j 15:35	7°♂47'59	-1°-36'-37	retrograde	-268 Aug 19 j 02:18	2°♂15'40	
min. Earth dist.	-274 Aug 05 j 21:54	7°♂46'46	8.61630 AU		-268 Oct 10 j 03:14	30°♂	
direct	-274 Oct 13 j 00:33	4°♂27'15		opposition	-268 Oct 25 j 13:37	28°♂45'05	-2°-36'-44
evening set	-273 Jan 20 j 17:31	11°♂48'32		min. Earth dist.	-268 Oct 25 j 09:21	28°♂45'58	7.98114 AU
				direct	-268 Dec 30 j 17:27	25°♂17'31	
					-267 Mar 15 j 07:36	0°♂	
conjunction	-273 Feb 06 j 16:56	13°♂54'01	-1°-30'-12	evening set	-267 Apr 13 j 06:53	3°♂31'32	
minimum elong	-273 Feb 06 j 16:54	13°♂54'00	1°30'14				
max. Earth dist.	-273 Feb 06 j 10:26	13°♂52'00	10.55099 AU				
	-273 Feb 15 j 13:52	15°♂		conjunction	-267 May 01 j 06:05	5°♂52'27	-1°-57'-4
morning rise	-273 Feb 23 j 20:40	16°♂00'55		minimum elong	-267 May 01 j 06:08	5°♂52'28	1°57'04
retrograde	-273 Jun 09 j 18:16	23°♂49'10		max. Earth dist.	-267 May 01 j 13:20	5°♂54'50	9.96200 AU
opposition	-273 Aug 18 j 19:19	20°♂22'49	-2°-5'-27	morning rise	-267 May 19 j 07:50	8°♂14'12	
min. Earth dist.	-273 Aug 18 j 23:47	20°♂21'57	8.48518 AU		-267 Jul 21 j 06:51	15°♂	
direct	-273 Oct 25 j 14:07	17°♂01'02		retrograde	-267 Sep 02 j 23:05	16°♂42'09	
evening set	-272 Feb 02 j 16:14	24°♂31'21			-267 Oct 17 j 04:43	15°♂	
				opposition	-267 Nov 09 j 00:20	13°♂11'48	-2°-13'-33

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 12

Attention, astronomical year style is used: The year -267 in astronomical counting style is the year 268 BCE in historical counting style.

min. Earth dist.	-267 Nov 08 j 17:59	13°♄13'07	7.95385 AU	retrograde	-261 Nov 25 j 06:07	10°♄36'28	
direct	-266 Jan 14 j 06:00	9°♄43'24		opposition	-260 Jan 31 j 04:18	7°♄13'30	1°34'59
	-266 Apr 04 j 01:23	15°♄		min. Earth dist.	-260 Jan 30 j 22:12	7°♄14'43	8.38253 AU
evening set	-266 Apr 28 j 14:30	18°♄01'25		direct	-260 Apr 09 j 08:00	3°♄45'30	
				evening set	-260 Jul 24 j 14:45	11°♄40'41	
conjunction	-266 May 16 j 17:10	20°♄23'28	-1°-34'-51				
minimum elong	-266 May 16 j 17:14	20°♄23'29	1°34'51	conjunction	-260 Aug 11 j 06:31	13°♄51'50	1°29'41
max. Earth dist.	-266 May 17 j 02:33	20°♄26'33	9.95159 AU	minimum elong	-260 Aug 11 j 06:27	13°♄51'49	1°29'41
morning rise	-266 Jun 03 j 21:06	22°♄45'57		max. Earth dist.	-260 Aug 11 j 12:52	13°♄53'49	10.44597 AU
	-266 Aug 12 j 20:58	0°♄			-260 Aug 20 j 09:33	15°♄	
retrograde	-266 Sep 17 j 17:37	1°♄10'29		morning rise	-260 Aug 28 j 17:21	16°♄01'28	
	-266 Oct 23 j 20:46	30°♄		retrograde	-260 Dec 07 j 02:38	23°♄31'11	
opposition	-266 Nov 23 j 10:49	27°♄40'46	-1°-41'-48	opposition	-259 Feb 12 j 08:56	20°♄09'39	2°04'34
min. Earth dist.	-266 Nov 23 j 03:14	27°♄42'20	7.95958 AU	min. Earth dist.	-259 Feb 12 j 03:45	20°♄10'40	8.51029 AU
direct	-265 Jan 28 j 21:26	24°♄11'43		direct	-259 Apr 23 j 02:28	16°♄42'37	
	-265 Apr 23 j 16:11	0°♄		evening set	-259 Aug 07 j 03:11	24°♄29'23	
evening set	-265 May 13 j 23:41	2°♄31'06					
conjunction	-265 Jun 01 j 04:29	4°♄53'22	-1°-6'-42	conjunction	-259 Aug 24 j 13:36	26°♄37'14	1°51'09
minimum elong	-265 Jun 01 j 04:32	4°♄53'23	1°06'42	minimum elong	-259 Aug 24 j 13:33	26°♄37'13	1°51'09
max. Earth dist.	-265 Jun 01 j 14:57	4°♄56'48	9.97422 AU	max. Earth dist.	-259 Aug 24 j 18:50	26°♄38'51	10.57424 AU
morning rise	-265 Jun 19 j 09:09	7°♄15'36		morning rise	-259 Sep 10 j 18:50	28°♄43'33	
retrograde	-265 Oct 02 j 07:51	15°♄33'46			-259 Sep 21 j 13:16	0°♄	
opposition	-265 Dec 07 j 19:16	12°♄05'01	-1°-3'-48	retrograde	-259 Dec 19 j 15:07	6°♄04'15	
min. Earth dist.	-265 Dec 07 j 11:20	12°♄06'40	7.99746 AU	opposition	-258 Feb 25 j 07:23	2°♄44'01	2°27'13
direct	-264 Feb 12 j 14:51	8°♄35'33		min. Earth dist.	-258 Feb 25 j 03:59	2°♄44'41	8.63833 AU
evening set	-264 May 28 j 06:56	16°♄53'42			-258 Apr 07 j 06:06	30°♄	
				direct	-258 May 06 j 13:17	29°♄18'05	
conjunction	-264 Jun 15 j 12:10	19°♄15'11	0°-34'-36		-258 Jun 04 j 16:54	0°♄	
minimum elong	-264 Jun 15 j 12:12	19°♄15'11	0°34'36	evening set	-258 Aug 20 j 04:12	6°♄56'10	
max. Earth dist.	-264 Jun 15 j 22:36	19°♄18'35	10.02743 AU				
morning rise	-264 Jul 03 j 16:00	21°♄36'11		conjunction	-258 Sep 06 j 09:16	9°♄00'53	2°06'50
retrograde	-264 Oct 15 j 14:21	29°♄45'51		minimum elong	-258 Sep 06 j 09:14	9°♄00'52	2°06'50
opposition	-264 Dec 20 j 23:51	26°♄18'21	0°-22'-22	max. Earth dist.	-258 Sep 06 j 12:28	9°♄01'51	10.69964 AU
min. Earth dist.	-264 Dec 20 j 16:26	26°♄19'53	8.06378 AU	morning rise	-258 Sep 23 j 09:26	11°♄04'08	
direct	-263 Feb 26 j 08:16	22°♄48'46		retrograde	-258 Dec 31 j 20:43	18°♄16'52	
	-263 Jun 03 j 21:57	0°♄		opposition	-257 Mar 09 j 23:46	14°♄57'45	2°42'29
evening set	-263 Jun 12 j 09:36	1°♄03'33		min. Earth dist.	-257 Mar 09 j 22:08	14°♄58'03	8.76064 AU
				direct	-257 May 19 j 15:52	11°♄32'59	
conjunction	-263 Jun 30 j 13:30	3°♄23'20	0°00'-51	evening set	-257 Sep 01 j 18:26	19°♄02'33	
minimum elong	-263 Jun 30 j 13:30	3°♄23'20	0°00'52				
behind sun begin	-263 Jun 30 j 06:09	3°♄21'00		conjunction	-257 Sep 18 j 18:41	21°♄04'28	2°16'28
behind sun end	-263 Jun 30 j 20:51	3°♄25'41		minimum elong	-257 Sep 18 j 18:40	21°♄04'28	2°16'27
max. Earth dist.	-263 Jun 30 j 22:45	3°♄26'18	10.10633 AU	max. Earth dist.	-257 Sep 18 j 19:29	21°♄04'42	10.81663 AU
asc. node	-263 Jul 10 j 00:23	4°♄36'28		morning rise	-257 Oct 05 j 14:33	23°♄05'03	
morning rise	-263 Jul 18 j 14:51	5°♄42'17			-257 Dec 29 j 06:08	0°♄	
retrograde	-263 Oct 29 j 11:37	13°♄42'13		retrograde	-256 Jan 12 j 18:34	0°♄11'02	
opposition	-262 Jan 03 j 23:15	10°♄16'12	0°19'36		-256 Jan 27 j 11:17	30°♄	
min. Earth dist.	-262 Jan 03 j 16:37	10°♄17'33	8.15340 AU	opposition	-256 Mar 21 j 10:29	26°♄52'48	2°50'17
direct	-262 Mar 12 j 22:08	6°♄46'51		min. Earth dist.	-256 Mar 21 j 10:04	26°♄52'53	8.87191 AU
evening set	-262 Jun 27 j 05:05	14°♄56'31		direct	-256 May 31 j 11:50	23°♄29'14	
					-256 Sep 05 j 14:17	0°♄	
conjunction	-262 Jul 15 j 06:00	17°♄13'52	0°32'23	evening set	-256 Sep 12 j 22:48	0°♄50'50	
minimum elong	-262 Jul 15 j 05:58	17°♄13'51	0°32'23				
max. Earth dist.	-262 Jul 15 j 13:54	17°♄16'23	10.20586 AU	conjunction	-256 Sep 29 j 19:07	2°♄50'22	2°20'04
morning rise	-262 Aug 02 j 03:25	19°♄30'04		minimum elong	-256 Sep 29 j 19:07	2°♄50'22	2°20'04
retrograde	-262 Nov 12 j 00:37	27°♄19'49		max. Earth dist.	-256 Sep 29 j 18:23	2°♄50'09	10.92034 AU
opposition	-261 Jan 17 j 16:58	23°♄55'20	0°59'27	morning rise	-256 Oct 16 j 11:28	4°♄48'45	
min. Earth dist.	-261 Jan 17 j 10:35	23°♄56'38	8.26147 AU	retrograde	-255 Jan 23 j 14:10	11°♄49'24	
direct	-261 Mar 27 j 06:42	20°♄26'33		opposition	-255 Apr 02 j 16:39	8°♄31'49	2°50'51
evening set	-261 Jul 11 j 15:08	28°♄29'31		min. Earth dist.	-255 Apr 02 j 16:59	8°♄31'46	8.96755 AU
	-261 Jul 23 j 16:45	0°♄		direct	-255 Jun 13 j 00:50	5°♄09'27	
conjunction	-261 Jul 29 j 11:51	0°♄43'55	1°03'03	evening set	-255 Sep 24 j 18:39	12°♄23'48	
minimum elong	-261 Jul 29 j 11:49	0°♄43'54	1°03'04				
max. Earth dist.	-261 Jul 29 j 18:58	0°♄46'09	10.32104 AU	conjunction	-255 Oct 11 j 11:53	14°♄21'29	2°17'53
morning rise	-261 Aug 16 j 04:16	2°♄56'55		minimum elong	-255 Oct 11 j 11:54	14°♄21'29	2°17'54
				max. Earth dist.	-255 Oct 11 j 10:29	14°♄21'04	11.00670 AU
				morning rise	-255 Oct 28 j 01:31	16°♄18'10	



























































































































## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 13

Attention, astronomical year style is used: The year -254 in astronomical counting style is the year 255 BCE in historical counting style.

retrograde	-254 Feb 04 j 06:28	23°♄14'56				-248 Mar 19 j 00:39	0°♄	
opposition	-254 Apr 14 j 19:14	19°♄57'49	2°44'36		retrograde	-248 Apr 13 j 16:01	0°♄31'46	
min. Earth dist.	-254 Apr 14 j 21:03	19°♄57'28	9.04408 AU			-248 May 09 j 16:07	30°♄♂	
direct	-254 Jun 25 j 05:33	16°♄36'35			opposition	-248 Jun 23 j 17:24	27°♄12'27	0°19'57
evening set	-254 Oct 06 j 07:44	23°♄44'43			min. Earth dist.	-248 Jun 24 j 00:47	27°♄11'05	9.01080 AU
					direct	-248 Sep 01 j 21:50	23°♄54'32	
conjunction	-254 Oct 22 j 22:38	25°♄41'02	2°10'18			-248 Dec 02 j 19:21	0°♄	
minimum elong	-254 Oct 22 j 22:40	25°♄41'02	2°10'18		evening set	-248 Dec 10 j 16:18	0°♄54'14	
max. Earth dist.	-254 Oct 22 j 19:30	25°♄40'06	11.07274 AU					
morning rise	-254 Nov 08 j 10:41	27°♄36'35			conjunction	-248 Dec 27 j 07:58	2°♄52'16	0°02'32
	-254 Nov 30 j 04:11	0°♄			minimum elong	-248 Dec 27 j 07:57	2°♄52'16	0°02'33
retrograde	-253 Feb 15 j 19:58	4°♄30'58			behind sun begin	-248 Dec 27 j 00:59	2°♄50'13	
opposition	-253 Apr 26 j 19:09	1°♄14'06	2°32'05		behind sun end	-248 Dec 27 j 14:56	2°♄54'19	
min. Earth dist.	-253 Apr 26 j 22:50	1°♄13'25	9.09899 AU		max. Earth dist.	-248 Dec 26 j 23:47	2°♄49'52	10.97065 AU
	-253 May 13 j 22:40	30°♄♂			morning rise	-247 Jan 13 j 01:52	4°♄51'01	
direct	-253 Jul 07 j 06:06	27°♄53'52			desc. node	-247 Jan 29 j 11:29	6°♄42'14	
	-253 Aug 28 j 15:30	0°♄			retrograde	-247 Apr 26 j 00:39	12°♄04'28	
evening set	-253 Oct 17 j 15:33	4°♄57'01			opposition	-247 Jul 06 j 00:34	8°♄43'58	0°-14'-27
					min. Earth dist.	-247 Jul 06 j 07:19	8°♄42'42	8.92497 AU
conjunction	-253 Nov 03 j 04:56	6°♄52'29	1°57'46		direct	-247 Sep 13 j 17:10	5°♄25'48	
minimum elong	-253 Nov 03 j 04:58	6°♄52'29	1°57'46		evening set	-247 Dec 22 j 06:54	12°♄29'29	
max. Earth dist.	-253 Nov 02 j 23:39	6°♄50'56	11.11626 AU					
morning rise	-253 Nov 19 j 16:28	8°♄47'25			conjunction	-246 Jan 08 j 00:22	14°♄29'11	0°-25'-45
	-252 Jan 29 j 10:46	15°♄			minimum elong	-246 Jan 08 j 00:22	14°♄29'11	0°25'46
retrograde	-252 Feb 27 j 08:57	15°♄41'01			max. Earth dist.	-246 Jan 07 j 17:03	14°♄26'59	10.87569 AU
	-252 Mar 27 j 20:16	15°♄♄			morning rise	-246 Jan 24 j 20:41	16°♄29'49	
opposition	-252 May 07 j 17:25	12°♄24'08	2°13'57		retrograde	-246 May 08 j 16:15	23°♄51'42	
min. Earth dist.	-252 May 07 j 22:24	12°♄23'13	9.13031 AU		opposition	-246 Jul 18 j 12:31	20°♄29'51	0°-49'00
direct	-252 Jul 18 j 02:52	9°♄04'47			min. Earth dist.	-246 Jul 18 j 18:25	20°♄28'44	8.82155 AU
	-252 Oct 18 j 07:27	15°♄			direct	-246 Sep 25 j 16:41	17°♄11'09	
evening set	-252 Oct 27 j 19:57	16°♄04'15			evening set	-245 Jan 03 j 05:00	24°♄20'24	
conjunction	-252 Nov 13 j 08:42	17°♄59'21	1°40'50		conjunction	-245 Jan 20 j 00:28	26°♄22'05	0°-53'-26
minimum elong	-252 Nov 13 j 08:44	17°♄59'22	1°40'50		minimum elong	-245 Jan 20 j 00:26	26°♄22'04	0°53'28
max. Earth dist.	-252 Nov 13 j 02:31	17°♄57'33	11.13565 AU		max. Earth dist.	-245 Jan 19 j 17:00	26°♄19'49	10.76470 AU
morning rise	-252 Nov 29 j 20:19	19°♄54'11			morning rise	-245 Feb 05 j 23:33	28°♄24'54	
retrograde	-251 Mar 09 j 23:22	26°♄48'36				-245 Feb 19 j 15:04	0°♄	
opposition	-251 May 19 j 15:12	23°♄31'27	1°50'52		retrograde	-245 May 21 j 16:37	5°♄56'17	
min. Earth dist.	-251 May 19 j 20:22	23°♄30'30	9.13690 AU		opposition	-245 Jul 31 j 05:57	2°♄32'59	-1°-22'-20
direct	-251 Jul 29 j 21:04	20°♄12'49			min. Earth dist.	-245 Jul 31 j 11:39	2°♄31'53	8.70413 AU
evening set	-251 Nov 07 j 22:48	27°♄10'01				-245 Sep 07 j 09:44	30°♄♂	
					direct	-245 Oct 07 j 20:20	29°♄13'29	
conjunction	-251 Nov 24 j 11:37	29°♄05'15	1°20'08			-245 Nov 06 j 17:40	0°♄	
minimum elong	-251 Nov 24 j 11:40	29°♄05'16	1°20'07		evening set	-244 Jan 15 j 11:49	6°♄29'47	
max. Earth dist.	-251 Nov 24 j 05:19	29°♄03'24	11.13018 AU					
	-251 Dec 02 j 06:56	0°♄♂			conjunction	-244 Feb 01 j 09:36	8°♄33'42	-1°-19'-23
morning rise	-251 Dec 10 j 23:57	1°♄00'25			minimum elong	-244 Feb 01 j 09:33	8°♄33'41	1°19'24
retrograde	-250 Mar 21 j 18:23	7°♄57'15			max. Earth dist.	-244 Feb 01 j 01:55	8°♄31'20	10.64159 AU
opposition	-250 May 31 j 13:49	4°♄39'37	1°23'36		morning rise	-244 Feb 18 j 11:45	10°♄38'59	
min. Earth dist.	-250 May 31 j 19:29	4°♄38'34	9.11862 AU			-244 Mar 29 j 05:32	15°♄	
direct	-250 Aug 10 j 13:13	1°♄21'29			retrograde	-244 Jun 03 j 00:36	18°♄20'44	
evening set	-250 Nov 19 j 01:54	8°♄17'54				-244 Aug 11 j 08:40	15°♄♄	
					opposition	-244 Aug 12 j 05:50	14°♄55'55	-1°-52'-51
conjunction	-250 Dec 05 j 15:12	10°♄13'41	0°56'20		min. Earth dist.	-244 Aug 12 j 11:28	14°♄54'50	8.57688 AU
minimum elong	-250 Dec 05 j 15:14	10°♄13'41	0°56'19		direct	-244 Oct 19 j 05:51	11°♄35'24	
max. Earth dist.	-250 Dec 05 j 07:50	10°♄11'31	11.10006 AU			-244 Dec 22 j 10:21	15°♄	
morning rise	-250 Dec 22 j 05:00	12°♄09'40			evening set	-243 Jan 27 j 04:28	19°♄00'04	
retrograde	-249 Apr 02 j 14:18	19°♄10'29						
opposition	-249 Jun 12 j 14:15	15°♄52'07	0°52'59		conjunction	-243 Feb 13 j 05:06	21°♄06'31	-1°-42'-14
min. Earth dist.	-249 Jun 12 j 21:02	15°♄50'52	9.07610 AU		minimum elong	-243 Feb 13 j 05:03	21°♄06'30	1°42'15
direct	-249 Aug 22 j 03:41	12°♄34'13			max. Earth dist.	-243 Feb 12 j 22:22	21°♄04'25	10.51095 AU
evening set	-249 Nov 30 j 07:13	19°♄31'30			morning rise	-243 Mar 02 j 10:30	23°♄14'27	
						-243 May 10 j 23:12	0°♄♂	
conjunction	-249 Dec 16 j 21:24	21°♄28'12	0°30'10		retrograde	-243 Jun 16 j 16:00	1°♄07'06	
minimum elong	-249 Dec 16 j 21:26	21°♄28'12	0°30'10			-243 Jul 23 j 20:42	30°♄♄	
max. Earth dist.	-249 Dec 16 j 12:48	21°♄25'40	11.04629 AU		opposition	-243 Aug 25 j 12:30	27°♄40'46	-2°-18'-51
morning rise	-248 Jan 02 j 13:10	23°♄25'23			min. Earth dist.	-243 Aug 25 j 17:16	27°♄39'50	8.44513 AU

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 14

Attention, astronomical year style is used: The year -243 in astronomical counting style is the year 244 BCE in historical counting style.

direct	-243 Nov 01 j 01:09	24°  19'04		conjunction	-236 May 24 j 06:08	28°  17'03	-1°-20'-46
	-242 Jan 24 j 16:05	0° 		minimum elong	-236 May 24 j 06:12	28°  17'04	1°20'46
evening set	-242 Feb 09 j 08:20	1°  53'08		max. Earth dist.	-236 May 24 j 13:38	28°  19'30	9.95615 AU
					-236 Jun 06 j 08:37	0° 	
conjunction	-242 Feb 26 j 12:24	4°  02'21	-2°00'-36	morning rise	-236 Jun 11 j 10:48	0°  39'30	
minimum elong	-242 Feb 26 j 12:21	4°  02'20	2°00'37	retrograde	-236 Sep 24 j 19:02	9°  00'46	
max. Earth dist.	-242 Feb 26 j 07:42	4°  00'52	10.37906 AU	opposition	-236 Nov 30 j 10:05	5°  31'03	-1°-22'-36
morning rise	-242 Mar 15 j 21:14	6°  13'07		min. Earth dist.	-236 Nov 30 j 03:43	5°  32'22	7.96930 AU
retrograde	-242 Jun 30 j 17:37	14°  16'24		direct	-235 Feb 05 j 03:09	2°  01'12	
opposition	-242 Sep 08 j 01:52	10°  48'39	-2°-38'-31	evening set	-235 May 21 j 10:14	10°  20'07	
min. Earth dist.	-242 Sep 08 j 04:50	10°  48'04	8.31594 AU				
direct	-242 Nov 14 j 02:58	7°  25'39		conjunction	-235 Jun 08 j 15:34	12°  42'09	0°-50'-19
evening set	-241 Feb 22 j 23:52	15°  09'36		minimum elong	-235 Jun 08 j 15:37	12°  42'10	0°50'19
				max. Earth dist.	-235 Jun 09 j 00:34	12°  45'06	9.98952 AU
conjunction	-241 Mar 12 j 07:46	17°  21'41	-2°-13'-5	morning rise	-235 Jun 26 j 20:12	15°  03'57	
minimum elong	-241 Mar 12 j 07:44	17°  21'41	2°13'06	retrograde	-235 Oct 09 j 04:27	23°  18'01	
max. Earth dist.	-241 Mar 12 j 05:14	17°  20'53	10.25352 AU	opposition	-235 Dec 14 j 16:18	19°  49'20	0°-42'-28
morning rise	-241 Mar 29 j 20:20	19°  35'20		min. Earth dist.	-235 Dec 14 j 08:53	19°  50'52	8.01774 AU
retrograde	-241 Jul 15 j 03:24	27°  48'11		direct	-234 Feb 19 j 20:22	16°  19'12	
opposition	-241 Sep 21 j 21:54	24°  19'12	-2°-50'-9	evening set	-234 Jun 05 j 15:16	24°  36'02	
min. Earth dist.	-241 Sep 21 j 22:42	24°  19'02	8.19691 AU				
direct	-241 Nov 27 j 12:22	20°  54'49		conjunction	-234 Jun 23 j 20:12	26°  56'52	0°-17'-5
evening set	-240 Mar 08 j 02:40	28°  48'31		minimum elong	-234 Jun 23 j 20:13	26°  56'52	0°17'05
	-240 Mar 17 j 10:18	0° 		max. Earth dist.	-234 Jun 24 j 06:04	27°  00'04	10.05312 AU
				morning rise	-234 Jul 11 j 23:00	29°  17'01	
conjunction	-240 Mar 25 j 14:43	1°  03'25	-2°-18'-28		-234 Jul 17 j 15:27	0° 	
minimum elong	-240 Mar 25 j 14:43	1°  03'25	2°18'29	retrograde	-234 Oct 23 j 06:29	7°  22'05	
max. Earth dist.	-240 Mar 25 j 14:15	1°  03'16	10.14201 AU	opposition	-234 Dec 28 j 18:13	3°  54'43	0°00'-23
morning rise	-240 Apr 12 j 07:15	3°  19'50		min. Earth dist.	-234 Dec 28 j 10:21	3°  56'20	8.09460 AU
retrograde	-240 Jul 28 j 18:58	11°  40'23		asc. node	-233 Jan 01 j 07:16	3°  37'14	
opposition	-240 Oct 04 j 23:43	8°  10'26	-2°-52'-18	direct	-233 Mar 06 j 10:40	0°  24'40	
min. Earth dist.	-240 Oct 04 j 22:45	8°  10'38	8.09538 AU	evening set	-233 Jun 20 j 14:18	8°  37'12	
direct	-240 Dec 10 j 07:05	4°  44'39					
evening set	-239 Mar 22 j 16:02	12°  47'18		conjunction	-233 Jul 08 j 17:04	10°  55'58	0°16'41
				minimum elong	-233 Jul 08 j 17:03	10°  55'58	0°16'42
conjunction	-239 Apr 09 j 08:32	15°  04'52	-2°-15'-53	max. Earth dist.	-233 Jul 09 j 03:06	10°  59'11	10.14266 AU
minimum elong	-239 Apr 09 j 08:34	15°  04'52	2°15'53	morning rise	-233 Jul 26 j 16:29	13°  13'40	
max. Earth dist.	-239 Apr 09 j 10:05	15°  05'22	10.05161 AU	retrograde	-233 Nov 06 j 00:58	21°  08'41	
morning rise	-239 Apr 27 j 05:06	17°  23'45		opposition	-232 Jan 11 j 14:43	17°  42'50	0°40'48
retrograde	-239 Aug 12 j 13:26	25°  49'18		min. Earth dist.	-232 Jan 11 j 07:21	17°  44'20	8.19499 AU
opposition	-239 Oct 19 j 05:58	22°  18'47	-2°-44'-9	direct	-232 Mar 19 j 20:32	14°  13'12	
min. Earth dist.	-239 Oct 19 j 03:36	22°  19'16	8.01781 AU	evening set	-232 Jul 04 j 04:57	22°  19'41	
direct	-239 Dec 24 j 10:11	18°  51'40					
evening set	-238 Apr 06 j 14:09	27°  01'48		conjunction	-232 Jul 22 j 04:00	24°  35'42	0°48'46
				minimum elong	-232 Jul 22 j 03:58	24°  35'41	0°48'47
conjunction	-238 Apr 24 j 11:07	29°  01'38	-2°-5'00	max. Earth dist.	-232 Jul 22 j 13:06	24°  38'35	10.25249 AU
minimum elong	-238 Apr 24 j 11:10	29°  01'39	2°05'01	morning rise	-232 Aug 08 j 22:55	26°  50'22	
max. Earth dist.	-238 Apr 24 j 14:35	29°  22'46	9.98811 AU		-232 Sep 04 j 18:52	0° 	
	-238 Apr 29 j 08:08	0° 		retrograde	-232 Nov 18 j 10:40	4°  35'00	
morning rise	-238 May 12 j 11:23	1°  42'29		opposition	-231 Jan 24 j 05:04	1°  10'47	1°18'37
retrograde	-238 Aug 27 j 09:13	10°  09'52		min. Earth dist.	-231 Jan 23 j 22:41	1°  12'04	8.31266 AU
opposition	-238 Nov 02 j 15:05	6°  39'12	-2°-25'-41		-231 Feb 08 j 04:19	30° 	
min. Earth dist.	-238 Nov 02 j 11:32	6°  39'56	7.96917 AU	direct	-231 Apr 03 j 00:59	27°  41'54	
direct	-237 Jan 07 j 19:45	3°  10'55			-231 May 25 j 23:19	0° 	
evening set	-237 Apr 21 j 18:31	11°  26'28		evening set	-231 Jul 18 j 09:45	5°  41'04	
conjunction	-237 May 09 j 19:25	13°  47'54	-1°-46'-15	conjunction	-231 Aug 05 j 03:59	7°  53'53	1°17'29
minimum elong	-237 May 09 j 19:29	13°  47'56	1°46'15	minimum elong	-231 Aug 05 j 03:56	7°  53'52	1°17'30
max. Earth dist.	-237 May 10 j 00:55	13°  49'43	9.95558 AU	max. Earth dist.	-231 Aug 05 j 11:18	7°  56'11	10.37602 AU
	-237 May 18 j 22:59	15° 		morning rise	-231 Aug 22 j 17:37	10°  05'15	
morning rise	-237 May 27 j 22:31	16°  10'01			-231 Oct 06 j 17:27	15° 	
retrograde	-237 Sep 11 j 03:51	24°  35'54		retrograde	-231 Dec 01 j 09:38	17°  39'44	
opposition	-237 Nov 17 j 01:07	21°  05'31	-1°-57'-52		-230 Jan 28 j 11:10	15° 	
min. Earth dist.	-237 Nov 16 j 20:10	21°  06'32	7.95265 AU	opposition	-230 Feb 06 j 12:48	14°  17'10	1°51'11
direct	-236 Jan 22 j 10:06	17°  36'18		min. Earth dist.	-230 Feb 06 j 07:19	14°  18'15	8.44084 AU
evening set	-236 May 06 j 02:17	25°  54'49		direct	-230 Apr 17 j 00:11	10°  49'19	
					-230 Jun 29 j 16:47	15° 	

Attention, astronomical year style is used: The year -230 in astronomical counting style is the year 231 BCE in historical counting style.

evening set	-230 Aug 01 j 03:32	18° $\Omega$ 40'20			-224 Oct 12 j 01:28	0° $\mathbb{M}$	
conjunction	-230 Aug 18 j 16:26	20° $\Omega$ 49'48	1°41'31	conjunction	-224 Oct 28 j 08:22	1° $\mathbb{M}$ 53'44	2°04'07
minimum elong	-230 Aug 18 j 16:22	20° $\Omega$ 49'47	1°41'31	minimum elong	-224 Oct 28 j 08:24	1° $\mathbb{M}$ 53'44	2°04'07
max. Earth dist.	-230 Aug 18 j 22:06	20° $\Omega$ 51'34	10.50653 AU	max. Earth dist.	-224 Oct 28 j 04:22	1° $\mathbb{M}$ 52'34	11.10669 AU
morning rise	-230 Sep 05 j 00:33	22° $\Omega$ 57'47		morning rise	-224 Nov 13 j 19:57	3° $\mathbb{M}$ 48'52	
	-230 Nov 23 j 12:50	0° $\mathbb{M}$		retrograde	-223 Feb 21 j 10:30	10° $\mathbb{M}$ 42'45	
retrograde	-230 Dec 14 j 01:40	0° $\mathbb{M}$ 22'51		opposition	-223 May 02 j 12:43	7° $\mathbb{M}$ 26'23	2°22'57
	-229 Jan 03 j 20:08	30° $\mathbb{R}$ $\Omega$		min. Earth dist.	-223 May 02 j 16:46	7° $\mathbb{M}$ 25'39	9.12585 AU
opposition	-229 Feb 19 j 14:09	27° $\Omega$ 01'49	2°17'14	direct	-223 Jul 12 j 22:43	4° $\mathbb{M}$ 07'08	
min. Earth dist.	-229 Feb 19 j 09:12	27° $\Omega$ 02'47	8.57275 AU	evening set	-223 Oct 23 j 00:32	11° $\mathbb{M}$ 08'19	
direct	-229 Apr 30 j 15:01	23° $\Omega$ 35'14					
	-229 Aug 03 j 09:52	0° $\mathbb{M}$		conjunction	-223 Nov 08 j 13:34	13° $\mathbb{M}$ 03'33	1°49'10
evening set	-229 Aug 14 j 09:49	1° $\mathbb{M}$ 17'38		minimum elong	-223 Nov 08 j 13:36	13° $\mathbb{M}$ 03'34	1°49'10
				max. Earth dist.	-223 Nov 08 j 07:42	13° $\mathbb{M}$ 01'51	11.13565 AU
conjunction	-229 Aug 31 j 17:27	3° $\mathbb{M}$ 23'52	2°00'00	morning rise	-223 Nov 25 j 00:55	14° $\mathbb{M}$ 58'22	
minimum elong	-229 Aug 31 j 17:24	3° $\mathbb{M}$ 23'51	2°00'00		-223 Nov 25 j 06:37	15° $\mathbb{M}$	
max. Earth dist.	-229 Aug 31 j 22:01	3° $\mathbb{M}$ 25'16	10.63738 AU	retrograde	-222 Mar 05 j 00:04	21° $\mathbb{M}$ 52'22	
morning rise	-229 Sep 17 j 20:10	5° $\mathbb{M}$ 28'36		opposition	-222 May 14 j 11:15	18° $\mathbb{M}$ 35'48	2°02'06
retrograde	-229 Dec 26 j 11:33	12° $\mathbb{M}$ 45'13		min. Earth dist.	-222 May 14 j 17:24	18° $\mathbb{M}$ 34'41	9.14136 AU
opposition	-228 Mar 03 j 09:17	9° $\mathbb{M}$ 25'35	2°36'02	direct	-222 Jul 24 j 17:32	15° $\mathbb{M}$ 17'14	
min. Earth dist.	-228 Mar 03 j 05:14	9° $\mathbb{M}$ 26'22	8.70182 AU	evening set	-222 Nov 03 j 04:32	22° $\mathbb{M}$ 15'35	
direct	-228 May 12 j 20:41	6° $\mathbb{M}$ 00'22					
evening set	-228 Aug 26 j 05:20	13° $\mathbb{M}$ 34'10		conjunction	-222 Nov 19 j 17:09	24° $\mathbb{M}$ 10'44	1°30'09
				minimum elong	-222 Nov 19 j 17:11	24° $\mathbb{M}$ 10'44	1°30'09
conjunction	-228 Sep 12 j 08:02	15° $\mathbb{M}$ 37'26	2°12'31	max. Earth dist.	-222 Nov 19 j 09:01	24° $\mathbb{M}$ 08'21	11.13842 AU
minimum elong	-228 Sep 12 j 08:00	15° $\mathbb{M}$ 37'25	2°12'31	morning rise	-222 Dec 06 j 05:10	26° $\mathbb{M}$ 05'43	
max. Earth dist.	-228 Sep 12 j 11:36	15° $\mathbb{M}$ 38'30	10.76237 AU		-221 Jan 12 j 17:38	0° $\mathbb{Z}$	
morning rise	-228 Sep 29 j 05:51	17° $\mathbb{M}$ 39'16		retrograde	-221 Mar 16 j 16:25	3° $\mathbb{Z}$ 01'27	
retrograde	-227 Jan 06 j 14:00	24° $\mathbb{M}$ 48'32			-221 May 22 j 20:18	30° $\mathbb{R}$ $\mathbb{M}$	
opposition	-227 Mar 15 j 22:46	21° $\mathbb{M}$ 30'07	2°47'20	opposition	-221 May 26 j 09:47	29° $\mathbb{M}$ 44'23	1°36'42
min. Earth dist.	-227 Mar 15 j 20:35	21° $\mathbb{M}$ 30'32	8.82220 AU	min. Earth dist.	-221 May 26 j 17:12	29° $\mathbb{M}$ 43'01	9.13076 AU
direct	-227 May 25 j 18:53	18° $\mathbb{M}$ 06'16		direct	-221 Aug 05 j 11:46	26° $\mathbb{M}$ 26'13	
evening set	-227 Sep 07 j 14:46	25° $\mathbb{M}$ 31'50			-221 Oct 13 j 10:53	0° $\mathbb{Z}$	
				evening set	-221 Nov 14 j 07:48	3° $\mathbb{Z}$ 23'12	
conjunction	-227 Sep 24 j 13:00	27° $\mathbb{M}$ 32'29	2°18'58				
minimum elong	-227 Sep 24 j 13:00	27° $\mathbb{M}$ 32'29	2°18'57	conjunction	-221 Nov 30 j 20:48	5° $\mathbb{Z}$ 18'44	1°07'42
max. Earth dist.	-227 Sep 24 j 14:31	27° $\mathbb{M}$ 32'56	10.87611 AU	minimum elong	-221 Nov 30 j 20:50	5° $\mathbb{Z}$ 18'44	1°07'41
morning rise	-227 Oct 11 j 06:49	29° $\mathbb{M}$ 31'52		max. Earth dist.	-221 Nov 30 j 12:03	5° $\mathbb{Z}$ 16'10	11.11542 AU
	-227 Oct 15 j 07:28	0° $\mathbb{Z}$		morning rise	-221 Dec 17 j 09:59	7° $\mathbb{Z}$ 14'22	
retrograde	-226 Jan 18 j 11:45	6° $\mathbb{Z}$ 35'06		retrograde	-220 Mar 27 j 11:14	14° $\mathbb{Z}$ 13'25	
opposition	-226 Mar 28 j 07:34	3° $\mathbb{Z}$ 17'39	2°51'16	opposition	-220 Jun 06 j 09:35	10° $\mathbb{Z}$ 55'31	1°07'32
min. Earth dist.	-226 Mar 28 j 07:29	3° $\mathbb{Z}$ 17'40	8.92885 AU	min. Earth dist.	-220 Jun 06 j 17:07	10° $\mathbb{Z}$ 54'08	9.09477 AU
	-226 May 28 j 10:21	30° $\mathbb{R}$ $\mathbb{M}$		direct	-220 Aug 16 j 04:21	7° $\mathbb{Z}$ 37'32	
direct	-226 Jun 07 j 10:53	29° $\mathbb{M}$ 55'08		evening set	-220 Nov 24 j 12:10	14° $\mathbb{Z}$ 34'38	
	-226 Jun 17 j 10:44	0° $\mathbb{Z}$					
evening set	-226 Sep 19 j 15:00	7° $\mathbb{Z}$ 13'03		conjunction	-220 Dec 11 j 02:03	16° $\mathbb{Z}$ 30'58	0°42'31
				minimum elong	-220 Dec 11 j 02:05	16° $\mathbb{Z}$ 30'58	0°42'31
conjunction	-226 Oct 06 j 09:32	9° $\mathbb{Z}$ 11'34	2°19'29	max. Earth dist.	-220 Dec 10 j 17:30	16° $\mathbb{Z}$ 28'27	11.06766 AU
minimum elong	-226 Oct 06 j 09:32	9° $\mathbb{Z}$ 11'34	2°19'29	morning rise	-220 Dec 27 j 16:45	18° $\mathbb{Z}$ 27'37	
max. Earth dist.	-226 Oct 06 j 08:28	9° $\mathbb{Z}$ 11'15	10.97400 AU	retrograde	-219 Apr 08 j 12:02	25° $\mathbb{Z}$ 31'37	
morning rise	-226 Oct 23 j 00:26	11° $\mathbb{Z}$ 09'01		opposition	-219 Jun 18 j 11:49	22° $\mathbb{Z}$ 12'38	0°35'29
retrograde	-225 Jan 30 j 04:19	18° $\mathbb{Z}$ 07'37		min. Earth dist.	-219 Jun 18 j 19:12	22° $\mathbb{Z}$ 11'16	9.03492 AU
opposition	-225 Apr 09 j 12:11	14° $\mathbb{Z}$ 50'48	2°48'10	direct	-219 Aug 27 j 21:46	18° $\mathbb{Z}$ 54'34	
min. Earth dist.	-225 Apr 09 j 13:36	14° $\mathbb{Z}$ 50'32	9.01742 AU	evening set	-219 Dec 05 j 19:38	25° $\mathbb{Z}$ 53'21	
direct	-225 Jun 19 j 20:07	11° $\mathbb{Z}$ 29'32					
evening set	-225 Oct 01 j 07:38	18° $\mathbb{Z}$ 40'41		conjunction	-219 Dec 22 j 10:40	27° $\mathbb{Z}$ 50'52	0°15'26
				minimum elong	-219 Dec 22 j 10:40	27° $\mathbb{Z}$ 50'52	0°15'27
conjunction	-225 Oct 17 j 23:29	20° $\mathbb{Z}$ 37'34	2°14'23	behind sun begin	-219 Dec 22 j 08:25	27° $\mathbb{Z}$ 50'12	
minimum elong	-225 Oct 17 j 23:30	20° $\mathbb{Z}$ 37'35	2°14'23	behind sun end	-219 Dec 22 j 12:56	27° $\mathbb{Z}$ 51'32	
max. Earth dist.	-225 Oct 17 j 20:39	20° $\mathbb{Z}$ 36'44	11.05203 AU	max. Earth dist.	-219 Dec 22 j 01:24	27° $\mathbb{Z}$ 48'08	10.99705 AU
morning rise	-225 Nov 03 j 12:20	22° $\mathbb{Z}$ 33'36		morning rise	-218 Jan 08 j 03:29	29° $\mathbb{Z}$ 48'58	
retrograde	-224 Feb 10 j 19:17	29° $\mathbb{Z}$ 29'03			-218 Jan 09 j 17:35	0° $\mathbb{Z}$	
opposition	-224 Apr 20 j 13:22	26° $\mathbb{Z}$ 12'35	2°38'32	retrograde	-218 Apr 20 j 17:44	6° $\mathbb{Z}$ 59'22	
min. Earth dist.	-224 Apr 20 j 15:52	26° $\mathbb{Z}$ 12'08	9.08408 AU	opposition	-218 Jun 30 j 17:25	3° $\mathbb{Z}$ 39'07	0°01'33
direct	-224 Jul 01 j 00:38	22° $\mathbb{Z}$ 52'24		min. Earth dist.	-218 Jul 01 j 01:19	3° $\mathbb{Z}$ 37'39	8.95359 AU
evening set	-224 Oct 11 j 18:14	29° $\mathbb{Z}$ 57'56		desc. node	-218 Jul 17 j 16:36	2° $\mathbb{Z}$ 25'16	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 16

Attention, astronomical year style is used: The year -218 in astronomical counting style is the year 219 BCE in historical counting style.

direct	-218 Sep 08 j 15:11	0°♄20'41		direct	-212 Nov 20 j 18:06	14°♄57'36	
evening set	-218 Dec 17 j 07:47	7°♄22'49		evening set	-211 Mar 02 j 00:25	22°♄47'32	
conjunction	-217 Jan 03 j 00:19	9°♄21'52	0°-12'-43	conjunction	-211 Mar 19 j 10:29	25°♄01'20	-2°-16'-59
minimum elong	-217 Jan 03 j 00:19	9°♄21'52	0°12'44	minimum elong	-211 Mar 19 j 10:28	25°♄01'19	2°16'59
behind sun begin	-217 Jan 02 j 19:49	9°♄20'32		max. Earth dist.	-211 Mar 19 j 09:25	25°♄00'59	10.17696 AU
behind sun end	-217 Jan 03 j 04:48	9°♄23'11		morning rise	-211 Apr 06 j 01:21	27°♄16'41	
max. Earth dist.	-217 Jan 02 j 14:33	9°♄18'57	10.90623 AU		-211 Apr 28 j 12:08	0°♄	
morning rise	-217 Jan 19 j 19:40	11°♄21'45		retrograde	-211 Jul 22 j 11:04	5°♄34'36	
retrograde	-217 May 03 j 04:27	18°♄40'03		opposition	-211 Sep 28 j 23:12	2°♄04'42	-2°-52'-37
opposition	-217 Jul 13 j 03:20	15°♄18'21	0°-33'-7	min. Earth dist.	-211 Sep 28 j 22:55	2°♄04'45	8.12744 AU
min. Earth dist.	-217 Jul 13 j 11:21	15°♄16'50	8.85370 AU		-211 Oct 26 j 10:49	30°♄	
direct	-217 Sep 20 j 13:32	11°♄59'19		direct	-211 Dec 04 j 10:20	28°♄39'15	
evening set	-217 Dec 29 j 02:21	19°♄06'26			-210 Jan 11 j 15:46	0°♄	
				evening set	-210 Mar 16 j 09:24	6°♄38'31	
conjunction	-216 Jan 14 j 20:51	21°♄07'21	0°-40'-48	conjunction	-210 Apr 02 j 23:58	8°♄55'03	-2°-18'-4
minimum elong	-216 Jan 14 j 20:50	21°♄07'21	0°40'50	minimum elong	-210 Apr 02 j 23:59	8°♄55'04	2°18'05
max. Earth dist.	-216 Jan 14 j 11:55	21°♄04'39	10.79838 AU	max. Earth dist.	-210 Apr 03 j 01:52	8°♄55'40	10.08026 AU
morning rise	-216 Jan 31 j 18:46	23°♄09'19		morning rise	-210 Apr 20 j 18:46	11°♄13'00	
	-216 Apr 17 j 14:35	0°♄		retrograde	-210 Aug 06 j 04:11	19°♄37'10	
retrograde	-216 May 15 j 00:32	0°♄36'48		opposition	-210 Oct 13 j 03:50	16°♄06'43	-2°-49'-9
	-216 Jun 11 j 17:50	30°♄		min. Earth dist.	-210 Oct 13 j 01:18	16°♄07'14	8.04242 AU
opposition	-216 Jul 24 j 18:24	27°♄13'34	-1°-7'-16	direct	-210 Dec 18 j 09:46	12°♄40'07	
min. Earth dist.	-216 Jul 25 j 01:30	27°♄12'13	8.73893 AU	evening set	-209 Mar 31 j 04:08	20°♄47'33	
direct	-216 Oct 01 j 16:18	23°♄53'46					
	-216 Dec 30 j 16:35	0°♄		conjunction	-209 Apr 17 j 23:14	23°♄06'32	-2°-10'-55
evening set	-215 Jan 09 j 05:02	1°♄07'22		minimum elong	-209 Apr 17 j 23:17	23°♄06'33	2°10'56
conjunction	-215 Jan 26 j 01:52	3°♄10'27	-1°-7'-45	max. Earth dist.	-209 Apr 18 j 04:01	23°♄08'06	10.00809 AU
minimum elong	-215 Jan 26 j 01:50	3°♄10'27	1°07'47	morning rise	-209 May 05 j 21:48	25°♄26'40	
max. Earth dist.	-215 Jan 25 j 18:34	3°♄08'13	10.67763 AU		-209 Jun 13 j 12:34	0°♄	
morning rise	-215 Feb 12 j 02:33	5°♄14'48		retrograde	-209 Aug 21 j 01:11	3°♄54'08	
retrograde	-215 May 28 j 05:17	12°♄52'29		opposition	-209 Oct 27 j 12:18	0°♄23'31	-2°-35'-14
opposition	-215 Aug 06 j 15:36	9°♄27'38	-1°-39'-20	min. Earth dist.	-209 Oct 27 j 07:36	0°♄24'30	7.98440 AU
min. Earth dist.	-215 Aug 06 j 20:58	9°♄26'36	8.61386 AU		-209 Nov 01 j 06:11	30°♄	
direct	-215 Oct 13 j 23:25	6°♄06'56		direct	-208 Jan 01 j 15:29	26°♄55'56	
evening set	-214 Jan 21 j 17:15	13°♄28'23			-208 Feb 29 j 14:36	0°♄	
	-214 Feb 03 j 03:23	15°♄		evening set	-208 Apr 14 j 06:17	5°♄09'38	
conjunction	-214 Feb 07 j 16:42	15°♄33'54	-1°-32'-14	conjunction	-208 May 02 j 05:37	7°♄30'31	-1°-55'-36
minimum elong	-214 Feb 07 j 16:40	15°♄33'53	1°32'16	minimum elong	-208 May 02 j 05:41	7°♄30'32	1°55'36
max. Earth dist.	-214 Feb 07 j 10:23	15°♄31'57	10.54899 AU	max. Earth dist.	-208 May 02 j 12:54	7°♄32'55	9.96550 AU
morning rise	-214 Feb 24 j 20:32	17°♄40'50		morning rise	-208 May 20 j 07:25	9°♄52'13	
retrograde	-214 Jun 10 j 18:43	25°♄29'18			-208 Jul 03 j 11:08	15°♄	
opposition	-214 Aug 19 j 19:26	22°♄02'55	-2°-7'-42	retrograde	-208 Sep 03 j 22:36	18°♄19'38	
min. Earth dist.	-214 Aug 19 j 23:30	22°♄02'07	8.48378 AU		-208 Nov 07 j 19:09	15°♄	
direct	-214 Oct 26 j 13:48	18°♄41'08		opposition	-208 Nov 09 j 22:39	14°♄49'18	-2°-11'-24
evening set	-213 Feb 03 j 16:19	26°♄11'33		min. Earth dist.	-208 Nov 09 j 16:23	14°♄50'36	7.95749 AU
				direct	-207 Jan 15 j 03:33	11°♄20'51	
conjunction	-213 Feb 20 j 18:44	28°♄19'43	-1°-52'-52		-207 Mar 21 j 04:27	15°♄	
minimum elong	-213 Feb 20 j 18:41	28°♄19'43	1°52'53	evening set	-207 Apr 29 j 13:32	19°♄38'34	
max. Earth dist.	-213 Feb 20 j 13:16	28°♄18'00	10.41823 AU				
	-213 Mar 06 j 02:54	0°♄		conjunction	-207 May 17 j 16:15	22°♄00'34	-1°-32'-55
morning rise	-213 Mar 10 j 02:01	0°♄29'25		minimum elong	-207 May 17 j 16:19	22°♄00'35	1°32'56
retrograde	-213 Jun 24 j 17:06	8°♄28'38		max. Earth dist.	-207 May 18 j 01:05	22°♄03'29	9.95546 AU
opposition	-213 Sep 02 j 06:01	5°♄00'52	-2°-30'-31	morning rise	-207 Jun 04 j 20:16	24°♄23'00	
min. Earth dist.	-213 Sep 02 j 09:03	5°♄00'16	8.35482 AU		-207 Jul 24 j 04:36	0°♄	
direct	-213 Nov 08 j 11:13	1°♄37'53		retrograde	-207 Sep 18 j 16:56	2°♄46'58	
evening set	-212 Feb 17 j 02:40	9°♄18'00			-207 Nov 15 j 18:10	30°♄	
				opposition	-207 Nov 24 j 08:48	29°♄17'18	-1°-39'-9
conjunction	-212 Mar 05 j 08:36	11°♄28'57	-2°-8'-13	min. Earth dist.	-207 Nov 24 j 01:51	29°♄18'45	7.96356 AU
minimum elong	-212 Mar 05 j 08:34	11°♄28'56	2°08'14	direct	-206 Jan 29 j 19:52	25°♄48'13	
max. Earth dist.	-212 Mar 05 j 04:47	11°♄27'44	10.29191 AU		-206 Apr 10 j 09:41	0°♄	
morning rise	-212 Mar 22 j 19:35	13°♄41'30		evening set	-206 May 14 j 22:26	4°♄07'20	
retrograde	-212 Jul 07 j 22:50	21°♄50'48					
opposition	-212 Sep 14 j 23:32	18°♄21'50	-2°-46'-2	conjunction	-206 Jun 02 j 03:12	6°♄29'31	-1°-4'-25
min. Earth dist.	-212 Sep 15 j 01:16	18°♄21'29	8.23376 AU	minimum elong	-206 Jun 02 j 03:15	6°♄29'32	1°04'25

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Attention, astronomical year style is used: The year -206 in astronomical counting style is the year 207 BCE in historical counting style.

max. Earth dist.	-206 Jun 02 j 12:44	6° $\Pi$ 32'39	9.97844 AU	minimum elong	-200 Aug 25 j 09:37	28° $\Omega$ 07'43	1°52'29
morning rise	-206 Jun 20 j 07:59	8° $\Pi$ 51'42		max. Earth dist.	-200 Aug 25 j 13:58	28° $\Omega$ 09'04	10.57603 AU
retrograde	-206 Oct 03 j 05:37	17° $\Pi$ 09'18			-200 Sep 09 j 16:26	0° $\mathbb{M}$	
opposition	-206 Dec 08 j 16:55	13° $\Pi$ 40'38	-1°00'-49	morning rise	-200 Sep 11 j 14:45	0° $\mathbb{M}$ 13'59	
min. Earth dist.	-206 Dec 08 j 09:41	13° $\Pi$ 42'08	8.00191 AU	retrograde	-200 Dec 20 j 11:16	7° $\mathbb{M}$ 34'40	
direct	-205 Feb 13 j 14:15	10° $\Pi$ 11'10		opposition	-199 Feb 26 j 03:38	4° $\mathbb{M}$ 14'30	2°28'37
evening set	-205 May 30 j 05:22	18° $\Pi$ 29'03		min. Earth dist.	-199 Feb 26 j 01:05	4° $\mathbb{M}$ 14'59	8.63926 AU
				direct	-199 May 07 j 09:10	0° $\mathbb{M}$ 48'35	
conjunction	-205 Jun 17 j 10:29	20° $\Pi$ 50'25	0°-32'-9	evening set	-199 Aug 21 j 00:33	8° $\mathbb{M}$ 26'44	
minimum elong	-205 Jun 17 j 10:30	20° $\Pi$ 50'26	0°32'09				
max. Earth dist.	-205 Jun 17 j 20:07	20° $\Pi$ 53'33	10.03225 AU	conjunction	-199 Sep 07 j 05:21	10° $\mathbb{M}$ 31'25	2°07'43
morning rise	-205 Jul 05 j 14:19	23° $\Pi$ 11'20		minimum elong	-199 Sep 07 j 05:19	10° $\mathbb{M}$ 31'24	2°07'43
	-205 Sep 09 j 02:13	0° $\mathbb{S}$		max. Earth dist.	-199 Sep 07 j 07:17	10° $\mathbb{M}$ 32'00	10.69949 AU
retrograde	-205 Oct 17 j 10:05	1° $\mathbb{S}$ 20'26		morning rise	-199 Sep 24 j 05:26	12° $\mathbb{M}$ 34'39	
	-205 Nov 25 j 04:52	30° $\mathbb{R}$ $\Pi$		retrograde	-198 Jan 01 j 15:38	19° $\mathbb{M}$ 47'31	
opposition	-205 Dec 22 j 21:09	27° $\Pi$ 53'01	0°-19'-16	opposition	-198 Mar 10 j 20:07	16° $\mathbb{M}$ 28'27	2°43'18
min. Earth dist.	-205 Dec 22 j 13:55	27° $\Pi$ 54'30	8.06906 AU	min. Earth dist.	-198 Mar 10 j 18:32	16° $\mathbb{M}$ 28'45	8.75955 AU
direct	-204 Feb 28 j 07:02	24° $\Pi$ 23'27		direct	-198 May 20 j 13:08	13° $\mathbb{M}$ 03'43	
	-204 May 22 j 16:16	0° $\mathbb{S}$		evening set	-198 Sep 02 j 14:46	20° $\mathbb{M}$ 33'29	
evening set	-204 Jun 13 j 07:32	2° $\mathbb{S}$ 37'50					
asc. node	-204 Jun 13 j 03:25	2° $\mathbb{S}$ 36'32		conjunction	-198 Sep 19 j 14:55	22° $\mathbb{M}$ 35'24	2°16'53
				minimum elong	-198 Sep 19 j 14:54	22° $\mathbb{M}$ 35'23	2°16'53
conjunction	-204 Jul 01 j 11:17	4° $\mathbb{S}$ 57'29	0°01'41	max. Earth dist.	-198 Sep 19 j 15:29	22° $\mathbb{M}$ 35'34	10.81451 AU
minimum elong	-204 Jul 01 j 11:17	4° $\mathbb{S}$ 57'29	0°01'41	morning rise	-198 Oct 06 j 10:39	24° $\mathbb{M}$ 35'59	
behind sun begin	-204 Jul 01 j 03:56	4° $\mathbb{S}$ 55'08			-198 Nov 29 j 14:01	0° $\mathbb{A}$	
behind sun end	-204 Jul 01 j 18:38	4° $\mathbb{S}$ 59'49		retrograde	-197 Jan 13 j 16:20	1° $\mathbb{A}$ 42'18	
max. Earth dist.	-204 Jul 01 j 20:13	5° $\mathbb{S}$ 00'20	10.11207 AU		-197 Mar 01 j 06:22	30° $\mathbb{R}$ $\mathbb{M}$	
morning rise	-204 Jul 19 j 12:32	7° $\mathbb{S}$ 16'15		opposition	-197 Mar 23 j 07:14	28° $\mathbb{M}$ 24'05	2°50'31
retrograde	-204 Oct 30 j 07:37	15° $\mathbb{S}$ 15'38		min. Earth dist.	-197 Mar 23 j 06:28	28° $\mathbb{M}$ 24'13	8.86879 AU
opposition	-203 Jan 04 j 20:07	11° $\mathbb{S}$ 49'38	0°22'37	direct	-197 Jun 02 j 09:04	25° $\mathbb{M}$ 00'34	
min. Earth dist.	-203 Jan 04 j 13:07	11° $\mathbb{S}$ 51'04	8.15942 AU		-197 Aug 24 j 14:24	0° $\mathbb{A}$	
direct	-203 Mar 13 j 19:46	8° $\mathbb{S}$ 20'18		evening set	-197 Sep 14 j 19:08	2° $\mathbb{A}$ 22'22	
evening set	-203 Jun 28 j 02:26	16° $\mathbb{S}$ 29'29					
				conjunction	-197 Oct 01 j 15:28	4° $\mathbb{A}$ 21'59	2°20'00
conjunction	-203 Jul 16 j 03:15	18° $\mathbb{S}$ 46'42	0°34'43	minimum elong	-197 Oct 01 j 15:28	4° $\mathbb{A}$ 21'59	2°20'00
minimum elong	-203 Jul 16 j 03:14	18° $\mathbb{S}$ 46'41	0°34'43	max. Earth dist.	-197 Oct 01 j 15:13	4° $\mathbb{A}$ 21'55	10.91626 AU
max. Earth dist.	-203 Jul 16 j 11:18	18° $\mathbb{S}$ 49'16	10.21187 AU	morning rise	-197 Oct 18 j 07:39	6° $\mathbb{A}$ 20'25	
morning rise	-203 Aug 03 j 00:26	21° $\mathbb{S}$ 02'43		retrograde	-196 Jan 25 j 11:47	13° $\mathbb{A}$ 21'28	
retrograde	-203 Nov 12 j 21:19	28° $\mathbb{S}$ 51'57		opposition	-196 Apr 03 j 13:50	10° $\mathbb{A}$ 03'54	2°50'29
opposition	-202 Jan 18 j 13:23	25° $\mathbb{S}$ 27'30	1°02'13	min. Earth dist.	-196 Apr 03 j 14:26	10° $\mathbb{A}$ 03'47	8.96252 AU
min. Earth dist.	-202 Jan 18 j 06:40	25° $\mathbb{S}$ 28'51	8.26716 AU	direct	-196 Jun 13 j 20:15	6° $\mathbb{A}$ 41'34	
direct	-202 Mar 28 j 03:18	21° $\mathbb{S}$ 58'45		evening set	-196 Sep 25 j 15:19	13° $\mathbb{A}$ 56'14	
evening set	-202 Jul 12 j 12:07	0° $\Omega$ 01'20					
	-202 Jul 12 j 07:49	0° $\Omega$		conjunction	-196 Oct 12 j 08:30	15° $\mathbb{A}$ 54'00	2°17'20
				minimum elong	-196 Oct 12 j 08:31	15° $\mathbb{A}$ 54'00	2°17'20
conjunction	-202 Jul 30 j 08:42	2° $\Omega$ 15'35	1°05'09	max. Earth dist.	-196 Oct 12 j 06:47	15° $\mathbb{A}$ 53'29	11.00078 AU
minimum elong	-202 Jul 30 j 08:39	2° $\Omega$ 15'34	1°05'09	morning rise	-196 Oct 28 j 22:08	17° $\mathbb{A}$ 50'47	
max. Earth dist.	-202 Jul 30 j 16:11	2° $\Omega$ 17'57	10.32618 AU	retrograde	-195 Feb 05 j 03:36	24° $\mathbb{A}$ 48'02	
morning rise	-202 Aug 17 j 00:44	4° $\Omega$ 28'26		opposition	-195 Apr 15 j 16:49	21° $\mathbb{A}$ 30'54	2°43'39
retrograde	-202 Nov 26 j 02:16	12° $\Omega$ 07'37		min. Earth dist.	-195 Apr 15 j 19:29	21° $\mathbb{A}$ 30'24	9.03733 AU
opposition	-201 Feb 01 j 00:31	8° $\Omega$ 44'42	1°37'21	direct	-195 Jun 26 j 02:39	18° $\mathbb{A}$ 09'39	
min. Earth dist.	-201 Jan 31 j 18:43	8° $\Omega$ 45'51	8.38698 AU	evening set	-195 Oct 07 j 04:43	25° $\mathbb{A}$ 18'11	
direct	-201 Apr 11 j 04:42	5° $\Omega$ 16'44					
evening set	-201 Jul 26 j 11:24	13° $\Omega$ 11'41		conjunction	-195 Oct 23 j 19:32	27° $\mathbb{A}$ 14'37	2°09'16
	-201 Aug 10 j 02:01	15° $\Omega$		minimum elong	-195 Oct 23 j 19:34	27° $\mathbb{A}$ 14'37	2°09'16
				max. Earth dist.	-195 Oct 23 j 15:30	27° $\mathbb{A}$ 13'25	11.06522 AU
conjunction	-201 Aug 13 j 02:55	15° $\Omega$ 22'42	1°31'25	morning rise	-195 Nov 09 j 07:45	29° $\mathbb{A}$ 10'17	
minimum elong	-201 Aug 13 j 02:51	15° $\Omega$ 22'41	1°31'25		-195 Nov 16 j 14:30	0° $\mathbb{M}$	
max. Earth dist.	-201 Aug 13 j 09:13	15° $\Omega$ 24'40	10.44957 AU	retrograde	-194 Feb 16 j 17:39	6° $\mathbb{M}$ 05'15	
morning rise	-201 Aug 30 j 13:24	17° $\Omega$ 32'13		opposition	-194 Apr 27 j 17:16	2° $\mathbb{M}$ 48'19	2°30'34
retrograde	-201 Dec 08 j 22:58	25° $\Omega$ 01'46		min. Earth dist.	-194 Apr 27 j 21:08	2° $\mathbb{M}$ 47'36	9.09074 AU
opposition	-200 Feb 14 j 05:11	21° $\Omega$ 40'18	2°06'29		-194 Jun 12 j 00:12	30° $\mathbb{R}$ $\mathbb{A}$	
min. Earth dist.	-200 Feb 14 j 00:56	21° $\Omega$ 41'08	8.51310 AU	direct	-194 Jul 08 j 03:41	29° $\mathbb{A}$ 28'04	
direct	-200 Apr 23 j 22:27	18° $\Omega$ 13'18			-194 Aug 03 j 00:39	0° $\mathbb{M}$	
evening set	-200 Aug 07 j 23:34	25° $\Omega$ 59'58		evening set	-194 Oct 18 j 12:47	6° $\mathbb{M}$ 31'37	
conjunction	-200 Aug 25 j 09:40	28° $\Omega$ 07'44	1°52'29	conjunction	-194 Nov 04 j 02:14	8° $\mathbb{M}$ 27'13	1°56'17

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Attention, astronomical year style is used: The year -194 in astronomical counting style is the year 195 BCE in historical counting style.

minimum elong	-194 Nov 04 j 02:16	8°♄27'14	1°56'17	evening set	-188 Dec 23 j 07:17	14°♄11'59	
max. Earth dist.	-194 Nov 03 j 21:06	8°♄25'42	11.10739 AU				
morning rise	-194 Nov 20 j 13:52	10°♄22'19		conjunction	-187 Jan 09 j 00:50	16°♄11'50	0°-28'-31
	-193 Jan 05 j 13:10	15°♄		minimum elong	-187 Jan 09 j 00:48	16°♄11'50	0°28'32
retrograde	-193 Feb 28 j 07:18	17°♄16'33		max. Earth dist.	-187 Jan 08 j 17:37	16°♄09'41	10.86585 AU
	-193 Apr 25 j 17:37	15°♄		morning rise	-187 Jan 25 j 21:19	18°♄12'38	
opposition	-193 May 09 j 16:01	13°♄59'33	2°11'55	retrograde	-187 May 09 j 19:15	25°♄35'11	
min. Earth dist.	-193 May 09 j 20:17	13°♄58'46	9.12080 AU	opposition	-187 Jul 19 j 14:04	22°♄13'13	0°-52'-21
direct	-193 Jul 20 j 01:28	10°♄40'11		min. Earth dist.	-187 Jul 19 j 19:44	22°♄12'09	8.81239 AU
	-193 Oct 05 j 04:02	15°♄		direct	-187 Sep 26 j 16:35	18°♄54'26	
evening set	-193 Oct 29 j 17:36	17°♄40'05		evening set	-186 Jan 04 j 05:58	26°♄04'10	
conjunction	-193 Nov 15 j 06:32	19°♄35'21	1°38'58	conjunction	-186 Jan 21 j 01:27	28°♄05'58	0°-56'-4
minimum elong	-193 Nov 15 j 06:34	19°♄35'22	1°38'57	minimum elong	-186 Jan 21 j 01:26	28°♄05'58	0°56'05
max. Earth dist.	-193 Nov 15 j 01:10	19°♄33'47	11.12567 AU	max. Earth dist.	-186 Jan 20 j 17:56	28°♄03'41	10.75638 AU
morning rise	-193 Dec 01 j 18:12	21°♄30'20			-186 Feb 05 j 18:46	0°≈	
retrograde	-192 Mar 11 j 00:03	28°♄25'25		morning rise	-186 Feb 07 j 00:49	0°≈08'57	
opposition	-192 May 20 j 14:14	25°♄08'09	1°48'22	retrograde	-186 May 22 j 18:18	7°≈40'56	
min. Earth dist.	-192 May 20 j 19:06	25°♄07'15	9.12645 AU	opposition	-186 Aug 01 j 08:00	4°≈17'32	-1°-25'-26
direct	-192 Jul 30 j 19:37	21°♄49'28		min. Earth dist.	-186 Aug 01 j 13:45	4°≈16'26	8.69688 AU
evening set	-192 Nov 08 j 21:01	28°♄47'08		direct	-186 Oct 08 j 20:59	0°≈57'57	
	-192 Nov 19 j 08:34	0°♄		evening set	-185 Jan 16 j 13:18	8°≈14'41	
conjunction	-192 Nov 25 j 09:54	0°♄42'32	1°17'55	conjunction	-185 Feb 02 j 11:15	10°≈18'43	-1°-21'-44
minimum elong	-192 Nov 25 j 09:56	0°♄42'33	1°17'54	minimum elong	-185 Feb 02 j 11:12	10°≈18'42	1°21'45
max. Earth dist.	-192 Nov 25 j 03:24	0°♄40'38	11.11944 AU	max. Earth dist.	-185 Feb 02 j 04:34	10°≈16'40	10.63552 AU
morning rise	-192 Dec 11 j 22:24	2°♄37'54		morning rise	-185 Feb 19 j 13:34	12°≈24'06	
retrograde	-191 Mar 22 j 17:00	9°♄35'23			-185 Mar 14 j 01:54	15°≈	
opposition	-191 Jun 01 j 13:26	6°♄17'38	1°20'43	retrograde	-185 Jun 05 j 01:36	20°≈06'20	
min. Earth dist.	-191 Jun 01 j 19:31	6°♄16'31	9.10761 AU	opposition	-185 Aug 14 j 08:05	16°≈41'24	-1°-55'-31
direct	-191 Aug 11 j 10:21	2°♄59'25		min. Earth dist.	-185 Aug 14 j 13:09	16°≈40'25	8.57226 AU
evening set	-191 Nov 20 j 00:35	9°♄56'22			-185 Sep 06 j 06:23	15°≈	
				direct	-185 Oct 21 j 09:07	13°≈20'49	
conjunction	-191 Dec 06 j 13:55	11°♄52'18	0°53'49		-185 Dec 04 j 00:29	15°≈	
minimum elong	-191 Dec 06 j 13:56	11°♄52'18	0°53'49	evening set	-184 Jan 29 j 06:28	20°≈45'46	
max. Earth dist.	-191 Dec 06 j 06:07	11°♄50'00	11.08898 AU				
morning rise	-191 Dec 23 j 03:59	13°♄48'28		conjunction	-184 Feb 15 j 07:19	22°≈52'18	-1°-44'-10
retrograde	-190 Apr 03 j 14:24	20°♄50'01		minimum elong	-184 Feb 15 j 07:16	22°≈52'17	1°44'11
opposition	-190 Jun 13 j 14:25	17°♄31'30	0°49'48	max. Earth dist.	-184 Feb 15 j 02:06	22°≈50'40	10.50765 AU
min. Earth dist.	-190 Jun 13 j 21:18	17°♄30'14	9.06495 AU	morning rise	-184 Mar 03 j 12:44	25°≈00'18	
direct	-190 Aug 23 j 04:11	14°♄13'30			-184 Apr 18 j 11:54	0°✠	
evening set	-190 Dec 01 j 06:21	21°♄11'17		retrograde	-184 Jun 17 j 19:17	2°✠53'11	
					-184 Aug 19 j 12:12	30°≈	
conjunction	-190 Dec 17 j 20:45	23°♄08'11	0°27'28	opposition	-184 Aug 26 j 14:46	29°≈26'45	-2°-20'-55
minimum elong	-190 Dec 17 j 20:46	23°♄08'11	0°27'29	min. Earth dist.	-184 Aug 26 j 18:25	29°≈26'02	8.44335 AU
max. Earth dist.	-190 Dec 17 j 12:54	23°♄05'52	11.03525 AU	direct	-184 Nov 02 j 02:53	26°≈05'02	
morning rise	-189 Jan 03 j 12:41	25°♄05'33			-183 Jan 09 j 17:20	0°✠	
	-189 Feb 21 j 07:03	0°♄		evening set	-183 Feb 10 j 10:41	3°✠39'12	
retrograde	-189 Apr 15 j 17:03	2°♄12'40					
	-189 Jun 10 j 09:20	30°≈		conjunction	-183 Feb 27 j 14:52	5°✠48'27	-2°-1°-59
opposition	-189 Jun 25 j 17:58	28°♄53'11	0°16'35	minimum elong	-183 Feb 27 j 14:50	5°✠48'26	2°02'00
min. Earth dist.	-189 Jun 26 j 00:32	28°♄51'58	8.99990 AU	max. Earth dist.	-183 Feb 27 j 11:08	5°✠47'16	10.37847 AU
direct	-189 Sep 03 j 21:40	25°♄35'10		morning rise	-183 Mar 16 j 23:45	7°✠59'14	
	-189 Nov 19 j 07:20	0°♄		retrograde	-183 Jul 01 j 21:19	16°✠02'32	
evening set	-189 Dec 12 j 16:01	2°♄35'23		opposition	-183 Sep 09 j 04:10	12°✠34'45	-2°-39'-50
desc. node	-189 Dec 25 j 02:40	4°♄03'27		min. Earth dist.	-183 Sep 09 j 06:10	12°✠34'21	8.31668 AU
				direct	-183 Nov 15 j 04:07	9°✠11'45	
conjunction	-189 Dec 29 j 07:55	4°♄33'36	0°00'-19	evening set	-182 Feb 24 j 02:23	16°✠55'41	
minimum elong	-189 Dec 29 j 07:55	4°♄33'36	0°00'19				
behind sun begin	-189 Dec 29 j 00:57	4°♄31'33		conjunction	-182 Mar 13 j 10:21	19°✠07'45	-2°-13'-49
behind sun end	-189 Dec 29 j 14:52	4°♄35'38		minimum elong	-182 Mar 13 j 10:19	19°✠07'45	2°13'50
max. Earth dist.	-189 Dec 29 j 00:45	4°♄31'29	10.95997 AU	max. Earth dist.	-182 Mar 13 j 07:50	19°✠06'57	10.25534 AU
morning rise	-188 Jan 15 j 01:55	6°♄32'31		morning rise	-182 Mar 30 j 23:05	21°✠21'23	
retrograde	-188 Apr 27 j 02:06	13°♄46'42		retrograde	-182 Jul 16 j 06:11	29°✠34'03	
opposition	-188 Jul 07 j 01:34	10°♄26'02	0°-17'-53	opposition	-182 Sep 23 j 00:03	26°✠05'05	-2°-50'-36
min. Earth dist.	-188 Jul 07 j 07:27	10°♄24'56	8.91467 AU	min. Earth dist.	-182 Sep 23 j 00:41	26°✠04'58	8.19983 AU
direct	-188 Sep 14 j 17:29	7°♄07'46		direct	-182 Nov 28 j 14:29	22°✠40'43	



# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 19

Attention, astronomical year style is used: The year -181 in astronomical counting style is the year 182 BCE in historical counting style.

	-181 Mar 05 j 16:14	0°♊		minimum elong	-175 Jun 24 j 20:00	28°♊35'17	0°14'27
evening set	-181 Mar 10 j 05:21	0°♊34'18		behind sun begin	-175 Jun 24 j 16:58	28°♊34'18	
				behind sun end	-175 Jun 24 j 23:03	28°♊36'16	
conjunction	-181 Mar 27 j 17:28	2°♊49'11	-2°-18'-30	max. Earth dist.	-175 Jun 25 j 05:29	28°♊38'21	10.06166 AU
minimum elong	-181 Mar 27 j 17:28	2°♊49'11	2°18'30		-175 Jul 05 j 17:50	0°♊	
max. Earth dist.	-181 Mar 27 j 16:28	2°♊48'52	10.14591 AU	morning rise	-175 Jul 12 j 22:37	0°♊55'14	
morning rise	-181 Apr 14 j 10:14	5°♊05'33		retrograde	-175 Oct 24 j 06:07	8°♊59'32	
retrograde	-181 Jul 30 j 20:33	13°♊25'40		asc. node	-175 Dec 03 j 17:59	7°♊32'14	
opposition	-181 Oct 07 j 01:32	9°♊55'49	-2°-51'-52	opposition	-175 Dec 29 j 16:43	5°♊32'19	0°02'53
min. Earth dist.	-181 Oct 07 j 00:59	9°♊55'56	8.10019 AU	min. Earth dist.	-175 Dec 29 j 09:47	5°♊33'45	8.10272 AU
direct	-181 Dec 12 j 09:15	6°♊30'04		direct	-174 Mar 07 j 08:54	2°♊02'17	
evening set	-180 Mar 23 j 18:31	14°♊32'28		evening set	-174 Jun 21 j 13:38	10°♊14'22	
conjunction	-180 Apr 10 j 11:09	16°♊49'59	-2°-15'-12	conjunction	-174 Jul 09 j 16:08	12°♊32'57	0°19'15
minimum elong	-180 Apr 10 j 11:11	16°♊49'59	2°15'12	minimum elong	-174 Jul 09 j 16:07	12°♊32'57	0°19'15
max. Earth dist.	-180 Apr 10 j 12:18	16°♊50'21	10.05730 AU	max. Earth dist.	-174 Jul 10 j 01:02	12°♊35'48	10.15019 AU
morning rise	-180 Apr 28 j 07:55	19°♊08'48		morning rise	-174 Jul 27 j 15:23	14°♊50'28	
retrograde	-180 Aug 13 j 14:49	27°♊33'44		retrograde	-174 Nov 06 j 23:03	22°♊44'50	
opposition	-180 Oct 20 j 07:24	24°♊03'21	-2°-42'-50	opposition	-173 Jan 12 j 12:49	19°♊19'06	0°43'51
min. Earth dist.	-180 Oct 20 j 05:25	24°♊03'45	8.02427 AU	min. Earth dist.	-173 Jan 12 j 06:29	19°♊20'24	8.20189 AU
direct	-180 Dec 25 j 11:52	20°♊36'16		direct	-173 Mar 21 j 19:43	15°♊49'29	
evening set	-179 Apr 07 j 16:12	28°♊46'01		evening set	-173 Jul 06 j 03:36	23°♊55'35	
	-179 Apr 17 j 04:35	0°♋					
conjunction	-179 Apr 25 j 13:23	1°♋05'46	-2°-3'-40	conjunction	-173 Jul 24 j 02:18	26°♋11'24	0°51'07
minimum elong	-179 Apr 25 j 13:26	1°♋05'47	2°03'40	minimum elong	-173 Jul 24 j 02:16	26°♋11'24	0°51'07
max. Earth dist.	-179 Apr 25 j 16:55	1°♋06'55	9.99531 AU	max. Earth dist.	-173 Jul 24 j 09:58	26°♋13'50	10.25854 AU
morning rise	-179 May 13 j 13:47	3°♋26'32		morning rise	-173 Aug 10 j 21:03	28°♋25'56	
retrograde	-179 Aug 28 j 10:06	11°♋53'09			-173 Aug 23 j 18:18	0°♌	
opposition	-179 Nov 03 j 15:58	8°♋22'38	-2°-23'-36	retrograde	-173 Nov 20 j 06:32	6°♌10'06	
min. Earth dist.	-179 Nov 03 j 12:24	8°♋23'22	7.97694 AU	opposition	-172 Jan 26 j 02:45	2°♌45'57	1°21'20
direct	-178 Jan 08 j 21:42	4°♋54'25		min. Earth dist.	-172 Jan 25 j 20:47	2°♌47'09	8.31793 AU
evening set	-178 Apr 22 j 20:14	13°♋09'29			-172 Mar 06 j 02:14	30°♌	
	-178 May 06 j 23:36	15°♋		direct	-172 Apr 04 j 01:01	29°♋17'04	
conjunction	-178 May 10 j 21:23	15°♋30'49	-1°-44'-21		-172 May 02 j 20:54	0°♌	
minimum elong	-178 May 10 j 21:26	15°♋30'50	1°44'21	evening set	-172 Jul 19 j 07:47	7°♌15'56	
max. Earth dist.	-178 May 11 j 03:18	15°♋32'46	9.96389 AU	conjunction	-172 Aug 06 j 01:45	9°♌28'36	1°19'31
morning rise	-178 May 29 j 00:29	17°♋52'48		minimum elong	-172 Aug 06 j 01:42	9°♌28'35	1°19'31
retrograde	-178 Sep 12 j 03:50	26°♋17'49		max. Earth dist.	-172 Aug 06 j 08:12	9°♌30'37	10.38030 AU
opposition	-178 Nov 18 j 01:17	22°♋47'35	-1°-55'-10	morning rise	-172 Aug 23 j 15:12	11°♌39'49	
min. Earth dist.	-178 Nov 17 j 19:59	22°♋48'41	7.96127 AU		-172 Sep 21 j 12:35	15°♌	
direct	-177 Jan 23 j 11:44	19°♋18'28		retrograde	-172 Dec 02 j 06:26	19°♌14'02	
evening set	-177 May 08 j 03:30	27°♋36'26		opposition	-171 Feb 07 j 10:07	15°♌51'28	1°53'27
conjunction	-177 May 26 j 07:31	29°♋58'32	-1°-18'-26	min. Earth dist.	-171 Feb 07 j 04:31	15°♌52'34	8.44416 AU
minimum elong	-177 May 26 j 07:35	29°♋58'33	1°18'26		-171 Feb 18 j 08:28	15°♌	
	-177 May 26 j 12:00	0°♎		direct	-171 Apr 17 j 22:23	12°♌23'37	
max. Earth dist.	-177 May 26 j 15:32	0°♎01'09	9.96505 AU		-171 Jun 13 j 22:43	15°♌	
morning rise	-177 Jun 13 j 12:04	2°♎20'49		evening set	-171 Aug 02 j 01:07	20°♌14'24	
retrograde	-177 Sep 26 j 18:16	10°♎41'12		conjunction	-171 Aug 19 j 13:52	22°♌23'48	1°43'08
opposition	-177 Dec 02 j 09:43	7°♎11'38	-1°-19'-29	minimum elong	-171 Aug 19 j 13:49	22°♌23'47	1°43'08
min. Earth dist.	-177 Dec 02 j 03:02	7°♎13'01	7.97826 AU	max. Earth dist.	-171 Aug 19 j 19:29	22°♌25'32	10.50874 AU
direct	-176 Feb 07 j 03:38	3°♎41'54		morning rise	-171 Sep 05 j 21:41	24°♌31'39	
evening set	-176 May 22 j 10:45	12°♎00'12			-171 Oct 28 j 12:55	0°♏	
conjunction	-176 Jun 09 j 16:06	14°♎22'05	0°-47'-44	retrograde	-171 Dec 14 j 23:32	1°♏56'35	
minimum elong	-176 Jun 09 j 16:08	14°♎22'06	0°47'44		-170 Feb 01 j 21:34	30°♏	
max. Earth dist.	-176 Jun 10 j 01:22	14°♎25'07	9.99851 AU	opposition	-170 Feb 20 j 11:20	28°♏35'32	2°18'57
morning rise	-176 Jun 27 j 20:33	16°♎43'41		min. Earth dist.	-170 Feb 20 j 06:26	28°♏36'30	8.57388 AU
retrograde	-176 Oct 10 j 03:30	24°♎56'57		direct	-170 May 01 j 11:38	25°♏08'56	
opposition	-176 Dec 15 j 15:22	21°♎28'24	0°-39'-10		-170 Jul 21 j 06:24	0°♐	
min. Earth dist.	-176 Dec 15 j 08:12	21°♎29'53	8.02654 AU	evening set	-170 Aug 15 j 07:10	2°♐51'14	
direct	-175 Feb 20 j 18:47	17°♎58'21		conjunction	-170 Sep 01 j 14:38	4°♐57'25	2°01'10
evening set	-175 Jun 06 j 15:10	26°♎14'36		minimum elong	-170 Sep 01 j 14:35	4°♐57'25	2°01'10
conjunction	-175 Jun 24 j 19:59	28°♎35'17	0°-14'-27	max. Earth dist.	-170 Sep 01 j 19:25	4°♐58'53	10.63737 AU
				morning rise	-170 Sep 18 j 17:01	7°♐02'06	
				retrograde	-170 Dec 27 j 08:21	14°♐18'44	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 20

Attention, astronomical year style is used: The year -169 in astronomical counting style is the year 170 BCE in historical counting style.

opposition	-169 Mar 05 j 06:36	10° $\mathring{\text{M}}$ 59'04	2°37'11	direct	-163 Jul 25 j 17:08	16° $\mathring{\text{M}}$ 54'31	
min. Earth dist.	-169 Mar 05 j 03:17	10° $\mathring{\text{M}}$ 59'43	8.70078 AU	evening set	-163 Nov 04 j 02:59	23° $\mathring{\text{M}}$ 53'12	
direct	-169 May 14 j 17:57	7° $\mathring{\text{M}}$ 33'48					
evening set	-169 Aug 28 j 02:32	15° $\mathring{\text{M}}$ 07'38		conjunction	-163 Nov 20 j 15:44	25° $\mathring{\text{M}}$ 48'29	1°28'01
				minimum elong	-163 Nov 20 j 15:46	25° $\mathring{\text{M}}$ 48'30	1°28'01
conjunction	-169 Sep 14 j 05:00	17° $\mathring{\text{M}}$ 10'52	2°13'12	max. Earth dist.	-163 Nov 20 j 08:07	25° $\mathring{\text{M}}$ 46'15	11.13082 AU
minimum elong	-169 Sep 14 j 04:58	17° $\mathring{\text{M}}$ 10'52	2°13'12	morning rise	-163 Dec 07 j 03:52	27° $\mathring{\text{M}}$ 43'37	
max. Earth dist.	-169 Sep 14 j 08:00	17° $\mathring{\text{M}}$ 11'46	10.76024 AU		-163 Dec 27 j 20:11	0° $\mathring{\text{Z}}$	
morning rise	-169 Oct 01 j 02:39	19° $\mathring{\text{M}}$ 12'42		retrograde	-162 Mar 17 j 15:50	4° $\mathring{\text{Z}}$ 39'56	
retrograde	-168 Jan 08 j 11:32	26° $\mathring{\text{M}}$ 22'08		opposition	-162 May 27 j 09:47	1° $\mathring{\text{Z}}$ 22'45	1°33'55
opposition	-168 Mar 16 j 20:14	23° $\mathring{\text{M}}$ 03'40	2°47'53	min. Earth dist.	-162 May 27 j 16:19	1° $\mathring{\text{Z}}$ 21'33	9.12308 AU
min. Earth dist.	-168 Mar 16 j 18:57	23° $\mathring{\text{M}}$ 03'55	8.81916 AU		-162 Jun 15 j 20:07	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
direct	-168 May 26 j 16:35	19° $\mathring{\text{M}}$ 39'46		direct	-162 Aug 06 j 11:02	28° $\mathring{\text{M}}$ 04'37	
evening set	-168 Sep 08 j 11:56	27° $\mathring{\text{M}}$ 05'29			-162 Sep 25 j 02:05	0° $\mathring{\text{Z}}$	
				evening set	-162 Nov 15 j 06:38	5° $\mathring{\text{Z}}$ 01'56	
conjunction	-168 Sep 25 j 09:58	29° $\mathring{\text{M}}$ 06'09	2°19'08				
minimum elong	-168 Sep 25 j 09:57	29° $\mathring{\text{M}}$ 06'09	2°19'08	conjunction	-162 Dec 01 j 19:50	6° $\mathring{\text{Z}}$ 57'36	1°05'15
max. Earth dist.	-168 Sep 25 j 10:23	29° $\mathring{\text{M}}$ 06'17	10.87207 AU	minimum elong	-162 Dec 01 j 19:53	6° $\mathring{\text{Z}}$ 57'37	1°05'15
	-168 Oct 02 j 22:09	0° $\mathring{\text{Z}}$		max. Earth dist.	-162 Dec 01 j 12:06	6° $\mathring{\text{Z}}$ 55'20	11.10773 AU
morning rise	-168 Oct 12 j 03:48	1° $\mathring{\text{Z}}$ 05'35		morning rise	-162 Dec 18 j 09:04	8° $\mathring{\text{Z}}$ 53'22	
retrograde	-167 Jan 19 j 08:06	8° $\mathring{\text{Z}}$ 09'06		retrograde	-161 Mar 29 j 13:18	15° $\mathring{\text{Z}}$ 53'04	
opposition	-167 Mar 29 j 05:12	4° $\mathring{\text{Z}}$ 51'34	2°51'11	opposition	-161 Jun 08 j 10:06	12° $\mathring{\text{Z}}$ 35'06	1°04'24
min. Earth dist.	-167 Mar 29 j 05:19	4° $\mathring{\text{Z}}$ 51'32	8.92397 AU	min. Earth dist.	-161 Jun 08 j 16:55	12° $\mathring{\text{Z}}$ 33'51	9.08705 AU
direct	-167 Jun 08 j 08:08	1° $\mathring{\text{Z}}$ 29'00		direct	-161 Aug 18 j 04:28	9° $\mathring{\text{Z}}$ 17'08	
evening set	-167 Sep 20 j 12:16	8° $\mathring{\text{Z}}$ 47'10		evening set	-161 Nov 26 j 11:40	16° $\mathring{\text{Z}}$ 14'37	
conjunction	-167 Oct 07 j 06:45	10° $\mathring{\text{Z}}$ 45'44	2°19'09	conjunction	-161 Dec 13 j 01:37	18° $\mathring{\text{Z}}$ 11'06	0°39'51
minimum elong	-167 Oct 07 j 06:45	10° $\mathring{\text{Z}}$ 45'44	2°19'09	minimum elong	-161 Dec 13 j 01:39	18° $\mathring{\text{Z}}$ 11'06	0°39'50
max. Earth dist.	-167 Oct 07 j 05:30	10° $\mathring{\text{Z}}$ 45'22	10.96829 AU	max. Earth dist.	-161 Dec 12 j 17:04	18° $\mathring{\text{Z}}$ 08'35	11.06001 AU
morning rise	-167 Oct 23 j 21:37	12° $\mathring{\text{Z}}$ 43'15		morning rise	-161 Dec 29 j 16:31	20° $\mathring{\text{Z}}$ 07'55	
retrograde	-166 Jan 31 j 02:11	19° $\mathring{\text{Z}}$ 42'17		retrograde	-160 Apr 09 j 13:11	27° $\mathring{\text{Z}}$ 12'31	
opposition	-166 Apr 10 j 10:11	16° $\mathring{\text{Z}}$ 25'22	2°47'28	opposition	-160 Jun 19 j 12:46	23° $\mathring{\text{Z}}$ 53'31	0°32'07
min. Earth dist.	-166 Apr 10 j 11:00	16° $\mathring{\text{Z}}$ 25'13	9.01098 AU	min. Earth dist.	-160 Jun 19 j 20:20	23° $\mathring{\text{Z}}$ 52'07	9.02736 AU
direct	-166 Jun 20 j 19:03	13° $\mathring{\text{Z}}$ 04'05		direct	-160 Aug 28 j 20:25	20° $\mathring{\text{Z}}$ 35'28	
evening set	-166 Oct 02 j 05:04	20° $\mathring{\text{Z}}$ 15'31		evening set	-160 Dec 06 j 19:43	27° $\mathring{\text{Z}}$ 34'42	
conjunction	-166 Oct 18 j 21:01	22° $\mathring{\text{Z}}$ 12'31	2°13'33	conjunction	-160 Dec 23 j 10:47	29° $\mathring{\text{Z}}$ 32'20	0°12'38
minimum elong	-166 Oct 18 j 21:02	22° $\mathring{\text{Z}}$ 12'31	2°13'33	minimum elong	-160 Dec 23 j 10:47	29° $\mathring{\text{Z}}$ 32'20	0°12'38
max. Earth dist.	-166 Oct 18 j 19:01	22° $\mathring{\text{Z}}$ 11'55	11.04507 AU	behind sun begin	-160 Dec 23 j 06:15	29° $\mathring{\text{Z}}$ 31'00	
morning rise	-166 Nov 04 j 09:46	24° $\mathring{\text{Z}}$ 08'37		behind sun end	-160 Dec 23 j 15:20	29° $\mathring{\text{Z}}$ 33'40	
	-165 Jan 06 j 13:52	0° $\mathring{\text{M}}$		max. Earth dist.	-160 Dec 23 j 01:11	29° $\mathring{\text{Z}}$ 29'30	10.98969 AU
retrograde	-165 Feb 11 j 19:04	1° $\mathring{\text{M}}$ 04'34			-160 Dec 27 j 07:59	0° $\mathring{\text{Z}}$	
	-165 Mar 20 j 20:08	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$		morning rise	-159 Jan 09 j 03:52	1° $\mathring{\text{Z}}$ 30'36	
opposition	-165 Apr 22 j 11:59	27° $\mathring{\text{Z}}$ 48'02	2°37'14	retrograde	-159 Apr 21 j 18:10	8° $\mathring{\text{Z}}$ 41'39	
min. Earth dist.	-165 Apr 22 j 14:16	27° $\mathring{\text{Z}}$ 47'36	9.07672 AU	desc. node	-159 Jun 10 j 15:25	6° $\mathring{\text{Z}}$ 52'09	
direct	-165 Jul 02 j 22:09	24° $\mathring{\text{Z}}$ 27'50		opposition	-159 Jul 01 j 18:55	5° $\mathring{\text{Z}}$ 21'22	0°-1'-55
	-165 Sep 29 j 17:15	0° $\mathring{\text{M}}$		min. Earth dist.	-159 Jul 02 j 02:59	5° $\mathring{\text{Z}}$ 19'52	8.94643 AU
evening set	-165 Oct 13 j 15:58	1° $\mathring{\text{M}}$ 33'38		direct	-159 Sep 09 j 16:11	2° $\mathring{\text{Z}}$ 02'57	
				evening set	-159 Dec 18 j 08:18	9° $\mathring{\text{Z}}$ 05'32	
conjunction	-165 Oct 30 j 06:06	3° $\mathring{\text{M}}$ 29'33	2°02'48				
minimum elong	-165 Oct 30 j 06:08	3° $\mathring{\text{M}}$ 29'34	2°02'48	conjunction	-158 Jan 04 j 01:01	11° $\mathring{\text{Z}}$ 04'42	0°-15'-34
max. Earth dist.	-165 Oct 30 j 02:17	3° $\mathring{\text{M}}$ 28'26	11.09917 AU	minimum elong	-158 Jan 04 j 01:00	11° $\mathring{\text{Z}}$ 04'42	0°15'35
morning rise	-165 Nov 15 j 17:47	5° $\mathring{\text{M}}$ 24'50		behind sun begin	-158 Jan 03 j 22:58	11° $\mathring{\text{Z}}$ 04'06	
retrograde	-164 Feb 23 j 08:40	12° $\mathring{\text{M}}$ 19'13		behind sun end	-158 Jan 04 j 03:03	11° $\mathring{\text{Z}}$ 05'18	
opposition	-164 May 03 j 11:49	9° $\mathring{\text{M}}$ 02'46	2°21'06	max. Earth dist.	-158 Jan 03 j 16:00	11° $\mathring{\text{Z}}$ 02'01	10.89937 AU
min. Earth dist.	-164 May 03 j 16:16	9° $\mathring{\text{M}}$ 01'57	9.11826 AU	morning rise	-158 Jan 20 j 20:29	13° $\mathring{\text{Z}}$ 04'44	
direct	-164 Jul 13 j 20:23	5° $\mathring{\text{M}}$ 43'28		retrograde	-158 May 04 j 07:19	20° $\mathring{\text{Z}}$ 23'41	
evening set	-164 Oct 23 j 22:42	12° $\mathring{\text{M}}$ 44'59		opposition	-158 Jul 14 j 05:14	17° $\mathring{\text{Z}}$ 01'56	0°-36'-35
				min. Earth dist.	-158 Jul 14 j 12:35	17° $\mathring{\text{Z}}$ 00'33	8.84721 AU
conjunction	-164 Nov 09 j 11:41	14° $\mathring{\text{M}}$ 40'19	1°47'26	direct	-158 Sep 21 j 15:06	13° $\mathring{\text{Z}}$ 42'56	
minimum elong	-164 Nov 09 j 11:43	14° $\mathring{\text{M}}$ 40'20	1°47'25	evening set	-158 Dec 30 j 03:30	20° $\mathring{\text{Z}}$ 50'27	
max. Earth dist.	-164 Nov 09 j 05:21	14° $\mathring{\text{M}}$ 38'28	11.12808 AU				
	-164 Nov 12 j 06:57	15° $\mathring{\text{M}}$		conjunction	-157 Jan 15 j 22:14	22° $\mathring{\text{Z}}$ 51'30	0°-43'-33
morning rise	-164 Nov 25 j 23:16	16° $\mathring{\text{M}}$ 35'16		minimum elong	-157 Jan 15 j 22:12	22° $\mathring{\text{Z}}$ 51'29	0°43'35
retrograde	-163 Mar 05 j 23:24	23° $\mathring{\text{M}}$ 29'47		max. Earth dist.	-157 Jan 15 j 14:25	22° $\mathring{\text{Z}}$ 49'08	10.79226 AU
opposition	-163 May 15 j 10:44	20° $\mathring{\text{M}}$ 13'08	1°59'45	morning rise	-157 Feb 01 j 20:13	24° $\mathring{\text{Z}}$ 53'36	
min. Earth dist.	-163 May 15 j 16:54	20° $\mathring{\text{M}}$ 12'00	9.13376 AU		-157 Mar 23 j 05:23	0° $\mathring{\approx}$	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 21

Attention, astronomical year style is used: The year -157 in astronomical counting style is the year 158 BCE in historical counting style.

retrograde	-157 May 17 j 03:18	2°≈21'39		min. Earth dist.	-151 Oct 14 j 02:39	17°Υ53'24	8.04543 AU
	-157 Jul 13 j 02:41	30°℞		direct	-151 Dec 19 j 10:24	14°Υ26'08	
opposition	-157 Jul 26 j 20:32	28°℞58'21	-1°-10'-31	evening set	-150 Apr 01 j 06:38	22°Υ33'17	
min. Earth dist.	-157 Jul 27 j 02:38	28°℞57'12	8.73335 AU				
direct	-157 Oct 03 j 17:15	25°℞38'35		conjunction	-150 Apr 19 j 01:53	24°Υ52'13	-2°-9'-53
	-157 Dec 16 j 23:05	0°≈		minimum elong	-150 Apr 19 j 01:56	24°Υ52'14	2°09'54
evening set	-156 Jan 11 j 06:47	2°≈52'35		max. Earth dist.	-150 Apr 19 j 06:23	24°Υ53'42	10.01167 AU
				morning rise	-150 May 07 j 00:36	27°Υ12'19	
conjunction	-156 Jan 28 j 03:43	4°≈55'46	-1°-10'-16		-150 May 29 j 17:06	0°℞	
minimum elong	-156 Jan 28 j 03:41	4°≈55'45	1°10'17	retrograde	-150 Aug 22 j 04:06	5°℞39'10	
max. Earth dist.	-156 Jan 27 j 20:37	4°≈53'36	10.67253 AU	opposition	-150 Oct 28 j 13:38	2°℞08'32	-2°-33'-31
morning rise	-156 Feb 14 j 04:32	7°≈00'12		min. Earth dist.	-150 Oct 28 j 09:11	2°℞09'28	7.98842 AU
retrograde	-156 May 29 j 08:26	14°≈38'22			-150 Nov 25 j 12:16	30°℞Υ	
opposition	-156 Aug 07 j 18:02	11°≈13'29	-1°-42'-15	direct	-149 Jan 02 j 17:09	28°Υ40'51	
min. Earth dist.	-156 Aug 07 j 23:01	11°≈12'31	8.60942 AU		-149 Feb 09 j 11:59	0°℞	
direct	-156 Oct 15 j 01:12	7°≈52'46		evening set	-149 Apr 16 j 08:33	6°℞54'15	
	-155 Jan 20 j 19:24	15°≈					
evening set	-155 Jan 22 j 19:26	15°≈14'32		conjunction	-149 May 04 j 07:55	9°℞15'03	-1°-53'-56
				minimum elong	-149 May 04 j 07:59	9°℞15'04	1°53'57
conjunction	-155 Feb 08 j 18:53	17°≈20'08	-1°-34'-23	max. Earth dist.	-149 May 04 j 14:16	9°℞17'08	9.96993 AU
minimum elong	-155 Feb 08 j 18:50	17°≈20'07	1°34'24	morning rise	-149 May 22 j 09:53	11°℞36'41	
max. Earth dist.	-155 Feb 08 j 12:17	17°≈18'05	10.54523 AU		-149 Jun 19 j 04:03	15°℞	
morning rise	-155 Feb 25 j 22:56	19°≈27'10		retrograde	-149 Sep 05 j 23:36	20°℞03'21	
retrograde	-155 Jun 11 j 22:38	27°≈15'58		opposition	-149 Nov 11 j 23:29	16°℞33'03	-2°-8'-58
opposition	-155 Aug 20 j 22:06	23°≈49'33	-2°-10'-4	min. Earth dist.	-149 Nov 11 j 17:59	16°℞34'11	7.96220 AU
min. Earth dist.	-155 Aug 21 j 02:23	23°≈48'43	8.48080 AU		-149 Dec 01 j 08:00	15°℞℞	
direct	-155 Oct 27 j 15:02	20°≈27'44		direct	-148 Jan 17 j 05:47	13°℞04'31	
evening set	-154 Feb 04 j 18:47	27°≈58'24			-148 Mar 03 j 08:35	15°℞	
				evening set	-148 Apr 30 j 15:16	21°℞21'52	
conjunction	-154 Feb 21 j 21:19	0°℞06'36	-1°-54'-31				
minimum elong	-154 Feb 21 j 21:16	0°℞06'35	1°54'32	conjunction	-148 May 18 j 18:00	23°℞43'46	-1°-30'-46
	-154 Feb 21 j 00:19	0°℞		minimum elong	-148 May 18 j 18:04	23°℞43'47	1°30'46
max. Earth dist.	-154 Feb 21 j 16:02	0°℞04'57	10.41604 AU	max. Earth dist.	-148 May 19 j 01:44	23°℞46'19	9.96049 AU
morning rise	-154 Mar 11 j 04:49	2°℞16'23		morning rise	-148 Jun 05 j 22:09	26°℞06'06	
retrograde	-154 Jun 25 j 19:23	10°℞15'45			-148 Jul 08 j 06:34	0°Π	
opposition	-154 Sep 03 j 08:41	6°℞47'57	-2°-32'-13	retrograde	-148 Sep 19 j 16:17	4°Π29'20	
min. Earth dist.	-154 Sep 03 j 11:53	6°℞47'19	8.35349 AU	opposition	-148 Nov 25 j 09:07	0°Π59'43	-1°-36'-11
direct	-154 Nov 09 j 14:04	3°℞24'54		min. Earth dist.	-148 Nov 25 j 02:52	1°Π01'01	7.96878 AU
evening set	-153 Feb 18 j 05:22	11°℞05'09			-148 Dec 07 j 12:20	30°℞℞	
				direct	-147 Jan 30 j 21:50	27°℞30'35	
conjunction	-153 Mar 07 j 11:33	13°℞16'09	-2°-9'-16		-147 Mar 25 j 00:45	0°Π	
minimum elong	-153 Mar 07 j 11:31	13°℞16'08	2°09'17	evening set	-147 May 15 j 23:38	5°Π49'18	
max. Earth dist.	-153 Mar 07 j 08:36	13°℞15'12	10.29133 AU				
morning rise	-153 Mar 24 j 22:38	15°℞28'43		conjunction	-147 Jun 03 j 04:26	8°Π11'24	-1°-1'-55
retrograde	-153 Jul 10 j 00:15	23°℞38'00		minimum elong	-147 Jun 03 j 04:29	8°Π11'25	1°01'55
opposition	-153 Sep 17 j 01:58	20°℞08'59	-2°-46'-55	max. Earth dist.	-147 Jun 03 j 13:14	8°Π14'17	9.98388 AU
min. Earth dist.	-153 Sep 17 j 03:21	20°℞08'42	8.23401 AU	morning rise	-147 Jun 21 j 09:17	10°Π33'27	
direct	-153 Nov 22 j 21:47	16°℞44'42		retrograde	-147 Oct 04 j 04:06	18°Π50'21	
evening set	-152 Mar 03 j 03:12	24°℞34'37		opposition	-147 Dec 09 j 16:44	15°Π21'46	0°-57'-33
				min. Earth dist.	-147 Dec 09 j 09:38	15°Π23'14	8.00748 AU
conjunction	-152 Mar 20 j 13:30	26°℞48'26	-2°-17'-21	direct	-146 Feb 14 j 15:01	11°Π52'17	
minimum elong	-152 Mar 20 j 13:29	26°℞48'25	2°17'21	evening set	-146 May 31 j 06:14	20°Π09'48	
max. Earth dist.	-152 Mar 20 j 13:27	26°℞48'25	10.17790 AU				
morning rise	-152 Apr 07 j 04:24	29°℞03'46		conjunction	-146 Jun 18 j 11:21	22°Π31'03	0°-29'-28
	-152 Apr 14 j 16:38	0°Υ		minimum elong	-146 Jun 18 j 11:23	22°Π31'04	0°29'28
retrograde	-152 Jul 23 j 12:55	7°Υ21'28		max. Earth dist.	-146 Jun 18 j 20:52	22°Π34'09	10.03806 AU
opposition	-152 Sep 30 j 01:20	3°Υ51'30	-2°-52'-37	morning rise	-146 Jul 06 j 15:06	24°Π51'49	
min. Earth dist.	-152 Sep 30 j 00:19	3°Υ51'43	8.12916 AU		-146 Aug 20 j 15:56	0°℞	
direct	-152 Dec 05 j 12:31	0°Υ26'01		retrograde	-146 Oct 18 j 09:24	3°℞00'17	
evening set	-151 Mar 17 j 12:06	8°Υ25'06			-146 Dec 18 j 08:39	30°℞Π	
				opposition	-146 Dec 23 j 20:30	29°Π32'56	0°-15'-53
conjunction	-151 Apr 04 j 02:51	10°Υ41'38	-2°-17'-44	min. Earth dist.	-146 Dec 23 j 12:51	29°Π34'30	8.07514 AU
minimum elong	-151 Apr 04 j 02:52	10°Υ41'38	2°17'44	direct	-145 Mar 01 j 07:07	26°Π03'24	
max. Earth dist.	-151 Apr 04 j 05:15	10°Υ42'25	10.08262 AU		-145 May 09 j 12:42	0°℞	
morning rise	-151 Apr 21 j 21:44	12°Υ59'33		asc. node	-145 May 15 j 20:56	0°℞40'19	
retrograde	-151 Aug 07 j 07:16	21°Υ23'18		evening set	-145 Jun 15 j 07:55	4°℞17'22	
opposition	-151 Oct 14 j 05:38	17°Υ52'48	-2°-48'-16				

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 22

Attention, astronomical year style is used: The year -145 in astronomical counting style is the year 146 BCE in historical counting style.

conjunction	-145 Jul 03 j 11:37	6° $\mathfrak{E}$ 36'53	0°04'23	conjunction	-139 Sep 20 j 12:42	24° $\mathfrak{M}$ 10'24	2°17'16
minimum elong	-145 Jul 03 j 11:37	6° $\mathfrak{E}$ 36'53	0°04'24	minimum elong	-139 Sep 20 j 12:41	24° $\mathfrak{M}$ 10'23	2°17'15
behind sun begin	-145 Jul 03 j 04:24	6° $\mathfrak{E}$ 34'35		max. Earth dist.	-139 Sep 20 j 13:35	24° $\mathfrak{M}$ 10'39	10.81375 AU
behind sun end	-145 Jul 03 j 18:49	6° $\mathfrak{E}$ 39'11		morning rise	-139 Oct 07 j 08:11	26° $\mathfrak{M}$ 10'58	
max. Earth dist.	-145 Jul 03 j 21:07	6° $\mathfrak{E}$ 39'55	10.11856 AU		-139 Nov 11 j 15:03	0° $\mathfrak{L}$	
morning rise	-145 Jul 21 j 12:35	8° $\mathfrak{E}$ 55'29		retrograde	-138 Jan 14 j 14:52	3° $\mathfrak{L}$ 17'31	
retrograde	-145 Nov 01 j 06:40	16° $\mathfrak{E}$ 54'13		opposition	-138 Mar 24 j 05:32	29° $\mathfrak{M}$ 59'21	2°50'40
opposition	-144 Jan 06 j 19:08	13° $\mathfrak{E}$ 28'17	0°25'53	min. Earth dist.	-138 Mar 24 j 05:09	29° $\mathfrak{M}$ 59'25	8.86687 AU
min. Earth dist.	-144 Jan 06 j 11:38	13° $\mathfrak{E}$ 29'48	8.16629 AU		-138 Mar 24 j 02:05	30° $\mathfrak{R}$ $\mathfrak{M}$	
direct	-144 Mar 14 j 19:40	9° $\mathfrak{E}$ 58'59		direct	-138 Jun 03 j 05:36	26° $\mathfrak{M}$ 35'56	
evening set	-144 Jun 29 j 02:09	18° $\mathfrak{E}$ 07'39			-138 Aug 09 j 14:04	0° $\mathfrak{L}$	
				evening set	-138 Sep 15 j 17:03	3° $\mathfrak{L}$ 57'54	
conjunction	-144 Jul 17 j 02:50	20° $\mathfrak{E}$ 24'41	0°37'15	conjunction	-138 Oct 02 j 13:16	5° $\mathfrak{L}$ 57'32	2°19'52
minimum elong	-144 Jul 17 j 02:48	20° $\mathfrak{E}$ 24'40	0°37'15	minimum elong	-138 Oct 02 j 13:16	5° $\mathfrak{L}$ 57'32	2°19'51
max. Earth dist.	-144 Jul 17 j 11:33	20° $\mathfrak{E}$ 27'28	10.21897 AU	max. Earth dist.	-138 Oct 02 j 12:42	5° $\mathfrak{L}$ 57'22	10.91321 AU
morning rise	-144 Aug 03 j 23:39	22° $\mathfrak{E}$ 40'31		morning rise	-138 Oct 19 j 05:19	7° $\mathfrak{L}$ 56'01	
	-144 Oct 21 j 21:32	0° $\mathfrak{L}$		retrograde	-137 Jan 26 j 10:20	14° $\mathfrak{L}$ 57'27	
retrograde	-144 Nov 13 j 19:38	0° $\mathfrak{L}$ 29'07		opposition	-137 Apr 05 j 12:33	11° $\mathfrak{L}$ 39'55	2°50'00
	-144 Dec 06 j 21:09	30° $\mathfrak{R}$ $\mathfrak{E}$		min. Earth dist.	-137 Apr 05 j 14:06	11° $\mathfrak{L}$ 39'38	8.95841 AU
opposition	-143 Jan 19 j 12:00	27° $\mathfrak{E}$ 04'44	1°05'11	direct	-137 Jun 15 j 18:45	8° $\mathfrak{L}$ 17'37	
min. Earth dist.	-143 Jan 19 j 05:33	27° $\mathfrak{E}$ 06'02	8.27423 AU	evening set	-137 Sep 27 j 13:25	15° $\mathfrak{L}$ 32'33	
direct	-143 Mar 29 j 02:33	23° $\mathfrak{E}$ 36'00					
	-143 Jun 29 j 22:20	0° $\mathfrak{L}$		conjunction	-137 Oct 14 j 06:28	17° $\mathfrak{L}$ 30'23	2°16'40
evening set	-143 Jul 13 j 11:20	1° $\mathfrak{L}$ 38'07		minimum elong	-137 Oct 14 j 06:29	17° $\mathfrak{L}$ 30'24	2°16'40
conjunction	-143 Jul 31 j 07:39	3° $\mathfrak{L}$ 52'11	1°07'23	max. Earth dist.	-137 Oct 14 j 03:39	17° $\mathfrak{L}$ 29'33	10.99562 AU
minimum elong	-143 Jul 31 j 07:36	3° $\mathfrak{L}$ 52'10	1°07'23	morning rise	-137 Oct 30 j 20:13	19° $\mathfrak{L}$ 27'16	
max. Earth dist.	-143 Jul 31 j 14:57	3° $\mathfrak{L}$ 54'29	10.33289 AU	retrograde	-136 Feb 07 j 02:22	26° $\mathfrak{L}$ 24'59	
morning rise	-143 Aug 17 j 23:21	6° $\mathfrak{L}$ 04'51		opposition	-136 Apr 16 j 15:49	23° $\mathfrak{L}$ 07'50	2°42'34
retrograde	-143 Nov 27 j 00:37	13° $\mathfrak{L}$ 43'32		min. Earth dist.	-136 Apr 16 j 18:53	23° $\mathfrak{L}$ 07'16	9.03116 AU
opposition	-142 Feb 01 j 22:46	10° $\mathfrak{L}$ 20'42	1°39'53	direct	-136 Jun 27 j 01:11	19° $\mathfrak{L}$ 46'36	
min. Earth dist.	-142 Feb 01 j 17:55	10° $\mathfrak{L}$ 21'40	8.39320 AU	evening set	-136 Oct 08 j 03:02	26° $\mathfrak{L}$ 55'29	
direct	-142 Apr 12 j 02:50	6° $\mathfrak{L}$ 52'46					
evening set	-142 Jul 27 j 10:09	14° $\mathfrak{L}$ 47'23		conjunction	-136 Oct 24 j 17:53	28° $\mathfrak{L}$ 52'01	2°08'07
	-142 Jul 29 j 03:27	15° $\mathfrak{L}$		minimum elong	-136 Oct 24 j 17:54	28° $\mathfrak{L}$ 52'02	2°08'07
				max. Earth dist.	-136 Oct 24 j 13:35	28° $\mathfrak{L}$ 50'45	11.05807 AU
conjunction	-142 Aug 14 j 01:16	16° $\mathfrak{L}$ 58'15	1°33'16		-136 Nov 03 j 09:24	0° $\mathfrak{M}$	
minimum elong	-142 Aug 14 j 01:13	16° $\mathfrak{L}$ 58'14	1°33'16	morning rise	-136 Nov 10 j 06:11	0° $\mathfrak{M}$ 47'50	
max. Earth dist.	-142 Aug 14 j 06:29	16° $\mathfrak{L}$ 59'52	10.45498 AU	retrograde	-135 Feb 17 j 16:26	7° $\mathfrak{M}$ 43'21	
morning rise	-142 Aug 31 j 11:32	19° $\mathfrak{L}$ 07'37		opposition	-135 Apr 28 j 16:40	4° $\mathfrak{M}$ 26'20	2°28'54
retrograde	-142 Dec 09 j 20:43	26° $\mathfrak{L}$ 36'51		min. Earth dist.	-135 Apr 28 j 20:09	4° $\mathfrak{M}$ 25'41	9.08257 AU
opposition	-141 Feb 15 j 03:18	23° $\mathfrak{L}$ 15'28	2°08'29	direct	-135 Jul 09 j 03:10	1° $\mathfrak{M}$ 06'05	
min. Earth dist.	-141 Feb 14 j 23:50	23° $\mathfrak{L}$ 16'09	8.51774 AU	evening set	-135 Oct 19 j 11:25	8° $\mathfrak{M}$ 10'02	
direct	-141 Apr 25 j 20:45	19° $\mathfrak{L}$ 48'32					
evening set	-141 Aug 09 j 21:46	27° $\mathfrak{L}$ 35'00		conjunction	-135 Nov 05 j 01:01	10° $\mathfrak{M}$ 05'46	1°54'40
				minimum elong	-135 Nov 05 j 01:04	10° $\mathfrak{M}$ 05'47	1°54'40
conjunction	-141 Aug 27 j 07:30	29° $\mathfrak{L}$ 42'39	1°53'53	max. Earth dist.	-135 Nov 04 j 20:29	10° $\mathfrak{M}$ 04'27	11.09835 AU
minimum elong	-141 Aug 27 j 07:27	29° $\mathfrak{L}$ 42'38	1°53'53	morning rise	-135 Nov 21 j 12:38	12° $\mathfrak{M}$ 01'00	
max. Earth dist.	-141 Aug 27 j 10:38	29° $\mathfrak{L}$ 43'36	10.57963 AU		-135 Dec 19 j 03:47	15° $\mathfrak{M}$	
	-141 Aug 29 j 15:55	0° $\mathfrak{M}$		retrograde	-134 Mar 01 j 09:00	18° $\mathfrak{M}$ 55'54	
morning rise	-141 Sep 13 j 12:26	1° $\mathfrak{M}$ 48'48		opposition	-134 May 10 j 16:04	15° $\mathfrak{M}$ 38'48	2°09'42
retrograde	-141 Dec 22 j 07:49	9° $\mathfrak{M}$ 09'23		min. Earth dist.	-134 May 10 j 20:05	15° $\mathfrak{M}$ 38'04	9.11089 AU
opposition	-140 Feb 28 j 01:37	5° $\mathfrak{M}$ 49'18	2°30'01		-134 May 19 j 12:30	15° $\mathfrak{R}$ $\mathfrak{M}$	
min. Earth dist.	-140 Feb 27 j 23:06	5° $\mathfrak{M}$ 49'47	8.64191 AU	direct	-134 Jul 21 j 01:02	12° $\mathfrak{M}$ 19'23	
direct	-140 May 08 j 08:40	2° $\mathfrak{M}$ 23'28			-134 Sep 18 j 08:52	15° $\mathfrak{M}$	
evening set	-140 Aug 21 j 22:28	10° $\mathfrak{M}$ 01'33		evening set	-134 Oct 30 j 16:42	19° $\mathfrak{M}$ 19'42	
conjunction	-140 Sep 08 j 03:06	12° $\mathfrak{M}$ 06'10	2°08'37	conjunction	-134 Nov 16 j 05:43	21° $\mathfrak{M}$ 15'09	1°36'56
minimum elong	-140 Sep 08 j 03:04	12° $\mathfrak{M}$ 06'09	2°08'37	minimum elong	-134 Nov 16 j 05:46	21° $\mathfrak{M}$ 15'10	1°36'55
max. Earth dist.	-140 Sep 08 j 04:40	12° $\mathfrak{M}$ 06'38	10.70101 AU	max. Earth dist.	-134 Nov 16 j 00:20	21° $\mathfrak{M}$ 13'34	11.11508 AU
morning rise	-140 Sep 25 j 02:59	14° $\mathfrak{M}$ 09'20		morning rise	-134 Dec 02 j 17:31	23° $\mathfrak{M}$ 10'19	
retrograde	-139 Jan 02 j 14:14	21° $\mathfrak{M}$ 22'19			-133 Mar 01 j 20:43	0° $\mathfrak{J}$	
opposition	-139 Mar 11 j 18:03	18° $\mathfrak{M}$ 03'17	2°44'06	retrograde	-133 Mar 12 j 23:59	0° $\mathfrak{J}$ 06'05	
min. Earth dist.	-139 Mar 11 j 16:15	18° $\mathfrak{M}$ 03'38	8.75995 AU		-133 Mar 24 j 04:57	30° $\mathfrak{R}$ $\mathfrak{M}$	
direct	-139 May 21 j 11:29	14° $\mathfrak{M}$ 38'40		opposition	-133 May 22 j 14:55	26° $\mathfrak{M}$ 48'41	1°45'41
evening set	-139 Sep 03 j 12:36	22° $\mathfrak{M}$ 08'29		min. Earth dist.	-133 May 22 j 20:20	26° $\mathfrak{M}$ 47'42	9.11521 AU
				direct	-133 Aug 01 j 17:58	23° $\mathfrak{M}$ 29'55	

Attention, astronomical year style is used: The year -133 in astronomical counting style is the year 134 BCE in historical counting style.

	-133 Nov 06 j 18:00	0°♂		direct	-127 Oct 10 j 01:36	2°♂47'35	
evening set	-133 Nov 10 j 20:36	0°♂28'05		evening set	-126 Jan 17 j 16:59	10°♂04'58	
conjunction	-133 Nov 27 j 09:32	2°♂23'39	1°15'31	conjunction	-126 Feb 03 j 15:12	12°♂09'11	-1°-24'-12
minimum elong	-133 Nov 27 j 09:34	2°♂23'40	1°15'31	minimum elong	-126 Feb 03 j 15:10	12°♂09'11	1°24'13
max. Earth dist.	-133 Nov 27 j 02:22	2°♂21'33	11.10770 AU	max. Earth dist.	-126 Feb 03 j 09:59	12°♂07'35	10.62513 AU
morning rise	-133 Dec 13 j 22:21	4°♂19'13		morning rise	-126 Feb 20 j 17:37	14°♂14'46	
retrograde	-132 Mar 23 j 18:08	11°♂17'29			-126 Feb 27 j 01:09	15°♂	
opposition	-132 Jun 02 j 14:39	7°♂59'33	1°17'38	retrograde	-126 Jun 06 j 07:50	21°♂57'47	
min. Earth dist.	-132 Jun 02 j 21:04	7°♂58'22	9.09537 AU	opposition	-126 Aug 15 j 12:52	18°♂32'42	-1°-58'-20
direct	-132 Aug 12 j 11:51	4°♂41'12		min. Earth dist.	-126 Aug 15 j 16:41	18°♂31'58	8.56311 AU
evening set	-132 Nov 21 j 00:42	11°♂38'42		direct	-126 Oct 22 j 12:55	15°♂12'03	
				evening set	-125 Jan 30 j 11:06	22°♂37'34	
conjunction	-132 Dec 07 j 14:13	13°♂34'50	0°51'09	conjunction	-125 Feb 16 j 12:09	24°♂44'15	-1°-46'-11
minimum elong	-132 Dec 07 j 14:14	13°♂34'51	0°51'09	minimum elong	-125 Feb 16 j 12:06	24°♂44'14	1°46'12
max. Earth dist.	-132 Dec 07 j 06:44	13°♂32'38	11.07636 AU	max. Earth dist.	-125 Feb 16 j 07:54	24°♂42'56	10.49974 AU
morning rise	-132 Dec 24 j 04:28	15°♂31'13		morning rise	-125 Mar 05 j 17:41	26°♂52'24	
retrograde	-131 Apr 04 j 16:09	22°♂33'35			-125 Apr 01 j 17:58	0°♂	
opposition	-131 Jun 14 j 16:10	19°♂14'52	0°46'25	retrograde	-125 Jun 20 j 01:33	4°♂45'51	
min. Earth dist.	-131 Jun 14 j 22:27	19°♂13'42	9.05199 AU	opposition	-125 Aug 28 j 19:48	1°♂19'19	-2°-23'-4
direct	-131 Aug 24 j 04:56	15°♂56'45		min. Earth dist.	-125 Aug 28 j 22:27	1°♂18'48	8.43701 AU
evening set	-131 Dec 02 j 07:03	22°♂55'06			-125 Sep 15 j 03:34	30°♂	
conjunction	-131 Dec 18 j 21:42	24°♂52'12	0°24'36	direct	-125 Nov 04 j 06:39	27°♂57'32	
minimum elong	-131 Dec 18 j 21:43	24°♂52'12	0°24'37		-125 Dec 22 j 15:02	0°♂	
max. Earth dist.	-131 Dec 18 j 14:50	24°♂50'10	11.02205 AU	evening set	-124 Feb 12 j 15:59	5°♂32'09	
morning rise	-130 Jan 04 j 13:43	26°♂49'47		conjunction	-124 Feb 29 j 20:15	7°♂41'30	-2°-3'-25
	-130 Feb 02 j 18:53	0°♂		minimum elong	-124 Feb 29 j 20:13	7°♂41'29	2°03'25
retrograde	-130 Apr 16 j 19:52	3°♂57'47		max. Earth dist.	-124 Feb 29 j 16:36	7°♂40'21	10.37353 AU
opposition	-130 Jun 26 j 20:27	0°♂38'04	0°13'00	morning rise	-124 Mar 18 j 05:22	9°♂52'24	
min. Earth dist.	-130 Jun 27 j 02:09	0°♂37'00	8.98660 AU	retrograde	-124 Jul 03 j 03:11	17°♂56'01	
	-130 Jul 05 j 11:21	30°♂		opposition	-124 Sep 10 j 09:29	14°♂28'11	-2°-41'-11
direct	-130 Sep 04 j 23:19	27°♂19'56		min. Earth dist.	-124 Sep 10 j 11:14	14°♂27'50	8.31321 AU
	-130 Nov 02 j 00:10	0°♂		direct	-124 Nov 16 j 08:51	11°♂05'08	
desc. node	-130 Nov 16 j 14:20	1°♂22'04		evening set	-123 Feb 25 j 08:02	18°♂49'23	
evening set	-130 Dec 13 j 17:26	4°♂20'45					
conjunction	-130 Dec 30 j 09:28	6°♂19'10	0°-3'-20	conjunction	-123 Mar 14 j 16:06	21°♂01'32	-2°-14'-32
minimum elong	-130 Dec 30 j 09:28	6°♂19'10	0°03'21	minimum elong	-123 Mar 14 j 16:05	21°♂01'31	2°14'33
behind sun begin	-130 Dec 30 j 02:31	6°♂17'07		max. Earth dist.	-123 Mar 14 j 13:23	21°♂00'40	10.25319 AU
behind sun end	-130 Dec 30 j 16:25	6°♂21'13		morning rise	-123 Apr 01 j 05:08	23°♂15'15	
max. Earth dist.	-130 Dec 30 j 02:23	6°♂17'05	10.94666 AU		-123 Jun 05 j 22:34	0°♂	
morning rise	-129 Jan 16 j 03:42	8°♂18'19		retrograde	-123 Jul 17 j 12:09	1°♂28'01	
retrograde	-129 Apr 29 j 06:43	15°♂33'22			-123 Aug 28 j 11:49	30°♂	
opposition	-129 Jul 09 j 04:41	12°♂12'30	0°-21'-31	opposition	-123 Sep 24 j 05:29	27°♂59'04	-2°-51'-1
min. Earth dist.	-129 Jul 09 j 10:29	12°♂11'25	8.90148 AU	min. Earth dist.	-123 Sep 24 j 06:22	27°♂58'53	8.19898 AU
direct	-129 Sep 16 j 19:11	8°♂54'06		direct	-123 Nov 29 j 19:23	24°♂34'40	
evening set	-129 Dec 25 j 09:32	15°♂58'58			-122 Feb 19 j 04:30	0°♂	
				evening set	-122 Mar 11 j 11:18	2°♂28'26	
conjunction	-128 Jan 11 j 03:08	17°♂59'01	0°-31'-27	conjunction	-122 Mar 28 j 23:40	4°♂43'22	-2°-18'-26
minimum elong	-128 Jan 11 j 03:07	17°♂59'00	0°31'29	minimum elong	-122 Mar 28 j 23:41	4°♂43'22	2°18'26
max. Earth dist.	-128 Jan 10 j 19:38	17°♂56'45	10.85291 AU	max. Earth dist.	-122 Mar 28 j 22:52	4°♂43'07	10.14631 AU
morning rise	-128 Jan 27 j 23:56	20°♂00'03		morning rise	-122 Apr 15 j 16:42	6°♂59'48	
retrograde	-128 May 10 j 22:06	27°♂23'27		retrograde	-122 Aug 01 j 02:20	15°♂19'46	
opposition	-128 Jul 20 j 17:45	24°♂01'18	0°-55'-53	opposition	-122 Oct 08 j 06:47	11°♂49'59	-2°-51'-16
min. Earth dist.	-128 Jul 20 j 23:37	24°♂00'11	8.79985 AU	min. Earth dist.	-122 Oct 08 j 06:21	11°♂50'05	8.10177 AU
direct	-128 Sep 27 j 18:49	20°♂42'22		direct	-122 Dec 13 j 14:41	8°♂24'15	
evening set	-127 Jan 05 j 08:56	27°♂52'49		evening set	-121 Mar 26 j 00:36	16°♂26'42	
conjunction	-127 Jan 22 j 04:36	29°♂54'49	0°-58'-50	conjunction	-121 Apr 12 j 17:35	18°♂44'14	-2°-14'-20
minimum elong	-127 Jan 22 j 04:34	29°♂54'48	0°58'52	minimum elong	-121 Apr 12 j 17:37	18°♂44'14	2°14'20
max. Earth dist.	-127 Jan 21 j 21:43	29°♂52'43	10.74437 AU	max. Earth dist.	-121 Apr 12 j 19:23	18°♂44'49	10.06002 AU
	-127 Jan 22 j 21:39	0°♂		morning rise	-121 Apr 30 j 14:31	21°♂03'04	
morning rise	-127 Feb 08 j 04:09	1°♂57'59		retrograde	-121 Aug 15 j 19:49	29°♂27'37	
retrograde	-127 May 23 j 22:14	9°♂30'52		opposition	-121 Oct 22 j 12:24	25°♂57'20	-2°-41'-16
opposition	-127 Aug 02 j 12:18	6°♂07'16	-1°-28'-42	min. Earth dist.	-121 Oct 22 j 10:02	25°♂57'49	8.02805 AU
min. Earth dist.	-127 Aug 02 j 17:34	6°♂06'16	8.68564 AU				

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 24

Attention, astronomical year style is used: The year -121 in astronomical counting style is the year 122 BCE in historical counting style.

direct	-121 Dec 27 j 18:15	22° $\Upsilon$ 30'20		direct	-114 Mar 22 j 23:31	17° $\Theta$ 35'29	
	-120 Apr 03 j 16:49	0° $\mathcal{B}$		evening set	-114 Jul 07 j 06:12	25° $\Theta$ 40'58	
evening set	-120 Apr 08 j 22:10	0° $\mathcal{B}$ 39'55					
				conjunction	-114 Jul 25 j 04:37	27° $\Theta$ 56'32	0°53'47
conjunction	-120 Apr 26 j 19:40	2° $\mathcal{B}$ 59'40	-2°-2'-3	minimum elong	-114 Jul 25 j 04:35	27° $\Theta$ 56'32	0°53'47
minimum elong	-120 Apr 26 j 19:43	2° $\mathcal{B}$ 59'41	2°02'03	max. Earth dist.	-114 Jul 25 j 11:41	27° $\Theta$ 58'47	10.26777 AU
max. Earth dist.	-120 Apr 27 j 00:08	3° $\mathcal{B}$ 01'08	10.00015 AU		-114 Aug 10 j 12:14	0° $\mathcal{Q}$	
morning rise	-120 May 14 j 20:08	5° $\mathcal{B}$ 20'23		morning rise	-114 Aug 11 j 23:02	0° $\mathcal{Q}$ 10'49	
retrograde	-120 Aug 29 j 14:15	13° $\mathcal{B}$ 46'27		retrograde	-114 Nov 21 j 07:14	7° $\mathcal{Q}$ 54'15	
opposition	-120 Nov 04 j 20:37	10° $\mathcal{B}$ 16'03	-2°-21'-9	opposition	-113 Jan 27 j 03:53	4° $\mathcal{Q}$ 30'10	1°24'24
min. Earth dist.	-120 Nov 04 j 16:22	10° $\mathcal{B}$ 16'55	7.98275 AU	min. Earth dist.	-113 Jan 26 j 21:43	4° $\mathcal{Q}$ 31'24	8.32661 AU
direct	-119 Jan 10 j 02:58	6° $\mathcal{B}$ 47'56		direct	-113 Apr 06 j 03:00	1° $\mathcal{Q}$ 01'20	
	-119 Apr 23 j 17:45	15° $\mathcal{B}$		evening set	-113 Jul 21 j 09:31	8° $\mathcal{Q}$ 59'35	
evening set	-119 Apr 24 j 01:59	15° $\mathcal{B}$ 02'39					
				conjunction	-113 Aug 08 j 03:14	11° $\mathcal{Q}$ 12'02	1°21'47
conjunction	-119 May 12 j 03:23	17° $\mathcal{B}$ 23'57	-1°-42'-6	minimum elong	-113 Aug 08 j 03:11	11° $\mathcal{Q}$ 12'01	1°21'47
minimum elong	-119 May 12 j 03:27	17° $\mathcal{B}$ 23'58	1°42'06	max. Earth dist.	-113 Aug 08 j 09:51	11° $\mathcal{Q}$ 14'07	10.38825 AU
max. Earth dist.	-119 May 12 j 10:03	17° $\mathcal{B}$ 26'08	9.97066 AU	morning rise	-113 Aug 25 j 16:14	13° $\mathcal{Q}$ 23'01	
morning rise	-119 May 30 j 06:31	19° $\mathcal{B}$ 45'49			-113 Sep 08 j 03:47	15° $\mathcal{Q}$	
retrograde	-119 Sep 13 j 08:11	28° $\mathcal{B}$ 10'06		retrograde	-113 Dec 04 j 07:30	20° $\mathcal{Q}$ 56'38	
opposition	-119 Nov 19 j 05:28	24° $\mathcal{B}$ 40'01	-1°-52'-1	opposition	-112 Feb 09 j 10:48	17° $\mathcal{Q}$ 34'05	1°55'57
min. Earth dist.	-119 Nov 18 j 23:45	24° $\mathcal{B}$ 41'12	7.96883 AU	min. Earth dist.	-112 Feb 09 j 05:17	17° $\mathcal{Q}$ 35'11	8.45136 AU
direct	-118 Jan 24 j 15:37	21° $\mathcal{B}$ 10'59			-112 Mar 17 j 02:57	15° $\mathcal{R}$ $\mathcal{Q}$	
evening set	-118 May 09 j 08:57	29° $\mathcal{B}$ 28'29		direct	-112 Apr 18 j 23:07	14° $\mathcal{Q}$ 06'15	
	-118 May 13 j 10:41	0° $\mathcal{I}$			-112 May 21 j 15:59	15° $\mathcal{Q}$	
				evening set	-112 Aug 03 j 02:06	21° $\mathcal{Q}$ 56'31	
conjunction	-118 May 27 j 13:04	1° $\mathcal{I}$ 50'29	-1°-15'-43				
minimum elong	-118 May 27 j 13:07	1° $\mathcal{I}$ 50'30	1°15'44	conjunction	-112 Aug 20 j 14:37	24° $\mathcal{Q}$ 05'43	1°44'55
max. Earth dist.	-118 May 27 j 21:12	1° $\mathcal{I}$ 53'09	9.97339 AU	minimum elong	-112 Aug 20 j 14:33	24° $\mathcal{Q}$ 05'42	1°44'55
morning rise	-118 Jun 14 j 17:35	4° $\mathcal{I}$ 12'37		max. Earth dist.	-112 Aug 20 j 20:20	24° $\mathcal{Q}$ 07'30	10.51498 AU
retrograde	-118 Sep 27 j 22:51	12° $\mathcal{I}$ 32'07		morning rise	-112 Sep 06 j 22:00	26° $\mathcal{Q}$ 13'24	
opposition	-118 Dec 03 j 13:24	9° $\mathcal{I}$ 02'44	-1°-15'-53		-112 Oct 10 j 14:24	0° $\mathcal{P}$	
min. Earth dist.	-118 Dec 03 j 06:59	9° $\mathcal{I}$ 04'03	7.98713 AU	retrograde	-112 Dec 15 j 23:07	3° $\mathcal{P}$ 37'52	
direct	-117 Feb 08 j 06:49	5° $\mathcal{I}$ 33'04		opposition	-111 Feb 21 j 11:39	0° $\mathcal{P}$ 16'50	2°20'50
evening set	-117 May 24 j 15:40	13° $\mathcal{I}$ 50'49		min. Earth dist.	-111 Feb 21 j 07:34	0° $\mathcal{P}$ 17'38	8.57920 AU
					-111 Feb 25 j 01:49	30° $\mathcal{R}$ $\mathcal{Q}$	
conjunction	-117 Jun 11 j 20:53	16° $\mathcal{I}$ 12'32	0°-44'-45	direct	-111 May 02 j 12:44	26° $\mathcal{Q}$ 50'12	
minimum elong	-117 Jun 11 j 20:55	16° $\mathcal{I}$ 12'33	0°44'45		-111 Jul 05 j 08:42	0° $\mathcal{P}$	
max. Earth dist.	-117 Jun 12 j 05:37	16° $\mathcal{I}$ 15'23	10.00791 AU	evening set	-111 Aug 16 j 07:40	4° $\mathcal{P}$ 32'07	
morning rise	-117 Jun 30 j 01:14	18° $\mathcal{I}$ 33'57					
retrograde	-117 Oct 12 j 07:38	26° $\mathcal{I}$ 46'16		conjunction	-111 Sep 02 j 14:47	6° $\mathcal{P}$ 38'08	2°02'26
opposition	-117 Dec 17 j 18:30	23° $\mathcal{I}$ 17'54	0°-35'-21	minimum elong	-111 Sep 02 j 14:44	6° $\mathcal{P}$ 38'08	2°02'25
min. Earth dist.	-117 Dec 17 j 12:02	23° $\mathcal{I}$ 19'14	8.03628 AU	max. Earth dist.	-111 Sep 02 j 18:50	6° $\mathcal{P}$ 39'23	10.64156 AU
direct	-116 Feb 22 j 22:48	19° $\mathcal{I}$ 47'54		morning rise	-111 Sep 19 j 16:53	8° $\mathcal{P}$ 42'40	
evening set	-116 Jun 07 j 19:20	28° $\mathcal{I}$ 03'33		retrograde	-111 Dec 28 j 08:09	15° $\mathcal{P}$ 59'00	
	-116 Jun 22 j 21:47	0° $\mathcal{E}$		opposition	-110 Mar 06 j 06:42	12° $\mathcal{P}$ 39'20	2°38'23
				min. Earth dist.	-110 Mar 06 j 04:27	12° $\mathcal{P}$ 39'46	8.70396 AU
conjunction	-116 Jun 25 j 23:54	0° $\mathcal{E}$ 24'00	0°-11'-23	direct	-110 May 15 j 18:16	9° $\mathcal{P}$ 14'01	
minimum elong	-116 Jun 25 j 23:55	0° $\mathcal{E}$ 24'01	0°11'24	evening set	-110 Aug 29 j 02:34	16° $\mathcal{P}$ 47'35	
behind sun begin	-116 Jun 25 j 18:39	0° $\mathcal{E}$ 22'19					
behind sun end	-116 Jun 26 j 05:10	0° $\mathcal{E}$ 25'42		conjunction	-110 Sep 15 j 04:40	18° $\mathcal{P}$ 50'43	2°13'54
max. Earth dist.	-116 Jun 26 j 08:24	0° $\mathcal{E}$ 26'45	10.07164 AU	minimum elong	-110 Sep 15 j 04:38	18° $\mathcal{P}$ 50'43	2°13'54
morning rise	-116 Jul 14 j 02:24	2° $\mathcal{E}$ 43'46		max. Earth dist.	-110 Sep 15 j 06:19	18° $\mathcal{P}$ 51'13	10.76223 AU
retrograde	-116 Oct 25 j 07:49	10° $\mathcal{E}$ 47'07		morning rise	-110 Oct 02 j 02:12	20° $\mathcal{P}$ 52'28	
asc. node	-116 Oct 31 j 17:15	10° $\mathcal{E}$ 44'49		retrograde	-109 Jan 09 j 10:02	28° $\mathcal{P}$ 01'46	
opposition	-116 Dec 30 j 19:09	7° $\mathcal{E}$ 20'04	0°06'38	opposition	-109 Mar 18 j 20:16	24° $\mathcal{P}$ 43'15	2°48'23
min. Earth dist.	-116 Dec 30 j 12:56	7° $\mathcal{E}$ 21'20	8.11278 AU	min. Earth dist.	-109 Mar 18 j 19:14	24° $\mathcal{P}$ 43'27	8.82008 AU
direct	-115 Mar 08 j 13:35	3° $\mathcal{E}$ 50'05		direct	-109 May 28 j 16:52	21° $\mathcal{P}$ 19'19	
evening set	-115 Jun 22 j 17:01	12° $\mathcal{E}$ 01'32		evening set	-109 Sep 10 j 11:27	28° $\mathcal{P}$ 44'52	
					-109 Sep 21 j 01:13	0° $\mathcal{A}$	
conjunction	-115 Jul 10 j 19:14	14° $\mathcal{E}$ 19'52	0°22'11				
minimum elong	-115 Jul 10 j 19:13	14° $\mathcal{E}$ 19'52	0°22'12	conjunction	-109 Sep 27 j 09:19	0° $\mathcal{A}$ 45'30	2°19'16
max. Earth dist.	-115 Jul 11 j 03:02	14° $\mathcal{E}$ 22'22	10.16014 AU	minimum elong	-109 Sep 27 j 09:19	0° $\mathcal{A}$ 45'29	2°19'16
morning rise	-115 Jul 28 j 18:18	16° $\mathcal{E}$ 37'10		max. Earth dist.	-109 Sep 27 j 09:18	0° $\mathcal{A}$ 45'29	10.87180 AU
retrograde	-115 Nov 07 j 23:06	24° $\mathcal{E}$ 30'40		morning rise	-109 Oct 14 j 03:04	2° $\mathcal{A}$ 44'54	
opposition	-114 Jan 13 j 14:33	21° $\mathcal{E}$ 05'04	0°47'21	retrograde	-108 Jan 21 j 07:44	9° $\mathcal{A}$ 48'30	
min. Earth dist.	-114 Jan 13 j 08:28	21° $\mathcal{E}$ 06'18	8.21158 AU	opposition	-108 Mar 30 j 05:10	6° $\mathcal{A}$ 30'52	2°51'01

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 25

Attention, astronomical year style is used: The year -108 in astronomical counting style is the year 109 BCE in historical counting style.

min. Earth dist.	-108 Mar 30 j 04:57	6°♄30'55	8.92253 AU	min. Earth dist.	-102 Jun 09 j 19:38	14°♄18'06	9.07753 AU
direct	-108 Jun 09 j 09:43	3°♄08'17		direct	-102 Aug 19 j 04:12	11°♄01'28	
evening set	-108 Sep 21 j 11:37	10°♄26'25		evening set	-102 Nov 27 j 12:58	17°♄59'28	
conjunction	-108 Oct 08 j 06:07	12°♄25'01	2°18'43	conjunction	-102 Dec 14 j 02:59	19°♄56'06	0°36'58
minimum elong	-108 Oct 08 j 06:08	12°♄25'01	2°18'43	minimum elong	-102 Dec 14 j 03:00	19°♄56'06	0°36'58
max. Earth dist.	-108 Oct 08 j 05:15	12°♄24'45	10.96572 AU	max. Earth dist.	-102 Dec 13 j 17:52	19°♄53'25	11.05018 AU
morning rise	-108 Oct 24 j 20:51	14°♄22'32		morning rise	-102 Dec 30 j 18:11	21°♄53'08	
retrograde	-107 Feb 01 j 03:05	21°♄21'46		retrograde	-101 Apr 11 j 15:45	28°♄58'33	
opposition	-107 Apr 11 j 10:16	18°♄04'48	2°46'38	opposition	-101 Jun 21 j 15:47	25°♄39'30	0°28'29
min. Earth dist.	-107 Apr 11 j 11:13	18°♄04'38	9.00729 AU	min. Earth dist.	-101 Jun 21 j 23:44	25°♄38'02	9.01718 AU
direct	-107 Jun 21 j 18:05	14°♄43'30		direct	-101 Aug 30 j 22:52	22°♄21'26	
evening set	-107 Oct 03 j 04:30	21°♄55'02		evening set	-101 Dec 08 j 21:39	29°♄21'18	
conjunction	-107 Oct 19 j 20:25	23°♄52'05	2°12'35		-101 Dec 14 j 09:57	0°♄	
minimum elong	-107 Oct 19 j 20:26	23°♄52'05	2°12'35	conjunction	-101 Dec 25 j 12:55	1°♄19'08	0°09'37
max. Earth dist.	-107 Oct 19 j 18:18	23°♄51'28	11.04040 AU	minimum elong	-101 Dec 25 j 12:56	1°♄19'09	0°09'37
morning rise	-107 Nov 05 j 09:08	25°♄48'16		behind sun begin	-101 Dec 25 j 07:07	1°♄17'26	
	-107 Dec 15 j 19:32	0°♄		behind sun end	-101 Dec 25 j 18:44	1°♄20'51	
retrograde	-106 Feb 12 j 18:36	2°♄44'34		max. Earth dist.	-101 Dec 25 j 03:41	1°♄16'25	10.97927 AU
	-106 Apr 16 j 06:28	30°♄		morning rise	-100 Jan 11 j 06:14	3°♄17'36	
opposition	-106 Apr 23 j 12:34	29°♄27'58	2°35'46	retrograde	-100 Apr 22 j 22:47	10°♄29'33	
min. Earth dist.	-106 Apr 23 j 15:32	29°♄27'25	9.07118 AU	desc. node	-100 May 01 j 22:26	10°♄25'38	
direct	-106 Jul 03 j 21:26	26°♄07'45		opposition	-100 Jul 02 j 22:30	7°♄09'12	0°-5'-40
	-106 Sep 14 j 12:54	0°♄		min. Earth dist.	-100 Jul 03 j 06:08	7°♄07'47	8.93580 AU
evening set	-106 Oct 14 j 15:31	3°♄13'47		direct	-100 Sep 10 j 19:21	3°♄50'48	
conjunction	-106 Oct 31 j 05:34	5°♄09'47	2°01'20	evening set	-100 Dec 19 j 11:00	10°♄54'03	
minimum elong	-106 Oct 31 j 05:36	5°♄09'47	2°01'20	conjunction	-99 Jan 05 j 03:58	12°♄53'25	0°-18'-37
max. Earth dist.	-106 Oct 31 j 01:01	5°♄08'27	11.09295 AU	minimum elong	-99 Jan 05 j 03:57	12°♄53'25	0°18'38
morning rise	-106 Nov 16 j 17:26	7°♄05'10		max. Earth dist.	-99 Jan 04 j 19:54	12°♄51'01	10.88859 AU
retrograde	-105 Feb 24 j 09:28	14°♄00'02		morning rise	-99 Jan 21 j 23:32	14°♄53'40	
opposition	-105 May 05 j 12:47	10°♄43'31	2°19'03	retrograde	-99 May 05 j 12:03	22°♄13'33	
min. Earth dist.	-105 May 05 j 17:28	10°♄42'39	9.11147 AU	opposition	-99 Jul 15 j 09:31	18°♄51'43	0°-40'-18
direct	-105 Jul 15 j 21:27	7°♄24'12		min. Earth dist.	-99 Jul 15 j 15:59	18°♄50'30	8.83646 AU
evening set	-105 Oct 25 j 22:29	14°♄25'59		direct	-99 Sep 22 j 17:47	15°♄32'44	
	-105 Oct 30 j 20:33	15°♄		evening set	-99 Dec 31 j 07:04	22°♄40'57	
conjunction	-105 Nov 11 j 11:34	16°♄21'27	1°45'30	conjunction	-98 Jan 17 j 01:56	24°♄42'11	0°-46'-30
minimum elong	-105 Nov 11 j 11:36	16°♄21'28	1°45'29	minimum elong	-98 Jan 17 j 01:54	24°♄42'11	0°46'32
max. Earth dist.	-105 Nov 11 j 05:18	16°♄19'37	11.12088 AU	max. Earth dist.	-98 Jan 16 j 18:25	24°♄39'55	10.78162 AU
morning rise	-105 Nov 27 j 23:18	18°♄16'32		morning rise	-98 Feb 03 j 00:06	26°♄44'29	
retrograde	-104 Mar 07 j 00:01	25°♄11'35			-98 Mar 04 j 05:55	0°♄	
opposition	-104 May 16 j 11:56	21°♄54'50	1°57'10	retrograde	-98 May 18 j 10:00	4°♄13'28	
min. Earth dist.	-104 May 16 j 17:29	21°♄53'49	9.12608 AU	opposition	-98 Jul 28 j 01:34	0°♄50'06	-1°-14'-2
direct	-104 Jul 26 j 17:48	18°♄36'13		min. Earth dist.	-98 Jul 28 j 07:17	0°♄49'01	8.72301 AU
evening set	-104 Nov 05 j 03:07	25°♄35'15			-98 Aug 08 j 03:54	30°♄	
conjunction	-104 Nov 21 j 16:04	27°♄30'39	1°25'42	direct	-98 Oct 04 j 20:59	27°♄30'18	
minimum elong	-104 Nov 21 j 16:06	27°♄30'40	1°25'42		-98 Nov 28 j 16:38	0°♄	
max. Earth dist.	-104 Nov 21 j 09:20	27°♄28'41	11.12271 AU	evening set	-97 Jan 12 j 11:15	4°♄44'59	
morning rise	-104 Dec 08 j 04:15	29°♄25'56		conjunction	-97 Jan 29 j 08:15	6°♄48'22	-1°-12'-58
	-104 Dec 13 j 04:02	0°♄		minimum elong	-97 Jan 29 j 08:13	6°♄48'21	1°13'00
retrograde	-103 Mar 18 j 18:48	6°♄22'53		max. Earth dist.	-97 Jan 29 j 00:46	6°♄46'04	10.66258 AU
opposition	-103 May 28 j 11:32	3°♄05'38	1°30'53	morning rise	-97 Feb 15 j 09:24	8°♄53'01	
min. Earth dist.	-103 May 28 j 17:32	3°♄04'32	9.11443 AU		-97 Apr 18 j 00:38	15°♄	
	-103 Jul 22 j 07:32	30°♄		retrograde	-97 May 31 j 15:15	16°♄32'00	
direct	-103 Aug 07 j 12:30	29°♄47'30			-97 Jul 15 j 01:08	15°♄	
	-103 Aug 23 j 12:40	0°♄		opposition	-97 Aug 09 j 23:38	13°♄07'03	-1°-45'-23
evening set	-103 Nov 16 j 07:16	6°♄45'13		min. Earth dist.	-97 Aug 10 j 04:54	13°♄06'02	8.60002 AU
conjunction	-103 Dec 02 j 20:34	8°♄41'03	1°02'37	direct	-97 Oct 17 j 04:49	9°♄46'16	
minimum elong	-103 Dec 02 j 20:36	8°♄41'04	1°02'36		-96 Jan 06 j 18:19	15°♄	
max. Earth dist.	-103 Dec 02 j 12:51	8°♄38'47	11.09866 AU	evening set	-96 Jan 25 j 00:40	17°♄08'44	
morning rise	-103 Dec 19 j 09:57	10°♄37'00		conjunction	-96 Feb 11 j 00:16	19°♄14'29	-1°-36'-42
retrograde	-102 Mar 30 j 15:45	17°♄37'25		minimum elong	-96 Feb 11 j 00:13	19°♄14'28	1°36'43
opposition	-102 Jun 09 j 12:34	14°♄19'24	1°01'01	max. Earth dist.	-96 Feb 10 j 17:58	19°♄12'31	10.53644 AU

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 26

Attention, astronomical year style is used: The year -96 in astronomical counting style is the year 97 BCE in historical counting style.

morning rise	-96 Feb 28 j 04:33	21° $\approx$ 21'41		min. Earth dist.	-90 Nov 12 j 23:42	18° $\approx$ 29'25	7.96723 AU
retrograde	-96 Jun 13 j 03:58	29° $\approx$ 11'12			-89 Jan 16 j 06:31	15° $\approx$ 8	
opposition	-96 Aug 22 j 04:08	25° $\approx$ 44'43	-2°-12'-38	direct	-89 Jan 18 j 12:08	14° $\approx$ 59'43	
min. Earth dist.	-96 Aug 22 j 08:25	25° $\approx$ 43'53	8.47283 AU		-89 Jan 20 j 17:48	15° $\approx$ 8	
direct	-96 Oct 28 j 20:53	22° $\approx$ 22'49		evening set	-89 May 02 j 21:50	23° $\approx$ 16'37	
evening set	-95 Feb 06 j 00:41	29° $\approx$ 54'04					
	-95 Feb 06 j 19:55	0° $\approx$ 8		conjunction	-89 May 21 j 00:44	25° $\approx$ 38'27	-1°-28'-11
				minimum elong	-89 May 21 j 00:48	25° $\approx$ 38'28	1°28'11
conjunction	-95 Feb 23 j 03:30	2° $\approx$ 02'27	-1°-56'-17	max. Earth dist.	-89 May 21 j 08:22	25° $\approx$ 40'58	9.96641 AU
minimum elong	-95 Feb 23 j 03:27	2° $\approx$ 02'26	1°56'18	morning rise	-89 Jun 08 j 04:58	28° $\approx$ 00'40	
max. Earth dist.	-95 Feb 22 j 23:20	2° $\approx$ 01'08	10.40888 AU		-89 Jun 24 j 01:52	0° $\approx$ 11	
morning rise	-95 Mar 12 j 11:07	4° $\approx$ 12'21		retrograde	-89 Sep 21 j 20:41	6° $\approx$ 12'3'00	
retrograde	-95 Jun 27 j 01:27	12° $\approx$ 12'19		opposition	-89 Nov 27 j 13:54	2° $\approx$ 15'3'25	-1°-32'-41
opposition	-95 Sep 04 j 15:05	8° $\approx$ 44'24	-2°-34'-1	min. Earth dist.	-89 Nov 27 j 07:27	2° $\approx$ 15'4'45	7.97540 AU
min. Earth dist.	-95 Sep 04 j 17:35	8° $\approx$ 43'54	8.34740 AU		-88 Jan 07 j 18:18	30° $\approx$ 8	
direct	-95 Nov 10 j 20:56	5° $\approx$ 21'17		direct	-88 Feb 02 j 03:44	29° $\approx$ 8'24'14	
evening set	-94 Feb 19 j 11:53	13° $\approx$ 01'57			-88 Feb 27 j 11:05	0° $\approx$ 11	
				evening set	-88 May 17 j 05:30	7° $\approx$ 14'2'24	
conjunction	-94 Mar 08 j 18:23	15° $\approx$ 13'05	-2°-10'-22				
minimum elong	-94 Mar 08 j 18:21	15° $\approx$ 13'05	2°10'23	conjunction	-88 Jun 04 j 10:24	10° $\approx$ 10'4'22	0°-58'-58
max. Earth dist.	-94 Mar 08 j 16:36	15° $\approx$ 12'31	10.28619 AU	minimum elong	-88 Jun 04 j 10:27	10° $\approx$ 10'4'23	0°58'57
morning rise	-94 Mar 26 j 05:35	17° $\approx$ 25'46		max. Earth dist.	-88 Jun 04 j 19:37	10° $\approx$ 10'7'23	9.99121 AU
retrograde	-94 Jul 11 j 08:17	25° $\approx$ 35'23		morning rise	-88 Jun 22 j 15:10	12° $\approx$ 12'6'16	
opposition	-94 Sep 18 j 08:30	22° $\approx$ 06'16	-2°-47'-48	retrograde	-88 Oct 05 j 08:05	20° $\approx$ 12'4'16	
min. Earth dist.	-94 Sep 18 j 08:54	22° $\approx$ 06'11	8.23008 AU	opposition	-88 Dec 10 j 20:50	17° $\approx$ 11'3'43	0°-53'-43
direct	-94 Nov 24 j 03:08	18° $\approx$ 41'54		min. Earth dist.	-88 Dec 10 j 13:14	17° $\approx$ 11'5'18	8.01532 AU
evening set	-93 Mar 05 j 10:19	26° $\approx$ 32'05		direct	-87 Feb 15 j 20:29	13° $\approx$ 12'4'15	
				evening set	-87 Jun 01 j 11:32	22° $\approx$ 12'0'12	
conjunction	-93 Mar 22 j 20:51	28° $\approx$ 46'00	-2°-17'-40				
minimum elong	-93 Mar 22 j 20:50	28° $\approx$ 46'00	2°17'40	conjunction	-87 Jun 19 j 16:41	24° $\approx$ 12'2'17	0°-26'-20
max. Earth dist.	-93 Mar 22 j 21:13	28° $\approx$ 46'07	10.17503 AU	minimum elong	-87 Jun 19 j 16:43	24° $\approx$ 12'2'18	0°26'20
	-93 Apr 01 j 10:53	0° $\approx$ 9		max. Earth dist.	-87 Jun 20 j 02:49	24° $\approx$ 12'5'34	10.04646 AU
morning rise	-93 Apr 09 j 11:55	1° $\approx$ 01'25		morning rise	-87 Jul 07 j 20:11	26° $\approx$ 12'4'51	
retrograde	-93 Jul 25 j 21:12	9° $\approx$ 19'08			-87 Aug 04 j 01:53	0° $\approx$ 8	
opposition	-93 Oct 02 j 07:48	5° $\approx$ 49'06	-2°-52'-30	retrograde	-87 Oct 19 j 12:37	4° $\approx$ 50'24	
min. Earth dist.	-93 Oct 02 j 06:16	5° $\approx$ 49'25	8.12753 AU	opposition	-87 Dec 24 j 23:57	1° $\approx$ 52'3'10	0°-11'-58
direct	-93 Dec 07 j 18:03	2° $\approx$ 23'30		min. Earth dist.	-87 Dec 24 j 16:02	1° $\approx$ 52'4'48	8.08396 AU
evening set	-92 Mar 18 j 19:26	10° $\approx$ 22'42			-86 Jan 11 j 08:03	30° $\approx$ 8	
				direct	-86 Mar 02 j 11:43	27° $\approx$ 12'5'41	
conjunction	-92 Apr 05 j 10:20	12° $\approx$ 39'16	-2°-17'-13	asc. node	-86 Apr 11 j 23:55	29° $\approx$ 12'0'17	
minimum elong	-92 Apr 05 j 10:21	12° $\approx$ 39'17	2°17'14		-86 Apr 20 j 20:41	0° $\approx$ 8	
max. Earth dist.	-92 Apr 05 j 12:29	12° $\approx$ 39'58	10.08217 AU	evening set	-86 Jun 16 j 12:37	6° $\approx$ 50'7'05	
morning rise	-92 Apr 23 j 05:27	14° $\approx$ 57'14					
retrograde	-92 Aug 08 j 14:27	23° $\approx$ 20'42		conjunction	-86 Jul 04 j 16:10	8° $\approx$ 52'6'22	0°07'28
opposition	-92 Oct 15 j 12:00	19° $\approx$ 50'09	-2°-47'-7	minimum elong	-86 Jul 04 j 16:10	8° $\approx$ 52'6'22	0°07'29
min. Earth dist.	-92 Oct 15 j 09:07	19° $\approx$ 50'44	8.04620 AU	behind sun begin	-86 Jul 04 j 09:30	8° $\approx$ 52'4'15	
direct	-92 Dec 20 j 17:29	16° $\approx$ 23'22		behind sun end	-86 Jul 04 j 22:49	8° $\approx$ 52'8'30	
evening set	-91 Apr 02 j 13:51	24° $\approx$ 30'25		max. Earth dist.	-86 Jul 05 j 02:10	8° $\approx$ 52'9'35	10.12792 AU
				morning rise	-86 Jul 22 j 16:46	10° $\approx$ 54'4'44	
conjunction	-91 Apr 20 j 09:16	26° $\approx$ 49'22	-2°-8'-35	retrograde	-86 Nov 02 j 09:39	18° $\approx$ 54'2'36	
minimum elong	-91 Apr 20 j 09:19	26° $\approx$ 49'23	2°08'35	opposition	-85 Jan 07 j 22:09	15° $\approx$ 51'6'48	0°29'37
max. Earth dist.	-91 Apr 20 j 13:14	26° $\approx$ 50'40	10.01364 AU	min. Earth dist.	-85 Jan 07 j 14:49	15° $\approx$ 51'8'18	8.17616 AU
morning rise	-91 May 08 j 08:17	29° $\approx$ 09'27		direct	-85 Mar 16 j 22:40	11° $\approx$ 54'7'34	
	-91 May 14 j 23:27	0° $\approx$ 8		evening set	-85 Jul 01 j 06:01	19° $\approx$ 55'5'33	
retrograde	-91 Aug 23 j 09:32	7° $\approx$ 35'44					
opposition	-91 Oct 29 j 19:38	4° $\approx$ 05'06	-2°-31'-25	conjunction	-85 Jul 19 j 06:21	22° $\approx$ 51'2'21	0°40'07
min. Earth dist.	-91 Oct 29 j 15:37	4° $\approx$ 05'56	7.99147 AU	minimum elong	-85 Jul 19 j 06:19	22° $\approx$ 51'2'20	0°40'08
direct	-90 Jan 04 j 00:09	0° $\approx$ 37'18		max. Earth dist.	-85 Jul 19 j 15:03	22° $\approx$ 51'5'07	10.22933 AU
evening set	-90 Apr 17 j 15:35	8° $\approx$ 50'24		morning rise	-85 Aug 06 j 02:47	24° $\approx$ 52'7'54	
					-85 Sep 26 j 04:07	0° $\approx$ 11	
conjunction	-90 May 05 j 15:10	11° $\approx$ 11'10	-1°-51'-56	retrograde	-85 Nov 15 j 22:17	2° $\approx$ 11'5'38	
minimum elong	-90 May 05 j 15:13	11° $\approx$ 11'12	1°51'56		-84 Jan 07 j 03:04	30° $\approx$ 8	
max. Earth dist.	-90 May 05 j 20:59	11° $\approx$ 13'05	9.97407 AU	opposition	-84 Jan 21 j 14:25	28° $\approx$ 51'1'22	1°08'32
morning rise	-90 May 23 j 17:20	13° $\approx$ 32'45		min. Earth dist.	-84 Jan 21 j 08:41	28° $\approx$ 52'2'31	8.28496 AU
	-90 Jun 04 j 05:27	15° $\approx$ 8		direct	-84 Mar 30 j 05:07	25° $\approx$ 52'2'41	
retrograde	-90 Sep 07 j 04:18	21° $\approx$ 58'38			-84 Jun 15 j 08:06	0° $\approx$ 11	
opposition	-90 Nov 13 j 04:52	18° $\approx$ 28'20	-2°-6'-3	evening set	-84 Jul 14 j 14:19	3° $\approx$ 11'24'04	



# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 27

Attention, astronomical year style is used: The year -84 in astronomical counting style is the year 85 BCE in historical counting style.

conjunction	-84 Aug 01 j 10:10	5°♄37'53	1°09'54	conjunction	-78 Oct 15 j 06:39	19°♄12'27	2°15'53
minimum elong	-84 Aug 01 j 10:07	5°♄37'52	1°09'54	minimum elong	-78 Oct 15 j 06:40	19°♄12'27	2°15'54
max. Earth dist.	-84 Aug 01 j 16:30	5°♄39'53	10.34359 AU	max. Earth dist.	-78 Oct 15 j 03:08	19°♄11'25	10.99234 AU
morning rise	-84 Aug 19 j 01:35	7°♄50'17		morning rise	-78 Oct 31 j 20:25	21°♄09'23	
	-84 Nov 05 j 09:12	15°♄		retrograde	-77 Feb 08 j 02:42	28°♄07'30	
retrograde	-84 Nov 28 j 01:18	15°♄28'08		opposition	-77 Apr 18 j 17:01	24°♄50'19	2°41'17
	-84 Dec 20 j 20:57	15°♄		min. Earth dist.	-77 Apr 18 j 19:53	24°♄49'47	9.02643 AU
opposition	-83 Feb 03 j 00:26	12°♄05'26	1°42'42	direct	-77 Jun 29 j 02:42	21°♄29'07	
min. Earth dist.	-83 Feb 02 j 20:13	12°♄06'17	8.40366 AU	evening set	-77 Oct 10 j 03:22	28°♄38'14	
direct	-83 Apr 13 j 05:53	8°♄37'35			-77 Oct 21 j 19:55	0°♄	
	-83 Jul 15 j 17:14	15°♄					
evening set	-83 Jul 28 j 12:15	16°♄31'34		conjunction	-77 Oct 26 j 18:21	0°♄34'52	2°06'47
				minimum elong	-77 Oct 26 j 18:22	0°♄34'52	2°06'47
conjunction	-83 Aug 15 j 02:57	18°♄42'11	1°35'19	max. Earth dist.	-77 Oct 26 j 14:25	0°♄33'42	11.05195 AU
minimum elong	-83 Aug 15 j 02:54	18°♄42'10	1°35'18	morning rise	-77 Nov 12 j 06:38	2°♄30'46	
max. Earth dist.	-83 Aug 15 j 07:00	18°♄43'26	10.46473 AU	retrograde	-76 Feb 19 j 19:44	9°♄26'49	
morning rise	-83 Sep 01 j 12:57	20°♄51'19		opposition	-76 Apr 29 j 18:17	6°♄09'44	2°27'01
retrograde	-83 Dec 10 j 19:53	28°♄19'56		min. Earth dist.	-76 Apr 29 j 21:46	6°♄09'06	9.07502 AU
opposition	-82 Feb 16 j 04:25	24°♄58'41	2°10'39	direct	-76 Jul 10 j 04:52	2°♄49'29	
min. Earth dist.	-82 Feb 16 j 01:02	24°♄59'21	8.52667 AU	evening set	-76 Oct 20 j 12:09	9°♄53'46	
direct	-82 Apr 27 j 00:16	21°♄31'51					
evening set	-82 Aug 10 j 23:03	29°♄17'49		conjunction	-76 Nov 06 j 01:51	11°♄49'39	1°52'51
	-82 Aug 16 j 18:27	0°♄		minimum elong	-76 Nov 06 j 01:53	11°♄49'40	1°52'51
				max. Earth dist.	-76 Nov 05 j 21:08	11°♄48'16	11.08951 AU
conjunction	-82 Aug 28 j 08:30	1°♄25'15	1°55'23	morning rise	-76 Nov 22 j 13:31	13°♄45'02	
minimum elong	-82 Aug 28 j 08:27	1°♄25'14	1°55'23		-76 Dec 03 j 15:32	15°♄	
max. Earth dist.	-82 Aug 28 j 11:14	1°♄26'06	10.58745 AU	retrograde	-75 Mar 02 j 10:28	20°♄40'32	
morning rise	-82 Sep 14 j 13:04	3°♄31'13		opposition	-75 May 11 j 18:17	17°♄23'21	2°07'14
retrograde	-82 Dec 23 j 09:09	10°♄51'27		min. Earth dist.	-75 May 11 j 23:02	17°♄22'28	9.10080 AU
opposition	-81 Mar 01 j 02:24	7°♄31'27	2°31'31		-75 Jun 17 j 01:22	15°♄	
min. Earth dist.	-81 Feb 28 j 23:45	7°♄31'58	8.64856 AU	direct	-75 Jul 22 j 00:41	14°♄03'52	
direct	-81 May 10 j 09:26	4°♄05'46			-75 Aug 25 j 10:17	15°♄	
evening set	-81 Aug 23 j 23:09	11°♄43'28		evening set	-75 Oct 31 j 17:56	21°♄04'39	
conjunction	-81 Sep 10 j 03:36	13°♄47'58	2°09'33	conjunction	-75 Nov 17 j 06:56	23°♄00'15	1°34'40
minimum elong	-81 Sep 10 j 03:34	13°♄47'57	2°09'33	minimum elong	-75 Nov 17 j 06:58	23°♄00'15	1°34'40
max. Earth dist.	-81 Sep 10 j 05:23	13°♄48'31	10.70634 AU	max. Earth dist.	-75 Nov 17 j 00:36	22°♄58'23	11.10392 AU
morning rise	-81 Sep 27 j 03:07	15°♄51'00		morning rise	-75 Dec 03 j 18:59	24°♄55'36	
retrograde	-80 Jan 04 j 14:53	23°♄03'49			-74 Jan 24 j 10:57	0°♄	
opposition	-80 Mar 12 j 18:41	19°♄44'53	2°44'53	retrograde	-74 Mar 14 j 02:34	1°♄52'08	
min. Earth dist.	-80 Mar 12 j 17:26	19°♄45'07	8.76394 AU		-74 May 03 j 16:35	30°♄	
direct	-80 May 22 j 11:15	16°♄20'22		opposition	-74 May 23 j 17:53	28°♄34'35	1°42'43
evening set	-80 Sep 04 j 13:01	23°♄50'00		min. Earth dist.	-74 May 23 j 23:51	28°♄33'29	9.10303 AU
				direct	-74 Aug 02 j 20:52	25°♄15'42	
conjunction	-80 Sep 21 j 12:54	25°♄51'51	2°17'37		-74 Oct 22 j 14:32	0°♄	
minimum elong	-80 Sep 21 j 12:53	25°♄51'51	2°17'37	evening set	-74 Nov 11 j 22:14	2°♄14'25	
max. Earth dist.	-80 Sep 21 j 13:18	25°♄51'58	10.81626 AU				
morning rise	-80 Oct 08 j 08:09	27°♄52'23		conjunction	-74 Nov 28 j 11:19	4°♄10'11	1°12'53
	-80 Oct 27 j 01:13	0°♄		minimum elong	-74 Nov 28 j 11:22	4°♄10'12	1°12'52
retrograde	-79 Jan 15 j 15:04	4°♄58'56		max. Earth dist.	-74 Nov 28 j 04:06	4°♄08'04	11.09464 AU
opposition	-79 Mar 25 j 06:12	1°♄40'52	2°50'45	morning rise	-74 Dec 15 j 00:23	6°♄05'58	
min. Earth dist.	-79 Mar 25 j 06:58	1°♄40'43	8.86798 AU	retrograde	-73 Mar 25 j 21:41	13°♄05'06	
	-79 Apr 17 j 12:57	30°♄		opposition	-73 Jun 04 j 18:10	9°♄46'58	1°14'14
direct	-79 Jun 04 j 06:42	28°♄17'31		min. Earth dist.	-73 Jun 05 j 00:12	9°♄45'51	9.08145 AU
	-79 Jul 20 j 23:46	0°♄		direct	-73 Aug 14 j 14:48	6°♄28'30	
evening set	-79 Sep 16 j 17:23	5°♄39'30		evening set	-73 Nov 23 j 03:01	13°♄26'37	
conjunction	-79 Oct 03 j 13:20	7°♄39'07	2°19'38	conjunction	-73 Dec 09 j 16:48	15°♄22'59	0°48'13
minimum elong	-79 Oct 03 j 13:20	7°♄39'07	2°19'38	minimum elong	-73 Dec 09 j 16:50	15°♄22'59	0°48'13
max. Earth dist.	-79 Oct 03 j 11:29	7°♄38'34	10.91281 AU	max. Earth dist.	-73 Dec 09 j 10:02	15°♄20'59	11.06172 AU
morning rise	-79 Oct 20 j 05:22	9°♄37'36		morning rise	-73 Dec 26 j 07:11	17°♄19'36	
retrograde	-78 Jan 27 j 10:44	16°♄39'14		retrograde	-72 Apr 05 j 21:04	24°♄22'55	
opposition	-78 Apr 06 j 13:28	13°♄21'45	2°49'24	opposition	-72 Jun 15 j 20:19	21°♄03'58	0°42'42
min. Earth dist.	-78 Apr 06 j 15:41	13°♄21'20	8.95658 AU	min. Earth dist.	-72 Jun 16 j 01:58	21°♄02'56	9.03671 AU
direct	-78 Jun 16 j 19:01	9°♄59'31		direct	-72 Aug 25 j 08:29	17°♄45'44	
evening set	-78 Sep 28 j 13:41	17°♄14'34		evening set	-72 Dec 03 j 10:12	24°♄44'48	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 28

Attention, astronomical year style is used: The year -72 in astronomical counting style is the year 73 BCE in historical counting style.

conjunction	-72 Dec 20 j 01:01	26° $\mathring{A}$ 42'08	0°21'28	direct	-66 Nov 05 j 14:23	29° $\approx$ 59'04	
minimum elong	-72 Dec 20 j 01:01	26° $\mathring{A}$ 42'09	0°21'28		-66 Nov 09 j 17:03	0° $\mathring{K}$	
max. Earth dist.	-72 Dec 19 j 18:14	26° $\mathring{A}$ 40'08	11.00630 AU	evening set	-65 Feb 14 j 00:55	7° $\mathring{K}$ 34'25	
morning rise	-71 Jan 05 j 17:14	28° $\mathring{A}$ 39'58					
	-71 Jan 17 j 10:50	0° $\mathring{Z}$		conjunction	-65 Mar 03 j 05:22	9° $\mathring{K}$ 43'57	-2°-4'-54
retrograde	-71 Apr 18 j 02:17	5° $\mathring{Z}$ 49'00		minimum elong	-65 Mar 03 j 05:20	9° $\mathring{K}$ 43'56	2°04'55
opposition	-71 Jun 28 j 01:32	2° $\mathring{Z}$ 29'04	0°09'04	max. Earth dist.	-65 Mar 03 j 01:58	9° $\mathring{K}$ 42'52	10.36539 AU
min. Earth dist.	-71 Jun 28 j 07:14	2° $\mathring{Z}$ 28'01	8.97049 AU	morning rise	-65 Mar 20 j 14:50	11° $\mathring{K}$ 55'03	
	-71 Aug 04 j 23:37	30° $\mathring{R}$ $\mathring{A}$		retrograde	-65 Jul 05 j 13:41	19° $\mathring{K}$ 59'13	
direct	-71 Sep 06 j 02:31	29° $\mathring{A}$ 10'47		opposition	-65 Sep 12 j 18:39	16° $\mathring{K}$ 31'20	-2°-42'-34
desc. node	-71 Oct 05 j 14:26	29° $\mathring{A}$ 54'04		min. Earth dist.	-65 Sep 12 j 20:22	16° $\mathring{K}$ 30'59	8.30691 AU
	-71 Oct 07 j 14:09	0° $\mathring{Z}$		direct	-65 Nov 18 j 16:51	13° $\mathring{K}$ 08'12	
evening set	-71 Dec 14 j 21:26	6° $\mathring{Z}$ 12'23		evening set	-64 Feb 27 j 17:30	20° $\mathring{K}$ 52'58	
conjunction	-71 Dec 31 j 13:33	8° $\mathring{Z}$ 11'02	0°-6'-33	conjunction	-64 Mar 16 j 01:51	23° $\mathring{K}$ 05'15	-2°-15'-14
minimum elong	-71 Dec 31 j 13:32	8° $\mathring{Z}$ 11'02	0°06'34	minimum elong	-64 Mar 16 j 01:50	23° $\mathring{K}$ 05'15	2°15'15
behind sun begin	-71 Dec 31 j 06:58	8° $\mathring{Z}$ 09'06		max. Earth dist.	-64 Mar 15 j 23:55	23° $\mathring{K}$ 04'38	10.24857 AU
behind sun end	-71 Dec 31 j 20:07	8° $\mathring{Z}$ 12'59		morning rise	-64 Apr 02 j 15:09	25° $\mathring{K}$ 19'06	
max. Earth dist.	-71 Dec 31 j 06:00	8° $\mathring{Z}$ 08'48	10.93041 AU		-64 May 13 j 16:24	0° $\mathring{Y}$	
morning rise	-70 Jan 17 j 08:08	10° $\mathring{Z}$ 10'28		retrograde	-64 Jul 18 j 21:40	3° $\mathring{Y}$ 32'09	
retrograde	-70 Apr 30 j 11:50	17° $\mathring{Z}$ 26'37		opposition	-64 Sep 25 j 14:48	0° $\mathring{Y}$ 03'12	-2°-51'-21
opposition	-70 Jul 10 j 10:40	14° $\mathring{Z}$ 05'32	0°-25'-29	min. Earth dist.	-64 Sep 25 j 15:25	0° $\mathring{Y}$ 03'04	8.19607 AU
min. Earth dist.	-70 Jul 10 j 16:46	14° $\mathring{Z}$ 04'23	8.88518 AU		-64 Sep 26 j 06:39	30° $\mathring{R}$ $\mathring{K}$	
direct	-70 Sep 17 j 23:16	10° $\mathring{Z}$ 46'58		direct	-64 Dec 01 j 05:06	26° $\mathring{K}$ 38'46	
evening set	-70 Dec 26 j 14:30	17° $\mathring{Z}$ 52'42			-63 Feb 01 j 10:16	0° $\mathring{Y}$	
				evening set	-63 Mar 12 j 21:11	4° $\mathring{Y}$ 32'52	
conjunction	-69 Jan 12 j 08:20	19° $\mathring{Z}$ 53'00	0°-34'-39	conjunction	-63 Mar 30 j 09:58	6° $\mathring{Y}$ 47'54	-2°-18'-15
minimum elong	-69 Jan 12 j 08:18	19° $\mathring{Z}$ 53'00	0°34'40	minimum elong	-63 Mar 30 j 09:58	6° $\mathring{Y}$ 47'54	2°18'16
max. Earth dist.	-69 Jan 12 j 01:12	19° $\mathring{Z}$ 50'52	10.83673 AU	max. Earth dist.	-63 Mar 30 j 10:24	6° $\mathring{Y}$ 48'03	10.14495 AU
morning rise	-69 Jan 29 j 05:25	21° $\mathring{Z}$ 54'18		morning rise	-63 Apr 17 j 03:12	9° $\mathring{Y}$ 04'24	
retrograde	-69 May 13 j 05:02	29° $\mathring{Z}$ 18'52		retrograde	-63 Aug 02 j 11:17	17° $\mathring{Y}$ 24'22	
opposition	-69 Jul 23 j 00:22	25° $\mathring{Z}$ 56'29	0°-59'-45	opposition	-63 Oct 09 j 16:03	13° $\mathring{Y}$ 54'37	-2°-50'-29
min. Earth dist.	-69 Jul 23 j 05:55	25° $\mathring{Z}$ 55'26	8.78395 AU	min. Earth dist.	-63 Oct 09 j 14:53	13° $\mathring{Y}$ 54'52	8.10199 AU
direct	-69 Sep 30 j 01:38	22° $\mathring{Z}$ 37'23		direct	-63 Dec 15 j 00:54	10° $\mathring{Y}$ 28'54	
evening set	-68 Jan 07 j 14:51	29° $\mathring{Z}$ 48'45		evening set	-62 Mar 27 j 10:49	18° $\mathring{Y}$ 31'27	
	-68 Jan 09 j 04:32	0° $\approx$					
conjunction	-68 Jan 24 j 10:51	1° $\approx$ 51'01	-1°-1'-51	conjunction	-62 Apr 14 j 04:12	20° $\mathring{Y}$ 49'04	-2°-13'-16
minimum elong	-68 Jan 24 j 10:48	1° $\approx$ 51'00	1°01'53	minimum elong	-62 Apr 14 j 04:14	20° $\mathring{Y}$ 49'05	2°13'16
max. Earth dist.	-68 Jan 24 j 05:11	1° $\approx$ 49'17	10.72883 AU	max. Earth dist.	-62 Apr 14 j 07:07	20° $\mathring{Y}$ 50'01	10.06168 AU
morning rise	-68 Feb 10 j 10:32	3° $\approx$ 54'27		morning rise	-62 May 02 j 01:18	23° $\mathring{Y}$ 07'55	
retrograde	-68 May 25 j 07:09	11° $\approx$ 28'28			-62 Jul 06 j 09:21	0° $\mathring{B}$	
opposition	-68 Aug 03 j 19:42	8° $\approx$ 04'40	-1°-32'-14	retrograde	-62 Aug 17 j 04:49	1° $\mathring{B}$ 32'10	
min. Earth dist.	-68 Aug 03 j 23:52	8° $\approx$ 03'53	8.67078 AU		-62 Sep 28 j 11:28	30° $\mathring{R}$ $\mathring{Y}$	
direct	-68 Oct 11 j 07:25	4° $\approx$ 44'52		opposition	-62 Oct 23 j 21:27	28° $\mathring{Y}$ 01'58	-2°-39'-23
evening set	-67 Jan 18 j 23:56	12° $\approx$ 03'10		min. Earth dist.	-62 Oct 23 j 18:18	28° $\mathring{Y}$ 02'37	8.03114 AU
				direct	-62 Dec 29 j 03:01	24° $\mathring{Y}$ 35'01	
conjunction	-67 Feb 04 j 22:22	14° $\approx$ 07'38	-1°-26'-52		-61 Mar 20 j 02:11	0° $\mathring{B}$	
minimum elong	-67 Feb 04 j 22:20	14° $\approx$ 07'37	1°26'53	evening set	-61 Apr 11 j 08:30	2° $\mathring{B}$ 44'29	
max. Earth dist.	-67 Feb 04 j 18:02	14° $\approx$ 06'18	10.61103 AU				
	-67 Feb 12 j 00:13	15° $\approx$		conjunction	-61 Apr 29 j 06:16	5° $\mathring{B}$ 04'15	-2°00'-9
morning rise	-67 Feb 22 j 00:59	16° $\approx$ 13'27		minimum elong	-61 Apr 29 j 06:19	5° $\mathring{B}$ 04'16	2°00'09
retrograde	-67 Jun 07 j 17:05	23° $\approx$ 57'34		max. Earth dist.	-61 Apr 29 j 11:20	5° $\mathring{B}$ 05'54	10.00460 AU
opposition	-67 Aug 16 j 21:03	20° $\approx$ 32'19	-2°-1'-21	morning rise	-61 May 17 j 06:49	7° $\mathring{B}$ 24'56	
min. Earth dist.	-67 Aug 16 j 23:52	20° $\approx$ 31'46	8.55021 AU		-61 Aug 01 j 13:46	15° $\mathring{B}$	
direct	-67 Oct 23 j 19:29	17° $\approx$ 11'35		retrograde	-61 Sep 01 j 00:17	15° $\mathring{B}$ 50'24	
evening set	-66 Jan 31 j 19:07	24° $\approx$ 37'58			-61 Oct 01 j 12:54	15° $\mathring{R}$ $\mathring{B}$	
				opposition	-61 Nov 07 j 05:20	12° $\mathring{B}$ 20'07	-2°-18'-17
conjunction	-66 Feb 17 j 20:19	26° $\approx$ 44'53	-1°-48'-20	min. Earth dist.	-61 Nov 07 j 00:41	12° $\mathring{B}$ 21'05	7.98847 AU
minimum elong	-66 Feb 17 j 20:16	26° $\approx$ 44'52	1°48'21	direct	-60 Jan 12 j 10:40	8° $\mathring{B}$ 52'03	
max. Earth dist.	-66 Feb 17 j 16:20	26° $\approx$ 43'38	10.48818 AU		-60 Apr 08 j 15:00	15° $\mathring{B}$	
morning rise	-66 Mar 07 j 02:12	28° $\approx$ 53'16		evening set	-60 Apr 25 j 12:05	17° $\mathring{B}$ 06'28	
	-66 Mar 16 j 07:34	0° $\mathring{K}$					
retrograde	-66 Jun 21 j 11:20	6° $\mathring{K}$ 47'35		conjunction	-60 May 13 j 13:36	19° $\mathring{B}$ 27'42	-1°-39'-30
opposition	-66 Aug 30 j 04:36	3° $\mathring{K}$ 20'57	-2°-25'-23	minimum elong	-60 May 13 j 13:40	19° $\mathring{B}$ 27'43	1°39'30
min. Earth dist.	-66 Aug 30 j 06:52	3° $\mathring{K}$ 20'30	8.42714 AU	max. Earth dist.	-60 May 13 j 20:16	19° $\mathring{B}$ 29'53	9.97768 AU
	-66 Nov 01 j 11:23	30° $\mathring{R}$ $\approx$		morning rise	-60 May 31 j 16:49	21° $\mathring{B}$ 49'30	

Attention, astronomical year style is used: The year -60 in astronomical counting style is the year 61 BCE in historical counting style.

	-60 Aug 30 j 12:56	0°♊			-54 Aug 24 j 21:01	15°♎	
retrograde	-60 Sep 14 j 18:09	0°♊12'55		morning rise	-54 Aug 26 j 20:45	15°♎14'39	
	-60 Sep 29 j 21:27	30°♋		retrograde	-54 Dec 05 j 10:45	22°♎47'28	
opposition	-60 Nov 20 j 13:44	26°♋42'59	-1°-48'-23	opposition	-53 Feb 10 j 15:01	19°♎25'00	1°58'42
min. Earth dist.	-60 Nov 20 j 08:15	26°♋44'07	7.97695 AU	min. Earth dist.	-53 Feb 10 j 10:18	19°♎25'57	8.46135 AU
direct	-59 Jan 26 j 00:10	23°♋14'00		direct	-53 Apr 21 j 04:30	15°♎57'11	
	-59 Apr 28 j 17:17	0°♊		evening set	-53 Aug 05 j 06:33	23°♎46'44	
evening set	-59 May 10 j 18:37	1°♊31'02					
				conjunction	-53 Aug 22 j 18:35	25°♎55'41	1°46'53
conjunction	-59 May 28 j 22:43	3°♊52'53	-1°-12'-36	minimum elong	-53 Aug 22 j 18:32	25°♎55'40	1°46'52
minimum elong	-59 May 28 j 22:47	3°♊52'54	1°12'37	max. Earth dist.	-53 Aug 22 j 23:34	25°♎57'13	10.52404 AU
max. Earth dist.	-59 May 29 j 06:11	3°♊55'20	9.98261 AU	morning rise	-53 Sep 09 j 01:35	28°♎03'06	
morning rise	-59 Jun 16 j 03:19	6°♊14'53			-53 Sep 25 j 15:41	0°♎	
retrograde	-59 Sep 29 j 06:55	14°♊33'20		retrograde	-53 Dec 18 j 02:34	5°♎26'56	
opposition	-59 Dec 04 j 21:02	11°♊04'08	-1°-11'-45	opposition	-52 Feb 23 j 15:22	2°♎05'57	2°22'51
min. Earth dist.	-59 Dec 04 j 15:19	11°♊05'19	7.99721 AU	min. Earth dist.	-52 Feb 23 j 12:14	2°♎06'34	8.58741 AU
direct	-58 Feb 09 j 16:13	7°♊34'31			-52 Mar 23 j 14:52	30°♋	
evening set	-58 May 26 j 00:46	15°♊51'41		direct	-52 May 03 j 16:36	28°♎39'19	
					-52 Jun 13 j 09:06	0°♎	
conjunction	-58 Jun 13 j 05:51	18°♊13'10	0°-41'-20	evening set	-52 Aug 17 j 11:22	6°♎20'38	
minimum elong	-58 Jun 13 j 05:53	18°♊13'11	0°41'20				
max. Earth dist.	-58 Jun 13 j 13:35	18°♊15'41	10.01876 AU	conjunction	-52 Sep 03 j 18:02	8°♎26'27	2°03'46
morning rise	-58 Jul 01 j 10:08	20°♊34'22		minimum elong	-52 Sep 03 j 17:59	8°♎26'26	2°03'45
retrograde	-58 Oct 13 j 13:15	28°♊45'32		max. Earth dist.	-52 Sep 03 j 20:46	8°♎27'17	10.64862 AU
opposition	-58 Dec 19 j 01:23	25°♊17'23	0°-31'-1	morning rise	-52 Sep 20 j 19:53	10°♎30'48	
min. Earth dist.	-58 Dec 18 j 19:25	25°♊18'37	8.04771 AU	retrograde	-52 Dec 29 j 09:28	17°♎46'38	
direct	-57 Feb 24 j 08:10	21°♊47'28		opposition	-51 Mar 07 j 09:51	14°♎26'59	2°39'37
	-57 Jun 09 j 20:01	0°♋		min. Earth dist.	-51 Mar 07 j 07:59	14°♎27'20	8.70997 AU
evening set	-57 Jun 10 j 03:33	0°♋02'23		direct	-51 May 16 j 22:40	11°♎01'40	
				evening set	-51 Aug 30 j 05:33	18°♎34'47	
conjunction	-57 Jun 28 j 07:55	2°♋22'34	0°-7'-56				
minimum elong	-57 Jun 28 j 07:55	2°♋22'34	0°07'56	conjunction	-51 Sep 16 j 07:21	20°♎37'45	2°14'36
behind sun begin	-57 Jun 28 j 01:22	2°♋20'29		minimum elong	-51 Sep 16 j 07:20	20°♎37'44	2°14'36
behind sun end	-57 Jun 28 j 14:28	2°♋24'40		max. Earth dist.	-51 Sep 16 j 08:18	20°♎38'02	10.76697 AU
max. Earth dist.	-57 Jun 28 j 15:42	2°♋25'04	10.08351 AU	morning rise	-51 Oct 03 j 04:39	22°♎39'22	
morning rise	-57 Jul 16 j 10:12	4°♋42'03		retrograde	-50 Jan 10 j 12:01	29°♎48'25	
asc. node	-57 Sep 25 j 06:01	11°♋46'45		opposition	-50 Mar 19 j 23:11	26°♎29'52	2°48'52
retrograde	-57 Oct 27 j 12:21	12°♋44'18		min. Earth dist.	-50 Mar 19 j 21:54	26°♎30'07	8.82357 AU
opposition	-56 Jan 02 j 01:17	9°♋17'24	0°10'53	direct	-50 May 29 j 21:31	23°♎05'57	
min. Earth dist.	-56 Jan 01 j 19:01	9°♋18'41	8.12492 AU		-50 Sep 07 j 02:42	0°♌	
direct	-56 Mar 09 j 21:01	5°♋47'32		evening set	-50 Sep 11 j 13:47	0°♌31'09	
evening set	-56 Jun 24 j 00:12	13°♋58'08					
				conjunction	-50 Sep 28 j 11:32	2°♌31'41	2°19'20
conjunction	-56 Jul 12 j 02:12	16°♋16'12	0°25'30	minimum elong	-50 Sep 28 j 11:31	2°♌31'41	2°19'20
minimum elong	-56 Jul 12 j 02:10	16°♋16'12	0°25'30	max. Earth dist.	-50 Sep 28 j 11:47	2°♌31'46	10.87398 AU
max. Earth dist.	-56 Jul 12 j 09:50	16°♋18'38	10.17235 AU	morning rise	-50 Oct 15 j 05:00	4°♌31'00	
morning rise	-56 Jul 30 j 00:56	18°♋33'11		retrograde	-49 Jan 22 j 11:09	11°♌34'32	
retrograde	-56 Nov 09 j 04:28	26°♋25'39		opposition	-49 Apr 01 j 08:00	8°♌16'52	2°50'44
opposition	-55 Jan 14 j 19:54	23°♋00'10	0°51'17	min. Earth dist.	-49 Apr 01 j 07:56	8°♌16'53	8.92340 AU
min. Earth dist.	-55 Jan 14 j 13:30	23°♋01'28	8.22367 AU	direct	-49 Jun 11 j 11:43	4°♌54'19	
direct	-55 Mar 24 j 05:41	19°♋30'41		evening set	-49 Sep 23 j 13:40	12°♌12'15	
evening set	-55 Jul 08 j 12:32	27°♋35'19					
				conjunction	-49 Oct 10 j 08:04	14°♌10'49	2°18'10
conjunction	-55 Jul 26 j 10:41	29°♋50'38	0°56'46	minimum elong	-49 Oct 10 j 08:05	14°♌10'49	2°18'10
minimum elong	-55 Jul 26 j 10:38	29°♋50'37	0°56'46	max. Earth dist.	-49 Oct 10 j 07:04	14°♌10'31	10.96529 AU
max. Earth dist.	-55 Jul 26 j 18:01	29°♋52'57	10.27954 AU	morning rise	-49 Oct 26 j 22:39	16°♌08'20	
	-55 Jul 27 j 16:15	0°♍		retrograde	-48 Feb 03 j 05:01	23°♌07'39	
morning rise	-55 Aug 13 j 04:35	2°♍04'36		opposition	-48 Apr 12 j 13:06	19°♌50'40	2°45'37
retrograde	-55 Nov 22 j 11:41	9°♍47'04		min. Earth dist.	-48 Apr 12 j 14:56	19°♌50'19	9.00560 AU
opposition	-54 Jan 28 j 08:33	6°♍23'06	1°27'48	direct	-48 Jun 22 j 20:16	16°♌29'21	
min. Earth dist.	-54 Jan 28 j 02:31	6°♍24'18	8.33792 AU	evening set	-48 Oct 04 j 06:28	23°♌40'54	
direct	-54 Apr 07 j 08:40	2°♍54'19					
evening set	-54 Jul 20 j 14:57	10°♍51'47		conjunction	-48 Oct 20 j 22:14	25°♌37'58	2°11'27
				minimum elong	-48 Oct 20 j 22:15	25°♌37'59	2°11'27
conjunction	-54 Aug 09 j 08:17	13°♍03'57	1°24'18	max. Earth dist.	-48 Oct 20 j 19:04	25°♌37'02	11.03750 AU
minimum elong	-54 Aug 09 j 08:14	13°♍03'56	1°24'17	morning rise	-48 Nov 06 j 11:03	27°♌34'13	
max. Earth dist.	-54 Aug 09 j 14:59	13°♍06'03	10.39891 AU		-48 Nov 28 j 11:13	0°♎	

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 30

Attention, astronomical year style is used: The year -47 in astronomical counting style is the year 48 BCE in historical counting style.

retrograde	-47 Feb 13 j 21:10	4°♄30'47		behind sun begin	-42 Dec 26 j 10:45	3°♄10'09	
opposition	-47 Apr 24 j 15:34	1°♄14'09	2°34'04	behind sun end	-42 Dec 26 j 23:57	3°♄14'02	
min. Earth dist.	-47 Apr 24 j 19:08	1°♄13'29	9.06712 AU	max. Earth dist.	-42 Dec 26 j 09:00	3°♄09'38	10.96781 AU
	-47 May 11 j 18:46	30°♄		morning rise	-41 Jan 12 j 10:47	5°♄10'47	
direct	-47 Jul 05 j 00:32	27°♄53'56		desc. node	-41 Mar 20 j 22:59	11°♄23'59	
	-47 Aug 26 j 08:16	0°♄		retrograde	-41 Apr 25 j 05:11	12°♄23'42	
evening set	-47 Oct 15 j 17:27	5°♄00'07		opposition	-41 Jul 05 j 04:30	9°♄03'15	0°-9'-43
				min. Earth dist.	-41 Jul 05 j 11:20	9°♄01'59	8.92390 AU
conjunction	-47 Nov 01 j 07:29	6°♄56'11	1°59'40	direct	-41 Sep 12 j 23:50	5°♄44'51	
minimum elong	-47 Nov 01 j 07:31	6°♄56'12	1°59'39	evening set	-41 Dec 21 j 16:05	12°♄48'49	
max. Earth dist.	-47 Nov 01 j 02:35	6°♄54'45	11.08790 AU				
morning rise	-47 Nov 17 j 19:28	8°♄51'40		conjunction	-40 Jan 07 j 09:13	14°♄48'25	0°-21'-54
	-46 Jan 25 j 13:55	15°♄		minimum elong	-40 Jan 07 j 09:13	14°♄48'25	0°21'56
retrograde	-46 Feb 25 j 11:42	15°♄46'59		max. Earth dist.	-40 Jan 07 j 01:18	14°♄46'03	10.87630 AU
	-46 Mar 29 j 01:51	15°♄		morning rise	-40 Jan 24 j 04:59	16°♄48'52	
opposition	-46 May 06 j 16:07	12°♄30'24	2°16'44	retrograde	-40 May 06 j 20:27	24°♄09'48	
min. Earth dist.	-46 May 06 j 20:23	12°♄29'37	9.10548 AU	opposition	-40 Jul 16 j 16:19	20°♄47'53	0°-44'-18
direct	-46 Jul 17 j 00:14	9°♄11'06		min. Earth dist.	-40 Jul 16 j 22:35	20°♄46'42	8.82394 AU
	-46 Oct 16 j 04:37	15°♄		direct	-40 Sep 23 j 23:29	17°♄28'52	
evening set	-46 Oct 27 j 00:34	16°♄13'08		evening set	-39 Jan 01 j 13:08	24°♄37'51	
conjunction	-46 Nov 12 j 13:50	18°♄08'43	1°43'21	conjunction	-39 Jan 18 j 08:04	26°♄39'19	0°-49'-40
minimum elong	-46 Nov 12 j 13:52	18°♄08'43	1°43'20	minimum elong	-39 Jan 18 j 08:02	26°♄39'18	0°49'42
max. Earth dist.	-46 Nov 12 j 08:19	18°♄07'06	11.11419 AU	max. Earth dist.	-39 Jan 18 j 00:04	26°♄36'53	10.76899 AU
morning rise	-46 Nov 29 j 01:37	20°♄03'55		morning rise	-39 Feb 04 j 06:34	28°♄41'53	
retrograde	-45 Mar 09 j 05:06	26°♄59'32			-39 Feb 15 j 10:25	0°≈	
opposition	-45 May 18 j 15:37	23°♄42'43	1°54'18	retrograde	-39 May 19 j 18:39	6°≈11'54	
min. Earth dist.	-45 May 18 j 20:38	23°♄41'48	9.11868 AU	opposition	-39 Jul 29 j 09:17	2°≈48'26	-1°-17'-49
direct	-45 Jul 28 j 21:32	20°♄24'07		min. Earth dist.	-39 Jul 29 j 15:18	2°≈47'17	8.71043 AU
evening set	-45 Nov 07 j 05:35	27°♄23'25			-39 Sep 11 j 06:06	30°♄	
				direct	-39 Oct 06 j 02:07	29°♄28'34	
conjunction	-45 Nov 23 j 18:39	29°♄19'00	1°23'08		-39 Oct 30 j 15:58	0°≈	
minimum elong	-45 Nov 23 j 18:42	29°♄19'00	1°23'08	evening set	-38 Jan 13 j 18:13	6°≈44'05	
max. Earth dist.	-45 Nov 23 j 12:08	29°♄17'05	11.11475 AU				
	-45 Nov 29 j 14:35	0°♄		conjunction	-38 Jan 30 j 15:26	8°≈47'41	-1°-15'-51
morning rise	-45 Dec 10 j 06:59	1°♄14'26		minimum elong	-38 Jan 30 j 15:23	8°≈47'40	1°15'53
retrograde	-44 Mar 19 j 23:09	8°♄11'58		max. Earth dist.	-38 Jan 30 j 08:06	8°≈45'25	10.65017 AU
opposition	-44 May 29 j 15:43	4°♄54'40	1°27'33	morning rise	-38 Feb 16 j 16:53	10°≈52'34	
min. Earth dist.	-44 May 29 j 22:02	4°♄53'30	9.10581 AU		-38 Mar 26 j 03:12	15°≈	
direct	-44 Aug 08 j 14:22	1°♄36'32		retrograde	-38 Jun 01 j 23:04	18°≈32'36	
evening set	-44 Nov 17 j 10:14	8°♄34'40		opposition	-38 Aug 11 j 08:05	15°≈07'31	-1°-48'-43
				min. Earth dist.	-38 Aug 11 j 13:24	15°≈06'30	8.58795 AU
conjunction	-44 Dec 03 j 23:33	10°♄30'38	0°59'42		-38 Aug 12 j 23:06	15°≈	
minimum elong	-44 Dec 03 j 23:35	10°♄30'39	0°59'43	direct	-38 Oct 18 j 12:57	11°≈46'39	
max. Earth dist.	-44 Dec 03 j 15:09	10°♄28'10	11.08948 AU		-38 Dec 19 j 19:32	15°≈	
morning rise	-44 Dec 20 j 13:13	12°♄26'46		evening set	-37 Jan 26 j 08:44	19°≈09'57	
retrograde	-44 Mar 31 j 19:37	19°♄27'56					
opposition	-43 Jun 10 j 17:20	16°♄09'51	0°57'19	conjunction	-37 Feb 12 j 08:40	21°≈15'57	-1°-39'-8
min. Earth dist.	-43 Jun 11 j 00:54	16°♄08'27	9.06770 AU	minimum elong	-37 Feb 12 j 08:37	21°≈15'56	1°39'10
direct	-43 Aug 20 j 08:13	12°♄51'53		max. Earth dist.	-37 Feb 12 j 03:20	21°≈14'17	10.52472 AU
evening set	-43 Nov 28 j 16:26	19°♄50'25		morning rise	-37 Mar 01 j 13:08	23°≈23'22	
					-37 May 07 j 23:25	0°♄	
conjunction	-43 Dec 15 j 06:36	21°♄47'15	0°33'49	retrograde	-37 Jun 15 j 13:24	1°♄13'50	
minimum elong	-43 Dec 15 j 06:37	21°♄47'15	0°33'50		-37 Jul 24 j 17:07	30°≈	
max. Earth dist.	-43 Dec 14 j 21:35	21°♄44'35	11.03980 AU	opposition	-37 Aug 24 j 13:06	27°≈47'12	-2°-15'-19
morning rise	-43 Dec 31 j 22:03	23°♄44'28		min. Earth dist.	-37 Aug 24 j 16:44	27°≈46'30	8.46176 AU
	-42 Mar 11 j 09:45	0°♄		direct	-37 Oct 31 j 05:56	24°≈25'12	
retrograde	-42 Apr 12 j 21:50	0°♄50'46			-36 Jan 23 j 02:10	0°♄	
	-42 May 16 j 00:16	30°♄		evening set	-36 Feb 08 j 09:45	1°♄57'15	
opposition	-42 Jun 22 j 21:10	27°♄31'38	0°24'33				
min. Earth dist.	-42 Jun 23 j 04:50	27°♄30'13	9.00624 AU	conjunction	-36 Feb 25 j 12:52	4°♄05'51	-1°-58'-7
direct	-42 Sep 01 j 03:30	24°♄13'34		minimum elong	-36 Feb 25 j 12:49	4°♄05'50	1°58'08
	-42 Nov 29 j 06:33	0°♄		max. Earth dist.	-36 Feb 25 j 09:40	4°♄04'50	10.39841 AU
evening set	-42 Dec 10 j 01:47	1°♄14'03		morning rise	-36 Mar 13 j 20:38	6°♄15'58	
				retrograde	-36 Jun 28 j 13:16	14°♄16'44	
conjunction	-42 Dec 26 j 17:20	3°♄12'05	0°06'21	opposition	-36 Sep 06 j 00:40	10°♄48'40	-2°-35'-52
minimum elong	-42 Dec 26 j 17:21	3°♄12'06	0°06'21	min. Earth dist.	-36 Sep 06 j 02:14	10°♄48'21	8.33787 AU

## Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 31

Attention, astronomical year style is used: The year -36 in astronomical counting style is the year 37 BCE in historical counting style.

direct	-36 Nov 12 j 04:41	7° <del>✕</del> 25'27		conjunction	-29 Jun 06 j 21:11	12° <del>Π</del> 08'48	0°-55'-32
evening set	-35 Feb 20 j 21:49	15° <del>✕</del> 06'49		minimum elong	-29 Jun 06 j 21:14	12° <del>Π</del> 08'49	0°55'32
				max. Earth dist.	-29 Jun 07 j 07:08	12° <del>Π</del> 12'04	9.99745 AU
conjunction	-35 Mar 10 j 04:33	17° <del>✕</del> 18'08	-2°-11'-27	morning rise	-29 Jun 25 j 01:47	14° <del>Π</del> 30'33	
minimum elong	-35 Mar 10 j 04:31	17° <del>✕</del> 18'08	2°11'28	retrograde	-29 Oct 07 j 16:31	22° <del>Π</del> 45'41	
max. Earth dist.	-35 Mar 10 j 03:07	17° <del>✕</del> 17'41	10.27758 AU	opposition	-29 Dec 13 j 05:29	19° <del>Π</del> 17'13	0°-49'-17
morning rise	-35 Mar 27 j 16:02	19° <del>✕</del> 31'01		min. Earth dist.	-29 Dec 12 j 21:37	19° <del>Π</del> 18'51	8.02241 AU
retrograde	-35 Jul 12 j 19:53	27° <del>✕</del> 41'12		direct	-28 Feb 18 j 05:39	15° <del>Π</del> 47'45	
opposition	-35 Sep 19 j 18:32	24° <del>✕</del> 11'57	-2°-48'-39	evening set	-28 Jun 02 j 21:35	24° <del>Π</del> 04'11	
min. Earth dist.	-35 Sep 19 j 18:26	24° <del>✕</del> 11'58	8.22262 AU				
direct	-35 Nov 25 j 12:14	20° <del>✕</del> 47'28		conjunction	-28 Jun 21 j 02:39	26° <del>Π</del> 25'07	0°-22'-44
evening set	-34 Mar 06 j 21:05	28° <del>✕</del> 38'14		minimum elong	-28 Jun 21 j 02:40	26° <del>Π</del> 25'07	0°22'44
	-34 Mar 17 j 13:26	0° <del>Υ</del>		max. Earth dist.	-28 Jun 21 j 13:04	26° <del>Π</del> 28'30	10.05446 AU
				morning rise	-28 Jul 09 j 05:56	28° <del>Π</del> 45'29	
conjunction	-34 Mar 24 j 07:51	0° <del>Υ</del> 52'19	-2°-17'-54		-28 Jul 19 j 04:06	0° <del>☾</del>	
minimum elong	-34 Mar 24 j 07:51	0° <del>Υ</del> 52'19	2°17'54	retrograde	-28 Oct 20 j 21:03	6° <del>☾</del> 52'08	
max. Earth dist.	-34 Mar 24 j 07:52	0° <del>Υ</del> 52'19	10.16875 AU	opposition	-28 Dec 26 j 08:01	3° <del>☾</del> 25'01	0°-7'-28
morning rise	-34 Apr 10 j 23:18	3° <del>Υ</del> 07'54		min. Earth dist.	-28 Dec 26 j 00:25	3° <del>☾</del> 26'34	8.09273 AU
retrograde	-34 Jul 27 j 08:01	11° <del>Υ</del> 25'52			-27 Feb 22 j 20:13	30° <del>♊</del>	
opposition	-34 Oct 03 j 18:02	7° <del>Υ</del> 55'45	-2°-52'-14	direct	-27 Mar 03 j 19:31	29° <del>Π</del> 55'33	
min. Earth dist.	-34 Oct 03 j 16:40	7° <del>Υ</del> 56'02	8.12252 AU	asc. node	-27 Mar 03 j 20:43	29° <del>Π</del> 55'33	
direct	-34 Dec 09 j 04:19	4° <del>Υ</del> 30'00			-27 Mar 12 j 20:26	0° <del>☾</del>	
evening set	-33 Mar 21 j 06:41	12° <del>Υ</del> 29'37		evening set	-27 Jun 17 j 22:02	8° <del>☾</del> 08'24	
conjunction	-33 Apr 07 j 21:52	14° <del>Υ</del> 46'19	-2°-16'-33	conjunction	-27 Jul 06 j 01:18	10° <del>☾</del> 27'29	0°11'01
minimum elong	-33 Apr 07 j 21:53	14° <del>Υ</del> 46'20	2°16'33	minimum elong	-27 Jul 06 j 01:17	10° <del>☾</del> 27'29	0°11'01
max. Earth dist.	-33 Apr 07 j 23:38	14° <del>Υ</del> 46'54	10.07850 AU	behind sun begin	-27 Jul 05 j 19:51	10° <del>☾</del> 25'46	
morning rise	-33 Apr 25 j 17:23	17° <del>Υ</del> 04'24		behind sun end	-27 Jul 06 j 06:43	10° <del>☾</del> 29'13	
retrograde	-33 Aug 11 j 00:46	25° <del>Υ</del> 27'49		max. Earth dist.	-27 Jul 06 j 10:58	10° <del>☾</del> 30'35	10.13746 AU
opposition	-33 Oct 17 j 22:17	21° <del>Υ</del> 57'13	-2°-45'-43	morning rise	-27 Jul 24 j 01:37	12° <del>☾</del> 45'37	
min. Earth dist.	-33 Oct 17 j 19:44	21° <del>Υ</del> 57'44	8.04386 AU	retrograde	-27 Nov 03 j 17:43	20° <del>☾</del> 42'33	
direct	-33 Dec 23 j 04:02	18° <del>Υ</del> 30'18		opposition	-26 Jan 09 j 05:37	17° <del>☾</del> 16'55	0°33'55
evening set	-32 Apr 04 j 01:12	26° <del>Υ</del> 37'31		min. Earth dist.	-26 Jan 08 j 22:52	17° <del>☾</del> 18'18	8.18648 AU
				direct	-26 Mar 18 j 07:02	13° <del>☾</del> 47'45	
conjunction	-32 Apr 21 j 20:57	28° <del>Υ</del> 56'33	-2°-7'-1	evening set	-26 Jul 02 j 14:38	21° <del>☾</del> 55'07	
minimum elong	-32 Apr 21 j 21:00	28° <del>Υ</del> 56'34	2°07'01				
max. Earth dist.	-32 Apr 22 j 01:02	28° <del>Υ</del> 57'53	10.01270 AU	conjunction	-26 Jul 20 j 14:29	24° <del>☾</del> 11'37	0°43'26
	-32 Apr 29 j 23:07	0° <del>♄</del>		minimum elong	-26 Jul 20 j 14:27	24° <del>☾</del> 11'37	0°43'26
morning rise	-32 May 09 j 20:16	1° <del>♄</del> 16'43		max. Earth dist.	-26 Jul 20 j 22:34	24° <del>☾</del> 14'12	10.24043 AU
retrograde	-32 Aug 24 j 19:42	9° <del>♄</del> 42'40		morning rise	-26 Aug 07 j 10:36	26° <del>☾</del> 26'54	
opposition	-32 Oct 31 j 05:43	6° <del>♄</del> 11'59	-2°-28'-55		-26 Sep 06 j 20:19	0° <del>♊</del>	
min. Earth dist.	-32 Oct 31 j 01:41	6° <del>♄</del> 12'49	7.99185 AU	retrograde	-26 Nov 17 j 03:33	4° <del>♊</del> 13'41	
direct	-31 Jan 05 j 10:48	2° <del>♄</del> 44'04		opposition	-25 Jan 22 j 21:15	0° <del>♊</del> 49'35	1°12'22
evening set	-31 Apr 19 j 02:56	10° <del>♄</del> 57'07		min. Earth dist.	-25 Jan 22 j 15:39	0° <del>♊</del> 50'43	8.29688 AU
					-25 Feb 02 j 05:54	30° <del>♊</del>	
conjunction	-31 May 07 j 02:54	13° <del>♄</del> 17'56	-1°-49'-33	direct	-25 Apr 01 j 14:20	27° <del>☾</del> 20'59	
minimum elong	-31 May 07 j 02:57	13° <del>♄</del> 17'57	1°49'34		-25 May 28 j 11:48	0° <del>♊</del>	
max. Earth dist.	-31 May 07 j 09:14	13° <del>♄</del> 20'01	9.97583 AU	evening set	-25 Jul 16 j 21:50	5° <del>♊</del> 21'36	
	-31 May 20 j 02:58	15° <del>♄</del>					
morning rise	-31 May 25 j 05:16	15° <del>♄</del> 39'31		conjunction	-25 Aug 03 j 17:13	7° <del>♊</del> 35'04	1°12'46
retrograde	-31 Sep 08 j 14:08	24° <del>♄</del> 04'47		minimum elong	-25 Aug 03 j 17:10	7° <del>♊</del> 35'04	1°12'46
opposition	-31 Nov 14 j 14:31	20° <del>♄</del> 34'29	-2°-2'-40	max. Earth dist.	-25 Aug 03 j 23:05	7° <del>♊</del> 36'55	10.35606 AU
min. Earth dist.	-31 Nov 14 j 08:54	20° <del>♄</del> 35'39	7.97018 AU	morning rise	-25 Aug 21 j 08:16	9° <del>♊</del> 47'10	
direct	-30 Jan 19 j 23:16	17° <del>♄</del> 05'46			-25 Oct 08 j 14:30	15° <del>♊</del>	
evening set	-30 May 04 j 09:00	25° <del>♄</del> 22'27		retrograde	-25 Nov 30 j 05:29	17° <del>♊</del> 24'05	
					-24 Jan 23 j 19:52	15° <del>♊</del>	
conjunction	-30 May 22 j 12:12	27° <del>♄</del> 44'15	-1°-25'-11	opposition	-24 Feb 05 j 06:26	14° <del>♊</del> 01'30	1°45'53
minimum elong	-30 May 22 j 12:16	27° <del>♄</del> 44'16	1°25'11	min. Earth dist.	-24 Feb 05 j 01:52	14° <del>♊</del> 02'25	8.41647 AU
max. Earth dist.	-30 May 22 j 20:35	27° <del>♄</del> 47'00	9.97058 AU	direct	-24 Apr 14 j 14:10	10° <del>♊</del> 33'45	
	-30 Jun 08 j 20:32	0° <del>♊</del>			-24 Jun 29 j 14:53	15° <del>♊</del>	
morning rise	-30 Jun 09 j 16:27	0° <del>♊</del> 06'24		evening set	-24 Jul 29 j 18:38	18° <del>♊</del> 26'51	
retrograde	-30 Sep 23 j 05:34	8° <del>♊</del> 27'56					
opposition	-30 Nov 28 j 23:04	4° <del>♊</del> 58'23	-1°-28'-38	conjunction	-24 Aug 16 j 08:57	20° <del>♊</del> 37'10	1°37'37
min. Earth dist.	-30 Nov 28 j 16:00	4° <del>♊</del> 59'51	7.98057 AU	minimum elong	-24 Aug 16 j 08:54	20° <del>♊</del> 37'09	1°37'37
direct	-29 Feb 03 j 14:11	1° <del>♊</del> 29'10		max. Earth dist.	-24 Aug 16 j 13:03	20° <del>♊</del> 38'26	10.47744 AU
evening set	-29 May 19 j 16:09	9° <del>♊</del> 46'56		morning rise	-24 Sep 02 j 18:29	22° <del>♊</del> 45'59	
					-24 Nov 26 j 03:38	0° <del>♊</del>	

# Planetary Phenomena of Saturn from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 32

Attention, astronomical year style is used: The year -24 in astronomical counting style is the year 25 BCE in historical counting style.

retrograde	-24 Dec 12 j 01:18	0°♄13'46		direct	-17 Jul 12 j 07:20	4°♄39'03	
	-24 Dec 28 j 01:17	30°♄♂		evening set	-17 Oct 22 j 15:20	11°♄43'25	
opposition	-23 Feb 17 j 09:40	26°♄52'37	2°13'06				
min. Earth dist.	-23 Feb 17 j 06:00	26°♄53'20	8.53899 AU	conjunction	-17 Nov 08 j 04:57	13°♄39'23	1°50'49
direct	-23 Apr 28 j 05:53	23°♄25'56		minimum elong	-17 Nov 08 j 05:00	13°♄39'24	1°50'48
	-23 Aug 02 j 04:21	0°♄		max. Earth dist.	-17 Nov 07 j 23:09	13°♄37'41	11.08414 AU
evening set	-23 Aug 12 j 04:31	1°♄11'04			-17 Nov 19 j 16:15	15°♄	
				morning rise	-17 Nov 24 j 16:50	15°♄34'53	
conjunction	-23 Aug 29 j 13:36	3°♄18'15	1°57'04	retrograde	-16 Mar 03 j 14:38	22°♄30'49	
minimum elong	-23 Aug 29 j 13:33	3°♄18'14	1°57'03	opposition	-16 May 12 j 22:56	19°♄13'32	2°04'29
max. Earth dist.	-23 Aug 29 j 16:40	3°♄19'12	10.59905 AU	min. Earth dist.	-16 May 13 j 04:35	19°♄12'30	9.09383 AU
morning rise	-23 Sep 15 j 17:38	5°♄23'56		direct	-16 Jul 23 j 05:38	15°♄54'00	
retrograde	-23 Dec 24 j 13:12	12°♄43'28		evening set	-16 Nov 01 j 21:19	22°♄55'03	
opposition	-22 Mar 02 j 07:09	9°♄23'36	2°33'09				
min. Earth dist.	-22 Mar 02 j 04:54	9°♄24'02	8.65930 AU	conjunction	-16 Nov 18 j 10:23	24°♄50'47	1°32'10
direct	-22 May 11 j 14:18	5°♄58'03		minimum elong	-16 Nov 18 j 10:25	24°♄50'48	1°32'09
evening set	-22 Aug 25 j 03:47	13°♄35'04		max. Earth dist.	-16 Nov 18 j 03:24	24°♄48'44	11.09545 AU
				morning rise	-16 Dec 04 j 22:39	26°♄46'18	
conjunction	-22 Sep 11 j 07:50	15°♄39'20	2°10'34		-15 Jan 04 j 01:15	0°♄	
minimum elong	-22 Sep 11 j 07:48	15°♄39'19	2°10'33	retrograde	-15 Mar 15 j 07:17	3°♄43'26	
max. Earth dist.	-22 Sep 11 j 09:22	15°♄39'48	10.71598 AU	opposition	-15 May 24 j 23:01	0°♄25'45	1°39'26
morning rise	-22 Sep 28 j 06:56	17°♄42'10		min. Earth dist.	-15 May 25 j 04:59	0°♄24'39	9.09302 AU
retrograde	-21 Jan 05 j 18:34	24°♄54'29			-15 May 30 j 19:30	30°♄♄	
opposition	-21 Mar 14 j 23:08	21°♄35'41	2°45'41	direct	-15 Aug 04 j 01:22	27°♄06'47	
min. Earth dist.	-21 Mar 14 j 22:55	21°♄35'43	8.77249 AU		-15 Oct 04 j 13:23	0°♄	
direct	-21 May 24 j 16:17	18°♄11'17		evening set	-15 Nov 13 j 01:56	4°♄05'53	
evening set	-21 Sep 06 j 16:57	25°♄40'23					
				conjunction	-15 Nov 29 j 15:15	6°♄01'50	1°10'00
conjunction	-21 Sep 23 j 16:27	27°♄42'04	2°17'57	minimum elong	-15 Nov 29 j 15:18	6°♄01'51	1°09'59
minimum elong	-21 Sep 23 j 16:26	27°♄42'03	2°17'57	max. Earth dist.	-15 Nov 29 j 08:32	5°♄59'51	11.08325 AU
max. Earth dist.	-21 Sep 23 j 15:36	27°♄41'48	10.82345 AU	morning rise	-15 Dec 16 j 04:25	7°♄57'49	
morning rise	-21 Oct 10 j 11:32	29°♄42'26		retrograde	-14 Mar 27 j 03:33	14°♄57'45	
	-21 Oct 12 j 23:25	0°♄		opposition	-14 Jun 05 j 23:54	11°♄39'25	1°10'32
retrograde	-20 Jan 17 j 18:27	6°♄48'42		min. Earth dist.	-14 Jun 06 j 05:30	11°♄38'24	9.06868 AU
opposition	-20 Mar 26 j 10:20	3°♄30'43	2°50'45	direct	-14 Aug 15 j 19:56	8°♄20'52	
min. Earth dist.	-20 Mar 26 j 11:46	3°♄30'27	8.87384 AU	evening set	-14 Nov 24 j 07:26	15°♄19'32	
direct	-20 Jun 05 j 10:51	0°♄07'28					
evening set	-20 Sep 17 j 20:53	7°♄29'06		conjunction	-14 Dec 10 j 21:25	17°♄16'07	0°45'02
				minimum elong	-14 Dec 10 j 21:26	17°♄16'07	0°45'02
conjunction	-20 Oct 04 j 16:35	9°♄28'36	2°19'19	max. Earth dist.	-14 Dec 10 j 14:35	17°♄14'06	11.04774 AU
minimum elong	-20 Oct 04 j 16:35	9°♄28'37	2°19'20	morning rise	-14 Dec 27 j 11:59	19°♄12'58	
max. Earth dist.	-20 Oct 04 j 13:49	9°♄27'47	10.91714 AU	retrograde	-13 Apr 08 j 04:48	26°♄17'13	
morning rise	-20 Oct 21 j 08:32	11°♄27'01		opposition	-13 Jun 18 j 02:41	22°♄58'05	0°38'41
retrograde	-19 Jan 28 j 13:09	18°♄28'34		min. Earth dist.	-13 Jun 18 j 08:37	22°♄57'00	9.02157 AU
opposition	-19 Apr 07 j 17:24	15°♄11'06	2°48'37	direct	-13 Aug 27 j 13:16	19°♄39'42	
min. Earth dist.	-19 Apr 07 j 19:35	15°♄10'42	8.95935 AU	evening set	-13 Dec 05 j 15:27	26°♄39'30	
direct	-19 Jun 17 j 23:58	11°♄48'57					
evening set	-19 Sep 29 j 16:51	19°♄03'49		conjunction	-13 Dec 22 j 06:21	28°♄37'05	0°18'05
				minimum elong	-13 Dec 22 j 06:22	28°♄37'05	0°18'06
conjunction	-19 Oct 16 j 09:47	21°♄01'39	2°14'57	max. Earth dist.	-13 Dec 21 j 22:43	28°♄34'50	10.99019 AU
minimum elong	-19 Oct 16 j 09:48	21°♄01'39	2°14'58		-12 Jan 02 j 22:31	0°♄	
max. Earth dist.	-19 Oct 16 j 06:21	21°♄00'38	10.99351 AU	morning rise	-12 Jan 07 j 22:55	0°♄35'12	
morning rise	-19 Nov 01 j 23:24	22°♄58'34		retrograde	-12 Apr 19 j 08:44	7°♄45'19	
retrograde	-18 Feb 09 j 07:51	29°♄56'47		opposition	-12 Jun 29 j 08:45	4°♄25'11	0°04'52
opposition	-18 Apr 19 j 21:11	26°♄39'37	2°39'47	min. Earth dist.	-12 Jun 29 j 15:07	4°♄24'00	8.95346 AU
min. Earth dist.	-18 Apr 20 j 00:01	26°♄39'05	9.02593 AU	desc. node	-12 Aug 21 j 17:34	1°♄20'24	
direct	-18 Jun 30 j 06:59	23°♄18'29		direct	-12 Sep 07 j 07:55	1°♄06'43	
	-18 Oct 07 j 06:24	0°♄		evening set	-12 Dec 16 j 03:30	8°♄09'14	
evening set	-18 Oct 11 j 06:21	0°♄27'29					
				conjunction	-11 Jan 01 j 19:48	10°♄08'10	0°-10'00
conjunction	-18 Oct 27 j 21:20	2°♄24'10	2°05'17	minimum elong	-11 Jan 01 j 19:48	10°♄08'10	0°10'00
minimum elong	-18 Oct 27 j 21:22	2°♄24'10	2°05'17	behind sun begin	-11 Jan 01 j 14:06	10°♄06'29	
max. Earth dist.	-18 Oct 27 j 17:19	2°♄22'59	11.04982 AU	behind sun end	-11 Jan 02 j 01:29	10°♄09'51	
morning rise	-18 Nov 13 j 09:35	4°♄20'07		max. Earth dist.	-11 Jan 01 j 12:09	10°♄05'54	10.91266 AU
retrograde	-17 Feb 20 j 23:28	11°♄16'25		morning rise	-11 Jan 18 j 14:41	12°♄07'53	
opposition	-17 May 01 j 22:41	7°♄59'18	2°24'51	retrograde	-11 May 01 j 20:11	19°♄25'19	
min. Earth dist.	-17 May 02 j 02:57	7°♄58'31	9.07123 AU	opposition	-11 Jul 11 j 18:45	16°♄03'59	0°-29'-43

Attention, astronomical year style is used: The year -11 in astronomical counting style is the year 12 BCE in historical counting style.

min. Earth dist.	-11 Jul 12 j 00:51	16° $\text{𐌸}$ 02'51	8.86683 AU		-5 Oct 29 j 08:00	30° $\text{𐌹}$ $\text{𐌹}$	
direct	-11 Sep 19 j 07:13	12° $\text{𐌸}$ 45'14		direct	-5 Dec 03 j 18:10	28° $\text{𐌹}$ 53'04	
evening set	-11 Dec 27 j 21:35	19° $\text{𐌸}$ 52'00			-4 Jan 07 j 13:34	0° $\text{𐌹}$	
				evening set	-4 Mar 14 j 11:24	6° $\text{𐌹}$ 47'50	
conjunction	-10 Jan 13 j 15:45	21° $\text{𐌸}$ 52'38	0°-38'-3				
minimum elong	-10 Jan 13 j 15:43	21° $\text{𐌸}$ 52'37	0°38'04	conjunction	-4 Apr 01 j 00:36	9° $\text{𐌹}$ 03'06	-2°-17'-56
max. Earth dist.	-10 Jan 13 j 09:27	21° $\text{𐌸}$ 50'44	10.81793 AU	minimum elong	-4 Apr 01 j 00:37	9° $\text{𐌹}$ 03'07	2°17'57
morning rise	-10 Jan 30 j 13:02	23° $\text{𐌸}$ 54'15		max. Earth dist.	-4 Apr 01 j 02:18	9° $\text{𐌹}$ 03'39	10.13865 AU
	-10 Apr 03 j 19:02	0° $\text{𐌹}$		morning rise	-4 Apr 18 j 18:04	11° $\text{𐌹}$ 19'47	
retrograde	-10 May 14 j 15:33	1° $\text{𐌹}$ 20'11		retrograde	-4 Aug 04 j 02:18	19° $\text{𐌹}$ 40'05	
	-10 Jun 25 j 08:18	30° $\text{𐌹}$ $\text{𐌹}$		opposition	-4 Oct 11 j 05:37	16° $\text{𐌹}$ 10'19	-2°-49'-27
opposition	-10 Jul 24 j 09:19	27° $\text{𐌸}$ 57'33	-1°-3'-50	min. Earth dist.	-4 Oct 11 j 03:25	16° $\text{𐌹}$ 10'46	8.09764 AU
min. Earth dist.	-10 Jul 24 j 14:08	27° $\text{𐌸}$ 56'38	8.76492 AU	direct	-4 Dec 16 j 13:09	12° $\text{𐌹}$ 44'33	
direct	-10 Oct 01 j 08:50	24° $\text{𐌸}$ 38'18		evening set	-3 Mar 29 j 01:39	20° $\text{𐌹}$ 47'32	
	-10 Dec 24 j 01:12	0° $\text{𐌹}$					
evening set	-9 Jan 08 j 23:11	1° $\text{𐌹}$ 50'49		conjunction	-3 Apr 15 j 19:25	23° $\text{𐌹}$ 05'18	-2°-11'-56
				minimum elong	-3 Apr 15 j 19:27	23° $\text{𐌹}$ 05'19	2°11'57
conjunction	-9 Jan 25 j 19:27	3° $\text{𐌹}$ 53'24	-1°-5'-2	max. Earth dist.	-3 Apr 15 j 22:55	23° $\text{𐌹}$ 06'26	10.05920 AU
minimum elong	-9 Jan 25 j 19:25	3° $\text{𐌹}$ 53'23	1°05'04	morning rise	-3 May 03 j 16:49	25° $\text{𐌹}$ 24'18	
max. Earth dist.	-9 Jan 25 j 14:18	3° $\text{𐌹}$ 51'50	10.70966 AU		-3 Jun 11 j 23:08	0° $\text{𐌹}$	
morning rise	-9 Feb 11 j 19:24	5° $\text{𐌹}$ 57'10		retrograde	-3 Aug 18 j 20:41	3° $\text{𐌹}$ 48'29	
retrograde	-9 May 27 j 18:17	13° $\text{𐌹}$ 32'37		opposition	-3 Oct 25 j 11:08	0° $\text{𐌹}$ 18'19	-2°-37'-7
opposition	-9 Aug 06 j 05:36	10° $\text{𐌹}$ 08'36	-1°-35'-59	min. Earth dist.	-3 Oct 25 j 07:31	0° $\text{𐌹}$ 19'03	8.03053 AU
min. Earth dist.	-9 Aug 06 j 09:09	10° $\text{𐌹}$ 07'55	8.65180 AU		-3 Oct 29 j 04:07	30° $\text{𐌹}$ $\text{𐌹}$	
direct	-9 Oct 13 j 15:44	6° $\text{𐌹}$ 48'39		direct	-3 Dec 30 j 15:40	26° $\text{𐌹}$ 51'19	
evening set	-8 Jan 21 j 09:35	14° $\text{𐌹}$ 08'11			-2 Feb 28 j 12:58	0° $\text{𐌹}$	
	-8 Jan 28 j 11:33	15° $\text{𐌹}$		evening set	-2 Apr 12 j 23:49	5° $\text{𐌹}$ 01'01	
conjunction	-8 Feb 07 j 08:11	16° $\text{𐌹}$ 12'59	-1°-29'-40	conjunction	-2 Apr 30 j 21:51	7° $\text{𐌹}$ 20'50	-1°-57'-53
minimum elong	-8 Feb 07 j 08:08	16° $\text{𐌹}$ 12'58	1°29'42	minimum elong	-2 Apr 30 j 21:55	7° $\text{𐌹}$ 20'51	1°57'53
max. Earth dist.	-8 Feb 07 j 03:39	16° $\text{𐌹}$ 11'35	10.59240 AU	max. Earth dist.	-2 May 01 j 02:49	7° $\text{𐌹}$ 22'28	10.00587 AU
morning rise	-8 Feb 24 j 11:09	18° $\text{𐌹}$ 19'09		morning rise	-2 May 18 j 22:43	9° $\text{𐌹}$ 41'35	
retrograde	-8 Jun 09 j 05:52	26° $\text{𐌹}$ 04'40			-2 Jul 04 j 04:43	15° $\text{𐌹}$	
opposition	-8 Aug 18 j 08:03	22° $\text{𐌹}$ 39'15	-2°-4'-33	retrograde	-2 Sep 02 j 15:23	18° $\text{𐌹}$ 06'35	
min. Earth dist.	-8 Aug 18 j 10:46	22° $\text{𐌹}$ 38'44	8.53230 AU		-2 Nov 04 j 00:52	15° $\text{𐌹}$ $\text{𐌹}$	
direct	-8 Oct 25 j 04:34	19° $\text{𐌹}$ 18'22		opposition	-2 Nov 08 j 18:51	14° $\text{𐌹}$ 36'24	-2°-14'-55
evening set	-7 Feb 02 j 06:03	26° $\text{𐌹}$ 46'01		min. Earth dist.	-2 Nov 08 j 14:20	14° $\text{𐌹}$ 37'21	7.99154 AU
				direct	-1 Jan 14 j 01:09	11° $\text{𐌹}$ 08'20	
conjunction	-7 Feb 19 j 07:28	28° $\text{𐌹}$ 53'14	-1°-50'-36		-1 Mar 22 j 03:41	15° $\text{𐌹}$	
minimum elong	-7 Feb 19 j 07:25	28° $\text{𐌹}$ 53'14	1°50'36	evening set	-1 Apr 28 j 03:24	19° $\text{𐌹}$ 22'41	
max. Earth dist.	-7 Feb 19 j 03:36	28° $\text{𐌹}$ 52'02	10.47126 AU				
	-7 Feb 28 j 05:11	0° $\text{𐌹}$		conjunction	-1 May 16 j 05:04	21° $\text{𐌹}$ 43'53	-1°-36'-26
morning rise	-7 Mar 08 j 13:46	1° $\text{𐌹}$ 01'59		minimum elong	-1 May 16 j 05:08	21° $\text{𐌹}$ 43'55	1°36'27
retrograde	-7 Jun 23 j 00:51	8° $\text{𐌹}$ 57'36		max. Earth dist.	-1 May 16 j 11:17	21° $\text{𐌹}$ 45'56	9.98261 AU
opposition	-7 Aug 31 j 16:37	5° $\text{𐌹}$ 30'50	-2°-27'-47	morning rise	-1 Jun 03 j 08:31	24° $\text{𐌹}$ 05'39	
min. Earth dist.	-7 Aug 31 j 18:51	5° $\text{𐌹}$ 30'24	8.41162 AU		-1 Jul 26 j 03:31	0° $\text{𐌹}$	
direct	-7 Nov 07 j 00:33	2° $\text{𐌹}$ 08'49		retrograde	-1 Sep 17 j 07:11	2° $\text{𐌹}$ 28'16	
evening set	-6 Feb 15 j 13:05	9° $\text{𐌹}$ 45'20			-1 Nov 10 j 14:17	30° $\text{𐌹}$ $\text{𐌹}$	
				opposition	-1 Nov 23 j 02:57	28° $\text{𐌹}$ 58'30	-1°-44'-9
conjunction	-6 Mar 04 j 17:57	11° $\text{𐌹}$ 55'10	-2°-6'-26	min. Earth dist.	-1 Nov 22 j 21:47	28° $\text{𐌹}$ 59'34	7.98358 AU
minimum elong	-6 Mar 04 j 17:55	11° $\text{𐌹}$ 55'09	2°06'26	direct	00 Jan 28 j 14:56	25° $\text{𐌹}$ 29'32	
max. Earth dist.	-6 Mar 04 j 15:36	11° $\text{𐌹}$ 54'25	10.35147 AU		00 Apr 11 j 00:55	0° $\text{𐌹}$	
morning rise	-6 Mar 22 j 03:46	14° $\text{𐌹}$ 06'34		evening set	00 May 12 j 09:29	3° $\text{𐌹}$ 46'12	
retrograde	-6 Jul 07 j 02:25	22° $\text{𐌹}$ 11'47					
opposition	-6 Sep 14 j 07:24	18° $\text{𐌹}$ 43'46	-2°-43'-58	conjunction	00 May 30 j 13:41	6° $\text{𐌹}$ 07'56	-1°-8'-58
min. Earth dist.	-6 Sep 14 j 08:35	18° $\text{𐌹}$ 43'32	8.29493 AU	minimum elong	00 May 30 j 13:44	6° $\text{𐌹}$ 07'57	1°08'58
direct	-6 Nov 20 j 05:51	15° $\text{𐌹}$ 20'31		max. Earth dist.	00 May 30 j 20:46	6° $\text{𐌹}$ 10'15	9.99095 AU
evening set	-5 Mar 01 j 06:52	23° $\text{𐌹}$ 06'15		morning rise	00 Jun 17 j 18:22	8° $\text{𐌹}$ 29'47	
				retrograde	00 Sep 30 j 18:31	16° $\text{𐌹}$ 47'11	
conjunction	-5 Mar 18 j 15:40	25° $\text{𐌹}$ 18'48	-2°-15'-53	opposition	00 Dec 06 j 09:38	13° $\text{𐌹}$ 18'10	-1°-6'-57
minimum elong	-5 Mar 18 j 15:39	25° $\text{𐌹}$ 18'47	2°15'54	min. Earth dist.	00 Dec 06 j 03:59	13° $\text{𐌹}$ 19'21	8.00703 AU
max. Earth dist.	-5 Mar 18 j 15:15	25° $\text{𐌹}$ 18'40	10.23843 AU	direct	01 Feb 11 j 06:22	9° $\text{𐌹}$ 48'36	
morning rise	-5 Apr 05 j 05:13	27° $\text{𐌹}$ 32'52		evening set	01 May 27 j 15:08	18° $\text{𐌹}$ 05'08	
	-5 Apr 25 j 11:14	0° $\text{𐌹}$					
retrograde	-5 Jul 21 j 11:05	5° $\text{𐌹}$ 46'36		conjunction	01 Jun 14 j 20:12	20° $\text{𐌹}$ 26'26	0°-37'-23
opposition	-5 Sep 28 j 04:00	2° $\text{𐌹}$ 17'33	-2°-51'-35	minimum elong	01 Jun 14 j 20:14	20° $\text{𐌹}$ 26'27	0°37'23
min. Earth dist.	-5 Sep 28 j 03:37	2° $\text{𐌹}$ 17'38	8.18795 AU	max. Earth dist.	01 Jun 15 j 03:51	20° $\text{𐌹}$ 28'55	10.03001 AU